

NATO UNCLASSIFIED

Book II – The Prospective Contract  
RFQ-CO-115363-PRT-TDCIS



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

**Tactical Deployable Communications and Information Systems (TDCIS)  
for the Portuguese Army**

**RFQ-CO-115363-PRT-TDCIS**

**BOOK II**

**THE PROSPECTIVE CONTRACT**

**ΑΚΡΙΒΕΣ ΑΝΤΙΓΡΑΦΟ**

Ο υπάλληλος της Μ.Α. ΝΑΤΟ  
Σταύρος Τσάκωνας  
Τμηματάρχης Α', ΕΠ.&ΠΛ.

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**GENERAL INDEX**

**BOOK II - THE PROSPECTIVE CONTRACT**

Signature Sheet

Part I Schedule of Supplies and Services

Part II Contract Special Provisions

Part III BOA Contract/ General Provisions

Part IV Statement of Work

**SIGNATURE SHEET**

<b>NCI Agency PURCHASE ORDER</b>	
<b>1. Original Number __ of</b>	<b>2. PO Number : XXXXXXXX</b>
<b>3. Contract Number: CO-115363-PRT-TDCIS</b>	<b>4. Effective date (EDC): SEE BLOCK 17</b>
<b>5. Contractor: TBD</b>	<b>6. Purchaser:</b> The General Manager NATO Communications and Information Agency Boulevard Leopold III B-1110 Bruxelles Tel: +32(0) 6544 6103
<b>7. CONTRACT SCOPE:</b> This is a Firm Fixed Price contract for the provision of Tactical Deployable Communications and Information Systems (TDCIS) for the Portuguese Army with a secure, modular, sustainable and interoperable means of communications and information exchange with the other deployed PRT Army units connected to the Portuguese National Defence Network (NDN), or with deployed elements of mission partners connected to the NATO Federated Mission Network (FMN).  The Contractor shall deliver the items specified in the Schedule of Supplies and Services in the manner and at the time and location specified in the terms of this Contract and the Statement of Work.	
<b>8. TOTAL AMOUNT OF CONTRACT :</b> Currency – Excluding VAT _____ Firm Fixed Price	
<b>9. PERIOD OF PERFORMANCE</b> As stated in Schedule of Supplies and Services and Special Provisions	<b>10. DELIVERY SITE</b> As stated in Schedule of Supplies and Services and Special Provisions INCOTERMS 2020
<b>11. CONTRACT</b> This Contract consists of the following parts and named documents: a) Part I Schedule of Supplies and Services b) Part II Special Contract Provisions and Annexes c) Part III NCI Agency General Provisions/NCI Agency Basic Ordering Agreement General Provisions and Appendix 1, of the Basic Ordering Agreement NCI/BOA/XXXXX XX Month 20xx, incorporated herein by reference. d) Part IV Statement of Work and Annexes	
<b>12. Signature of Contractor</b>	<b>13. Signature of Purchaser</b>
<b>14. Name and Title of Signer</b>	<b>15. Name and Title of Signer</b>
<b>16. Date signed by the Contractor</b>	<b>17. Date signed by the Purchaser</b>

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**Tactical Deployable Communications and Information Systems  
(TDCIS)  
for the Portuguese Army**

**RFQ-CO-115363-PRT-TDCIS**

**PART I**

**SCHEDULE OF SUPPLIES AND SERVICES**

RFQ-CO-115363-PRT-TDCIS CLIN Summary									
BASE CONTRACT									
CLIN	Description	SOW Reference	Required Completion Date	Delivery Destination	Delivery Form	Unit of measure	Quantity	Unit Price	Total Firm Fixed Price
								Declare Currency =>	
<b>1</b>	<b>CLIN 1 - WP 1 Provide System Design</b>								
<b>1.1</b>	<b>System Prelims</b>								
1.1.1	Deliver a System Design Review Plan (SDP) to meet Purchaser approval	2.1.2	EDC + 6 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
1.1.2	Deliver an Initial Design Specification to meet Purchaser approval	2.1.3	EDC + 3 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
1.1.3	Deliver System Requirements Review (SRR) Documentation Support to meet Purchaser approval	2.1.10	EDC + 6 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
<b>1.2</b>	<b>System Requirements</b>								
1.2.1	Facilitate and run System Requirement Reviews (SRR) for purchaser and stakeholders	2.1.10	EDC + 33 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
1.2.2	Deliver System Requirements Deficiency Logs to meet Purchaser approval	6.7	EDC + 33 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
<b>1.3</b>	<b>Design Configuration Control</b>			NCIA, Mons Office					
1.3.1	Deliver the Hardware Configuration Items (HCI's) to meet Purchaser approval	6.4	EDC + 33 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
1.3.2	Deliver the Software Configuration Items (SCI's) to meet Purchaser approval	6.4	EDC + 33 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
<b>1.4</b>	<b>System Design Events</b>								
1.4.1	Facilitate and complete the Preliminary Design Review (PDR) to purchaser's approval	2.1.12	EDC + 12 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
1.4.2	Facilitate and complete the Critical Design Review (CDR) to purchaser's approval	2.1.13	EDC + 21 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
<b>1.5</b>	<b>System Design Baselines</b>			NCIA, Mons Office	MS Word / PDF				
1.5.1	Generate TDCIS Functional Baseline (FBL) to meet Purchaser approval	6.6.1	EDC + 33 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
1.5.2	Generate TDCIS Allocated Baseline (ABL) to meet Purchaser approval	6.6.2	EDC + 82 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
1.5.3	Generate TDCIS Product Baseline (PBL) to meet Purchaser approval	6.6.3	EDC + 87 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-

1.5.4	Generate TDCIS Operational Baseline (OBL) to meet Purchaser approval	6.6.4	EDC + 106 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
<b>1.6</b>	<b>System Design Documentation</b>								
1.6.1	Deliver the TDCIS Design Blueprint / High Level Design (HLD) for all TDCIS Node Shelters and Trailers to meet Purchaser approval	2.1.4	EDC + 10 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
1.6.2	Deliver the Low Level Design Document (LLD) for all TDCIS Node Shelters and Trailers to meet Purchaser approval	2.1.5	EDC + 21 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
1.6.3	Deliver the Detailed Level Design Document (DLD) for all TDCIS Node Shelters and Trailers to meet Purchaser approval	2.1.6	EDC + 33 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
1.6.4	Deliver the Interface Control Documents (ICD) for all TDCIS Node Shelters and Trailers to meet Purchaser approval	2.1.7	EDC + 33 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
1.6.5	Deliver the Systems Administrator Guide (SAG) for all TDCIS Node Shelters and Trailers to meet Purchaser approval	5.4.2	EDC + 64 weeks	NCIA, Mons Office	E-Format and Hard Copy	Document	40	-	-
<b>TOTAL PRICE CLIN 1 (BASE-EVALUATED) System Design</b>									-
<b>2</b>	<b>CLIN 2 - WP 2 Qualify First Articles</b>								
<b>2.1</b>	<b>Batch No 1 First Article Inspections (FAI)</b>								
2.1.1	Make ready all Batch No 1 Modules for purchaser inspection and acceptance	2.2 & Table 2	EDC + 36 weeks	System Build Facility, Portugal	Provision	Assets	8	-	-
2.1.2	Facilitate, a phased FAI on all Modules and Equipment of the Batch No 1 Node Prototypes	2.2.7	EDC + 38 weeks	System Build Facility, Portugal	Provision	Assets	6	-	-
2.1.3	Facilitate a phased FAI on all Modules and Equipment of the GAR-T Relay and Radio Access Point (RAP)	2.2.7	EDC + 66 weeks	System Build Facility, Portugal	Provision	Assets	2	-	-
<b>2.2</b>	<b>Batch No 1 First Article Acceptance Testing (FAAT)</b>								
2.2.1	Manufacture, build, assemble and/or make ready all Batch No 1 Modules and Systems in readiness for FAAT	2.2.6 & Table 2	EDC + 74 weeks	System Build Facility, Portugal	Provision	Assets	15	-	-
2.2.2	Deliver TDCIS BatchNo 1 Test Scripts to the Purchaser for Assurance and Approval; Scripts should cover all BatchNo 1 Shelter Node Types	2.2.8	EDC + 74 weeks	NCIA, Mons Office	Provision	Assets	8	-	-
2.2.3	Facilitate, a phased FAAT on all Batch No 1 Modules and Equipment for each of the Shelter Node Prototypes to meet Purchaser approval	2.2.8	EDC + 79 weeks	System Build Facility,	Provision	Assets	13	-	-

				Portugal					
2.2.4	Facilitate, a phased FAAT on all Batch No 1 Modules and Equipment for the GAR-T Relay and RAP to meet Purchaser approval	2.2.8	EDC + 79 weeks	System Build Facility, Portugal	Provision	Assets	2	-	-
2.2.5	Conduct a phased Batch No 1 FAAT to meet Purchaser approval on all Nodes, GAR-T relays and RAP	2.2.8	EDC + 82 weeks	System Build Facility, Portugal	Provision	Assets	15	-	-
2.2.6	Conduct Vulnerability testing (FAAT) has been succesfully conducted on the Batch No 1 System to meet Purchaser approval	2.2.4	EDC + 82 weeks	System Build Facility, Portugal	Provision	Assets	1	-	-
2.2.7	Conduct Environmental testing has been succesfully conducted on the Batch No 1 System to meet Purchaser approval	2.2.4	EDC + 82 weeks	System Build Facility, Portugal	Provision	Assets	1	-	-
2.2.8	Conduct Dynamic testing has been succesfully conducted on the Batch No 1 System to meet Purchaser approval	2.2.4	EDC + 87 weeks	System Build Facility, Portugal	Provision	Assets	1	-	-
<b>2.3</b>	<b>Batch No 1 Integration Testing (+PFE)</b>								
2.3.1	Conduct Integration Testing and Certify Ready for Use all Batch No 1 Node Types, inclusive of all Purchaser Furnished Equipment (PFE)	2.2.9	EDC + 82 weeks	System Build Facility, Portugal	Provision	Service	1	-	-
<b>2.4</b>	<b>Batch No 1 First Article Systems Test (FAST)</b>								
2.4.1	Facilitate for Batch No 1 FAST, replicant NATO FMN and PRT National connectivity; inclusive of any dummy User or IP Addressing	2.2.9	EDC + 95 weeks	System Build Facility, Portugal	Provision	Service	1	-	-
2.4.2	Certify that Vulnerability testing (FAST) has been succesfully conducted on the Batch No 1 System to meet Purchaser approval	2.2.9	EDC + 95 weeks	System Build Facility, Portugal	Provision	Assets	1	-	-
2.4.3	Conduct a complete Batch No 1 FAST on all Node Types and Trailers; inclusive of PFE, utilising dummy User or IP Addressing	2.2.9	EDC + 95 weeks	System Build Facility, Portugal	Provision	Service	1	-	-
2.4.4	Provide a Batch No 1 Certificate Of Conformity (CoC) for all Node Types and Trailers; in preparation for UAT(E)	2.2.9	EDC + 95 weeks	NCIA, Mons Office	Certificate	Document	15	-	-



2.4.5	Provide all Batch No 1 Assets with NATO Codification and asset tagging	2.2.9	EDC + 95 weeks	NCIA, Mons Office	Certificate	Document	15	-	-
2.4.6	Provide a notice to the Purchaser for Batch No 1 UAT(E) Readiness State	2.2.9	EDC + 95 weeks	NCIA, Mons Office	Certificate	Document	1	-	-
<b>TOTAL PRICE CLIN 2 (BASE-EVALUATED) (Batch No 1) First Article Inspections</b>									
<b>3</b>	<b>CLIN 3 - WP 3 Support Security Accreditation</b>								
<b>3.1</b>	<b>Security</b>								
3.1.1	Deliver a Security Accreditation Plan (SAP) to meet Purchaser approval	2.3.1	EDC + 6 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
3.1.2	Deliver a Security Accreditation Documentation Set (SADS) to meet Purchaser approval	2.3.3	EDC + 82 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
3.1.3	Deliver a Site Security Survey Report (SSR) to meet Purchaser approval	2.5.1	EDC + 65 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
3.1.4	Deliver a Security Risk Assessment (SRA) to meet Purchaser approval	2.3.3	EDC + 65 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
3.1.5	Deliver System Specific Security Requirement Statements (SSRS) to meet Purchaser approval	2.3.3	EDC + 66 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
3.1.6	Deliver the Generic System Interconnection Security Requirements Statement (SISRS) to meet Purchaser approval	2.3.3	EDC + 66 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
3.1.7	Generate Security Operating Procedures (SecOps) to meet Purchaser approval	2.3.3	EDC + 87 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
3.1.8	Deliver the Security Test and Verification Plan (STVP) to meet Purchaser approval	2.3.3	EDC + 82 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
3.1.9	Deliver the Security Test and Verification Report (STVR) to meet Purchaser approval	2.3.3	EDC + 65 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
3.1.10	Deliver the Electronic Security Environment (ESE) to meet Purchaser approval	2.3.3	EDC + 74 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
3.1.11	Deliver Conformance Statement (ESECS) to meet Purchaser approval	2.3.3	EDC + 106 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
<b>TOTAL PRICE CLIN 3 (BASE-EVALUATED) Security Accreditation</b>									
<b>4</b>	<b>CLIN 4 - WP 4 Conduct Training</b>								
<b>4.1</b>	<b>Training Prelims</b>								
4.1.1	Conduct a site survey of the customer provided training facility to be employed by the contractor and submit Site Survey Reports for purchaser approval.	2.5.1	EDC + 72 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
4.1.2	Deliver a Training Product Breakdown to the purchasers approval	D.7.5.2	EDC + 72 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
<b>4.1.3</b>	<b>Deliver Training Courseware (TC) and any media students shall be</b>								

	<b>expecetd to use to the purchasers approval</b>								
4.1.3.1	TC Draft Version	D.7.5	EDC + 72 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
4.1.3.2	TC Final Version	D.7.5	EDC + 72 weeks	NCIA, Mons Office	MS Word / PDF	Document	20	-	-
<b>4.2</b>	<b>Training Need Analysis (TNA)</b>								
<b>4.2.1</b>	<b>Deliver Maintenance Task Analysis (MTA)</b>								
4.2.1.1	Submit MTA Draft	4.5	EDC + 8 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
4.2.1.2	Submit MTA Final Draft to meet Purchaser's approval	4.5	EDC + 17 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
4.2.1.3	Submit MTA Final to meet Purchaser's Approval	4.5	EDC + 91 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
4.2.2	Generate Operational Tasking Inventory (OTI) for purchaser review and acceptance		EDC + 64 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
4.2.3	Produce a Training Need Analysis (TNA) with Media Analysis to the purchaser for approval	D.7.3	EDC + 20 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
<b>4.3</b>	<b>Deliver Training</b>								
4.3.1	Deliver Training Systems from System Build Facility, Portugal to the agreed Training Facility	D.7.5	EDC + 90 weeks	Training Facility, Portugal	Node Shelters	Assets	1	-	-
4.3.2	Install and Validate System Training Units; as specified in the training plan; to the purchasers approval	D.7.5	EDC + 102 weeks	Training Facility, Portugal			1	-	-
<b>4.3.3</b>	<b>Deliver Training Documentation</b>								
4.3.3.1	Training Documentation draft version to meet Purchaser's Approval	4.11	EDC + 27 weeks	NCIA, Mons Office	MS Word / PDF	Document	2	-	-
4.3.3.2	Training Documentation final version to meet Purchaser's Approval	4.11	EDC + 48 weeks	NCIA, Mons Office	MS Word / PDF	Document	2	-	-
<b>4.3.4</b>	<b>In accordance with approved training plan</b>								
4.3.4.1	Deliver classroom based training courses for Operators, Maintainers & Instructors	4.11	EDC + 72 weeks	Training Facility, Portugal	Service	Trained Student	30	-	-
4.3.4.2	Provide Purchaser with Operators, Maintainers & Instructors course reports	4.11	EDC + 74 weeks	NCIA, Mons Office	MS Word / PDF	Document	30	-	-
4.3.4.3	Training Execution to Testing personnel	4.11	EDC + 41 weeks	Training Facility, Portugal	Service	Trained Student	10	-	-
4.3.4.4	Training Execution to Operators	4.11	FAAT + 8	Training	Service	Trained	10	-	-

			weeks	Facility, Portugal		Student			-
4.3.4.5	Training Execution to Maintainers	4.11	FAAT + 8 weeks	Training Facility, Portugal	Service	Trained Student	10		-
4.3.4.6	Training Execution to Instructors	4.11	FAAT + 8 weeks	Training Facility, Portugal	Service	Trained Student	10		-
4.3.5	Provide Contractor Support with on-the-job and repetition hands-on training	D.7.7	EDC + 106 weeks	OpTEval location	Provision	Service	1		-
4.3.6	Deliver in accordance with the approved training plan, equipment based training courses and evaluation	D.7.7	EDC + 106 weeks	Training Facility, Portugal	Provision	Service	1		-
<b>TOTAL PRICE CLIN 4 (BASE-EVALUATED) Training</b>									-
<b>5</b>	<b>CLIN 5 - WP 5 Conduct User Testing &amp; Provisional Systems Acceptance (PSA)</b>								
<b>5.1</b>	<b>Conduct a UAT(E)</b>								
5.1.1	Conduct a pre-UAT(E) Site Survey and submit an SSR for Purchaser approval	3.5	EDC + 87 weeks	Oporto, Portugal	Provision	Service	1		-
5.1.2	Deliver all Batch No 1 Node Types, Non-CIS, Software and Ancillaries from System Build Facility to UAT(E) Location	2.5.3 & Table 2	EDC + 90 weeks	Oporto, Portugal	Provision	Service	15		-
5.1.3	Supply all renewable and perpetual licensing for all Batch No 1 CIS, with full permission sets that allow the End User to fully utilise the TDCIS provided capability	2.7.1	EDC + 168 weeks	Contractor's Factory	Provision	Assets	15		-
5.1.4	Assemble, configure and confirm that all Batch No 1 Nodes, Trailers and Ancillaries are fit for purpose and ready for UAT(E)	2.5.3	EDC + 87 weeks	Oporto, Portugal	Provision	Service	15		-
5.1.5	Provide and make available all specialist tooling with relevant documentation in support of the UAT(E)	2.5.3	EDC + 87 weeks	Oporto, Portugal	Provision	Service	15		-
<b>5.1.6</b>	<b>Provide and make available all 'As-built' System Design Documentation in support to Oporto, Portugal in support of the UAT(E)</b>								
5.1.6.1	Sys Design Draft Version	2.5.3	EDC + 12 weeks	Oporto, Portugal	Provision	Document	1		-
5.1.6.2	Sys Design Final Version	2.5.3	EDC + 86 weeks	Oporto, Portugal	Provision	Document	15		-
<b>5.1.7</b>	<b>Provide and make available all 'As-built' Deployment, User &amp; Maintainer Documentation in support to Oporto, Portugal in support of the UAT(E)</b>								
5.1.7.1	Sys Manuals Draft Version	2.5.3	EDC + 12 weeks	Oporto, Portugal	Provision	Document	1		-

5.1.7.2	Sys Manuals Final Version	2.5.3	EDC + 86 weeks	Oporto, Portugal		Document	15	-	-
<b>5.1.8</b>	<b>Provide and make available all 'As-built' Reference Information in support to Oporto, Portugal in support of the UAT(E)</b>								
5.1.8.1	Submit Reference Information Draft Version to meet Purchaser's Approval	2.5.3	EDC + 42 weeks	Oporto, Portugal	Provision	Document	15	-	-
5.1.8.2	Submit Reference Information Final Version to meet Purchaser's Approval	2.5.3	EDC + 69 weeks	Oporto, Portugal				-	-
5.1.9	Facilitate a full pre-UAT(E) Systems Integration Test and IV&V Assessment; in readiness for UAT(E)	2.5.3	EDC + 87 weeks	Oporto, Portugal	Provision	Service	1	-	-
5.1.10	Conduct Security Testing and accreditation in readiness for Batch No 1 FAST and the Certificate Of Conformity (CoC)	2.5.3	EDC + 79 weeks	Oporto, Portugal	Provision	Service	1	-	-
5.1.11	Provide a Batch No 1 Certificate Of Conformity (CoC) for all Node Types and Trailers; i.e. UAT(E) Ready	2.5.3	EDC + 79 weeks	NCIA, Mons Office	Certificate	Document	8	-	-
5.1.12	Achieve NATO Security Authority for Testing	2.5.3	EDC + 90 weeks	NCIA, Mons Office	Certificate	Document	1	-	-
5.1.13	Facilitate and Certify the TDCIS Interoperability to the NATO FMN Systems	2.5.3	EDC + 90 weeks	Oporto, Portugal	Provision	Service	1	-	-
5.1.14	Achieve and Certify Portuguese National Security Authority for Testing	2.5.3	EDC + 90 weeks	NCIA, Mons Office	Certificate	Document	1	-	-
5.1.15	Facilitate and Certify TDCIS Interoperability to the Portuguese National CIS	2.5.3	EDC + 90 weeks	Oporto, Portugal	Provision	Service	1	-	-
5.1.16	Facilitate a pre-UAT(E ) Readiness Meeting directed at Purchaser and their Stakeholders	2.5.3	EDC + 90 weeks	Oporto, Portugal	Provision	Service	1	-	-
5.1.17	Conduct and run a full TDCIS UAT(E) to meet Purchaser approval	2.5.3	EDC + 102 weeks	Oporto, Portugal	Provision	Service	1	-	-
5.1.18	Facilitate a post-UAT(E) Observations Meeting for the Purchasers Approval	2.5.3	EDC + 97 weeks	Oporto, Portugal	Provision	Service	1	-	-
5.1.19	Deliver a UAT(E) Successful Completion to the Purchaser	2.5.3	EDC + 97 weeks	Oporto, Portugal	Provision	Service	1	-	-
5.1.20	Provide a Pre-Provisional System Acceptance (PSA) ready report to the Purchaser for Batch No 1 PSA Readiness State	2.5.3	EDC + 97 weeks	NCIA, Mons Office	Certificate	Document	1	-	-
<b>5.2</b>	<b>Conduct a PSA</b>								
5.2.1	Facilitate and conduct a PSA to the satisfaction of the purchaser	2.5.6	EDC + 97 weeks	Oporto, Portugal	Provision	Service	1	-	-
5.2.2	Validate for PSA the Requirements Tracability Matrix (RTM) with the purchaser	8.3.4	EDC + 106 weeks	Oporto, Portugal	Provision	Service	1	-	-
5.2.3	Validate for PSA the Verification & Validation Requirements Matrix (VVRM) with the purchaser	2.2.2	EDC + 106 weeks	Oporto, Portugal	Provision	Service	1	-	-
5.2.4	Provide an interim Configured Software Release Package with all Shelter Node Images for the purchasers approval	2.5.2	EDC + 106 weeks	Oporto, Portugal	Provision	Service	8	-	-

5.2.5	Provide a PSA Report and relevant meeting minutes with actions for the purchasers approval	2.5.6	EDC + 106 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
5.2.6	Certify PSA completed successfully to Purchaser's approval	2.5.6	EDC + 106 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
5.2.7	Provide a notice to the Purchaser for Batch No 1 OpTEVal Readiness State	2.5.6	EDC + 106 weeks	NCIA, Mons Office	Certificate	Document	1	-	-
5.2.8	Handover with full documentation the Batch No 1 Shelter Node Types, Non-CIS, Software and Ancillaries to the PRT	2.5.6	EDC + 106 weeks	NCIA, Mons Office	MS Word / PDF	Document	15	-	-
5.2.9	Provide a Inventory/Material Data Sheet (MDS) for the purchasers approval	4.8	EDC + 106 weeks	NCIA, Mons Office	MS Word / PDF	Document	15	-	-
<b>TOTAL PRICE CLIN 5 (BASE-EVALUATED) Provisional Systems Acceptance (PSA)</b>									
<b>6</b>	<b>CLIN 6 - WP 6 Support Operational Technical Evaluation</b>								
<b>6.1</b>	<b>Support to OPTEVAL</b>								
6.1.1	Provide Contractor Support to the TDCIS transition and relocation from the UAT(E ) location to the PRT OpTEval location	2.6	EDC + 142 weeks	NCIA, Mons Office	Certificate	Document	1	-	-
6.1.2	Provide Contractor support to the Customers system relocation and re-configuration of the BatchNo 1 Assets	2.6	EDC + 142 weeks	OpTEval location	Provision	Service	1	-	-
6.1.3	Provide a Batch No 1 Certificate Of Conformity (CoC) for all Node Types and Trailers; i.e. OpTEVal Ready	2.6	EDC + 142 weeks	NCIA, Mons Office	Certificate	Document	1	-	-
6.1.4	Provide Contractor Support to TDCIS functionality during the OpTEVal Capability evaluation	2.6	EDC + 142 weeks	OpTEval location	Provision	Service	1	-	-
6.1.5	Provide and maintain a log book of events, relevant to FSA, for the purchasers approval	2.6	EDC + 142 weeks	NCIA, Mons Office	PDF	Document	1	-	-
<b>6.2</b>	<b>Post OpTEVal Service Transition</b>								
6.2.1	Provide Contractor support to the In-Service Transition of all Batch No 1 Assets and CIS Services for the purchasers approval	3.2.12	EDC + 142 weeks	OpTEval location	Provision	Service	1	-	-
6.2.2	Carry out any retrospective amendments to the BatchNo 1 Documentation for the purchasers approval	3.2.12	EDC + 142 weeks	NCIA, Mons Office	Provision	Service	1	-	-
6.2.3	Support an OpTEVal Observations Meeting and Produce Report	3.2.12	EDC + 203 weeks	NCIA, Mons Office	Provision	Service	1	-	-
<b>6.3</b>	<b>Build Batches</b>								
6.3.1	Provide a notice to the Purchaser for all remaining node shelters being at Full System Acceptance Testing (FSA) Readiness State	2.7.4	EDC + 203 weeks	NCIA, Mons Office	Certificate	Document	1	-	-
6.3.2	Provide a Pre-FSA ready report to the Purchaser for Batch No 1 PSA Readiness State		EDC + 203 weeks	NCIA, Mons Office	Certificate	Document	1	-	-
<b>6.4</b>	<b>Conduct an FSA</b>								
6.4.1	Facilitate and conduct an FSA to the satisfaction of the purchaser	2.7.7	EDC + 142 weeks				1	-	-

6.4.2	Facilitate and convene an FSA Observations Meeting and Produce Report for the purchasers approval	2.7.7	EDC + 142 weeks	NCIA, Mons Office	Meeting & 'PDF	Document	1	-	-
6.4.3	Deliver a finalised Configured Software Release Package with all Shelter Node Images for the purchasers approval	2.7.7	EDC + 142 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
6.4.4	Deliver for FSA the finalised Requirements Tracability Matrix (RTM) with the purchaser	1.6	EDC + 142 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
6.4.5	Deliver for FSA the finalised Verification & Validation Requirements Matrix (VVRM) with the purchaser	2.2.2	EDC + 142 weeks	NCIA, Mons Office	Provision	Service	1	-	-
6.4.6	Deliver all Finalised finalised System Design Documentation in support of FSA for the purchasers approval	2.7.7	EDC + 142 weeks	Oporto, Portugal	Provision	Document	1	-	-
6.4.7	Deliver all Finalised finalised User & Maintainer Documentation in support of FSA for the purchasers approval	2.7.7	EDC + 142 weeks	Oporto, Portugal	Provision	Document	1	-	-
6.4.8	Deliver all Finalised finalised Reference Information in support of FSA for the purchasers approval	2.7.7	EDC + 142 weeks	Oporto, Portugal	Provision	Document	1	-	-
6.4.9	Facilitate an FSA Observations Meeting and Produce Report for Purchasers approval	2.7.7	EDC + 203 weeks	Oporto, Portugal	MS Word / PDF		1	-	-
6.4.10	Certify FSA completed successfully to Purchaser's approval	2.7.7	EDC + 203 weeks	NCIA, Mons Office	MS Word / PDF		1	-	-
<b>TOTAL PRICE CLIN 6 (BASE-EVALUATED) Full Systems Acceptance (FSA)</b>									
<b>7</b>	<b>CLIN 7 - WP 7 Provide &amp; Ship Batch No 2 Production Units</b>								
7.1	Supply with full documentation the Batch No 2 Shelter Node Types, Non-CIS, Software and Ancillaries ready for FAT	2.7 & Table 2	EDC + 168 weeks	Contractor's Factory	Provision	Assets	17	-	-
7.2	Supply all renewable and perpetual licensing for all Batch No 2 CIS, with full permission sets that allow the End User to fully utilise the TDCIS provided capability	2.7.1	EDC + 168 weeks	Contractor's Factory	Provision	Assets	17	-	-
7.3	Manufacture, build, assemble and/or make ready and configure all Batch No 2 Modules and Systems in readiness for FAT	2.7.4 & Table 2	EDC + 155 weeks	System Build Facility, Portugal	Provision	Service	17	-	-
7.4	Conduct and Certify Batch No 2 Factory Acceptance Test (FAT); reporting progress to Purchaser	2.7.2	EDC + 157 weeks	System Build Facility, Portugal	Provision	Service	17	-	-
7.5	Provide 'As-Built' System Design Documentation that supports the Batch No 2 Delivery; hard copy and e-format	2.7.3	EDC + 165 weeks	System Build Facility, Portugal	Provision	Document	17	-	-
7.6	Provide 'As-Built' User, Operations & Maintainer Documentation that supports the Batch No 2 Delivery; hard copy and e-format	2.7.3	EDC + 165 weeks	System Build Facility, Portugal	Provision	Document	17	-	-

7.7	Provide 'As-Built' Reference Information and Engineering Drawings that supports the Batch No 2 Delivery; hard copy and e-format	2.7.3	EDC + 165 weeks	System Build Facility, Portugal	Provision	Document	17	-	-
7.8	Provide all Batch No 2 Assets with NATO Codification	2.7.4	EDC + 165 weeks	NCIA, Mons Office	Certificate	Document	17	-	-
7.9	Provide Batch No 2 Certificate Of Conformity to the Purchser	2.7.4	EDC + 165 weeks	NCIA, Mons Office	Certificate	Document	17	-	-
7.10	Deliver to the customer site, all Batch No 2 Node Types, Non-CIS, Software and Ancillaries; with a Batch No 2 MDL	2.7.4	EDC + 98 weeks	Oporto, Portugal	Provision	Service	17	-	-
<b>TOTAL PRICE CLIN 7 ( BASE-EVALUATED) Provide Production Units</b>									
<b>8</b>	<b>CLIN 8 - Project Management</b>								
8.1	Deliver the Project Management Plan (PMP) to meet Purchaser approval	3.2.2	EDC + 3 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
<b>8.2</b>	<b>Project Implementation Plan (PIP)</b>								
8.2.1	Deliver Project Implementation Plan (PIP) to meet Purchaser approval	3.2.1	EDC + 6 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
8.2.2	Deliver Documentation Plan (DP) to meet Purchaser approval	5.1	EDC + 6 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
8.2.3	Deliver Project Master Schedule (PMS) to meet Purchaser approval	3.2.3	EDC + 9 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
8.2.4	Deliver Project Work Breakdown Structure (WBS) to meet Purchaser approval	3.2.5	EDC + 9 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
8.2.5	Deliver Product Breakdown Structure (PBS) to meet Purchaser approval	3.2.4	EDC + 12 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
8.2.6	Deliver Risk Management Plan (RMP) to meet Purchaser approval	3.2.13	EDC + 12 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
8.2.7	Deliver Issue Management Plan (IMP) to meet Purchaser approval	3.2.14	EDC + 12 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
8.2.8	Deliver a Collaborative Working Environment with full Purchaser Administration Rights	3.5	EDC + 21 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
<b>8.3</b>	<b>Quality Management</b>								
8.3.1	Deliver Quality Assurance Plan (QMP) to meet Purchaser approval	7.2	EDC + 2 w	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
<b>8.4</b>	<b>Stakeholder Communication</b>								
8.4.1	Deliver Communication Plan (CP) to meet Purchaser approval	3.2.6	EDC + 21 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
8.4.2	Present Collaborative Working Environment for Purchaser Approval	3.6	EDC + 6 weeks	NCIA, Mons Office	Web Enabled	Service	1	-	-



					Portal				
<b>8.5</b>	<b>Integrated Product Support</b>								
<b>8.5.1</b>	<b>Deliver an Integrated Product Support Plan (IPSP)</b>								
8.5.1.1	IPSP Draft Version to meet Purchaser's approval	4.2	EDC + 2 w					-	-
8.5.1.2	IPSP Final Draft Version to meet Purchaser' Approval	4.2	PDR - 4w	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
8.5.1.3	IPSP Final Version to meet Purchaser's Approval	4.2	CDR + 4w	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
<b>8.5.2</b>	<b>Deliver a In Service Support Plan (ISSP)</b>								
8.5.2.1	ISSP Draft Version to meet Purchaser's approval	4.13	FSA - 6m	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
8.5.2.2	ISSP Final Version to meet Purchaser's Approval	4.13	FSA + 6m	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
<b>8.5.3</b>	<b>Deliver a Technical Publication Development Plan (TPDP)</b>								
8.5.3.1	TPDP Draft Version to meet Purchaser's approval	4.10	CDR – 4w	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
8.5.3.2	TPDP Final Version to meet Purchaser's Approval	4.10	CDR + 8w	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
<b>8.5.4</b>	<b>Deliver Training Plan (TP) (including TNA)</b>								
8.5.4.1	TP Draft Version to meet Purchaser's approval	4.11	CDR – 4w	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
8.5.4.2	TP Final Draft Version to meet Purchaser' Approval	4.11	CDR + 8w	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
8.5.4.3	TP Final Version to meet Purchaser's Approval	4.11	Training Start – 4w	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
<b>8.6</b>	<b>Verification and Validation</b>								
8.6.1	Deliver Test Verification & Validation Plan (TVVP) to meet Purchaser approval	3.2.9	EDC + 4 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
8.6.2	Deliver Defect Remediation Plan (DRP) to meet Purchaser approval	3.2.10	EDC + 21 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
8.6.3	Deliver Service Transition Plan (STP) to meet Purchaser approval	3.2.13	EDC + 21 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
8.6.4	Deliver Deficiency Reports (DR) to meet Purchaser approval	6.11	EDC + 203 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
8.6.5	Deliver a Requirements TraEDCbility Matrix (RTM) to meet Purchaser approval	2.1.4	EDC + 97 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
8.6.6	Deliver a Verification & Validation Reference Matrix (VVRM) to meet Purchaser approval	App C, Table 23	EDC + 97 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-



<b>8.7</b>	<b>Configuration Management</b>								
8.7.1	Deliver Configuration Management Plan (CMP) to meet Purchaser approval	6.2	EDC + 2 w	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
8.7.2	Deliver Project Progress Reports (PPR) to meet Purchaser approval	3.4	EDC + 203 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
8.7.3	Deliver Change Requests (CR) to meet Purchaser approval	App C, Table 23 & 6.6	EDC + 203 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
8.7.4	Deliver an Engineering Change Proposals (ECP) to meet Purchaser approval	App C, Table 23 & 6.6	EDC + 21 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
8.7.5	Deliver a Configuration Status Accounting (CSA) database to meet Purchaser approval	6.8	EDC + 97 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
8.7.6	Deliver Reports on Physical Configuration Audits (PCA) to meet Purchaser approval	6.9.1	EDC + 203 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
8.7.7	Deliver Reports on Functional Control Audits (FCA) to meet Purchaser approval	6.9.2	EDC + 203 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
8.7.8	Develop and Deliver a Configuration Management DataBase (CMDB) to meet Purchaser approval	6.1	EDC + 97 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
8.7.9	Deliver a Configuration Capture (CCAP) Plan to meet Purchaser approval	2.1.2	EDC + 3 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
8.7.10	Conduct Configuration Capture event at Customer site in Portugal	6.5	EDC + 5 weeks	Portugal	MS Word / PDF	Event	1	-	-
8.7.11	Deliver a Configuration Capture (CCAP) Report to meet Purchaser approval; Draft	2.1.2	EDC + 12 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
8.7.12	Deliver a Configuration Capture (CCAP) Report to meet Purchaser approval; Final	2.1.2	EDC + 14 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
<b>8.8</b>	<b>System Safety</b>								
8.8.1	Deliver the System Safety Programme Plan (SSPP) to meet Purchaser approval	4.15	EDC + 9 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
8.8.2	Deliver the System Safety Hazard Analysis Report (SSHAR) to meet Purchaser approval	4.15	EDC + 12 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
8.8.3	Deliver the Configuration Load Plan (CLP) to meet Purchaser approval	4.15	EDC + 12 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
<b>8.9</b>	<b>Conduct Project Meetings</b>								
8.9.1	Support Project Review Meetings (PRM) and Submit all artefacts and reports to meet Purchaser approval	3.3.2	EDC + 203 weeks	NCIA, Mons Office	MS Word / PDF	Event & Report	4	-	-
8.9.2	Support Project Progress Meetings (PPM) and Submit all artefacts and reports to meet Purchaser approval	3.3.3		NCIA, Mons / Portugal / Video	MS Word / PDF	Event & Report	17	-	-

				Conference					
8.9.3	Support Project Technical Workshops and Submit all artefacts and reports to meet Purchaser approval		EDC + 150 weeks	NCIA, Mons / Portugal / Video Conference	MS Word / PDF	Event & Report	17	-	-
8.9.4	Hold and Chair Adhoc Meetings for the Purchaser and Stakeholders, producing output as determined by the Purchaser	3.3.5	EDC + 210 weeks	NCIA, Mons / Portugal / Video Conference	MS Word / PDF	Event & Report	20	-	-
8.9.5	Support Project Joint Technical Reviews and Submit all artefacts and reports to meet Purchaser approval	3.3.6	EDC + 210 weeks	NCIA, Mons / Portugal / Video Conference	MS Word / PDF	Event & Report	16	-	-
8.9.6	Deliver Documentation to effectively support of Configuration Management Workshops to meet Purchaser approval		EDC + 33 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
<b>8.10</b>	<b>Project Closure</b>								
8.10.1	Provide Contractor Support to Project Closure	App C, Table 23, 8.11.1	EDC + 210 weeks	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
<b>TOTAL PRICE CLIN 8 (BASE-EVALUATED) Project Management</b>									-
<b>9</b>	<b>CLIN 9 - Integrated Product Support (IPS)</b>								
<b>9.1</b>	<b>Deliver Reliability Availability Maintainability Testability (RAMT) Case Report to meet Purchaser approval</b>								
9.1.1	RAMT Case Report Draft Version	4.3	SRR – 4w	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
9.1.2	RAMT Case Report Final Draft Version	4.3	PDR – 4w	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
9.1.3	RAMT Case Report Final Version	4.3	CDR – 4w	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
<b>9.2</b>	<b>Deliver Failure Mode Effects and Criticality Analysis (FMECA) to meet Purchaser approval</b>								
9.2.1	FMECA Draft Version	4.4	SRR – 4w	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
9.2.2	FMECA Final Draft Version	4.4	PDR – 4w	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
9.2.3	FMECA Final Version	4.4	CDR – 4w	NCIA, Mons Office	MS Word / PDF	Document	1	-	-

<b>9.3</b>	<b>Deliver Maintenance Task Analysis (MTA) [including Logistics Database] to meet Purchaser approval</b>								
9.3.1	MTA Draft Version	4.5	PDR – 4w	NCIA, Mons Office	S3000L- Format and MS Word / PDF	Document	1	-	-
9.3.2	MTA Final Draft Version	4.5	CDR – 4w	NCIA, Mons Office	S3000L- Format and MS Word / PDF	Document	1	-	-
9.3.3	MTA Final Version	4.5	FAAT + 4w	NCIA, Mons Office	S3000L- Format and MS Word / PDF	Document	1	-	-
<b>9.4</b>	<b>Deliver Level of Repair Analysis (LORA) [including Repair Price List (RPL)] to meet Purchaser approval</b>								
9.4.1	LORA Draft Version	4.6	PDR – 4w	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
9.4.2	LORA Final Draft Version	4.6	CDR – 4w	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
9.4.3	LORA Final Version	4.6	FAAT + 4w	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
<b>9.5</b>	<b>Deliver an Obsolescence Report to meet Purchaser approval</b>								
9.5.1	Obsolescence Report Draft Version	4.7	CDR – 4w	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
9.5.2	Obsolescence Report Final Draft Version	4.7	FAAT + 4w	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
9.5.3	Quarterly Obsolescence Report Final Version	4.7	First delivery at PSA + 3m	NCIA, Mons Office	MS Word / PDF	Document	16	-	-
<b>9.6</b>	<b>Deliver Initial Provisioning List (IPL) [including RSPL, RCIL, RTTL, BOM, MDS, SWDL] to meet Purchaser approval</b>								
9.6.1	IPL Draft Version	4.8	CDR – 4w	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
9.6.2	IPL Final Version	4.8	FAAT + 4w	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
<b>9.7</b>	<b>Deliver Packaging, Handling, Storage and Transportation (PHST) Report to meet Purchaser approval</b>								

9.7.1	PHST Draft Version	4.9	CDR – 4w	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
9.7.2	PHST Final Version	4.9	FAAT + 4w	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
<b>9.8</b>	<b>Deliver a Warranty Report to meet Purchaser approval</b>								
9.8.1	Warranty Report Draft Version	4.12	FSA - 6m	NCIA, Mons Office	MS Word / PDF	Document	1	-	-
9.8.2	Quarterly Obsolescence Report Final Version	4.12	1st delivery at FSA + 3m	NCIA, Mons Office	MS Word / PDF	Document	16	-	-
<b>9.9</b>	<b>User and Maintenance Manuals to meet Purchaser approval</b>								
<b>9.9.1</b>	<b>Deliver User Manuals (UM)</b>								
9.9.1.1	UM Draft version	4.10	CDR – 4w	NCIA, Mons Office	S1000D- Format and Hard Copy	Document	1	-	-
9.9.1.2	UM Final Version	4.10	FAAT + 4w	NCIA, Mons Office	S1000D- Format and Hard Copy	Document	1	-	-
<b>9.9.2</b>	<b>Deliver Maintenance Manuals (MM)</b>								
9.9.2.1	MM Draft version	4.10	CDR – 4w	NCIA, Mons Office	S1000D- Format and Hard Copy	Document	1	-	-
9.9.2.2	MM Final Version	4.10	FAAT + 4w	NCIA, Mons Office	S1000D- Format and Hard Copy	Document	1	-	-
9.10	Provision and Deliver an TDCIS Initial Spare Parts & Consumables Package	App C, Table 23, 9.4.1	EDC + 90 weeks	NCIA, Mons Office	Provision	Service	1	-	-
9.11	Deliver As-Built Installation Drawings to meet Purchaser approval	2.5.3	EDC + 146 weeks	NCIA, Mons Office	E-Format and Hard Copy	Document	1	-	-
9.12	Deliver Engineering Drawings to meet Purchaser approval	4.10.6	EDC + 146 weeks	NCIA, Mons Office	E-Format and Hard Copy	Document	1	-	-
9.13	Deliver Original Equipment Manufacturers (OEM) Manuals to meet Purchaser approval	4.10.2.k	EDC + 146 weeks	NCIA, Mons Office	E-Format and Hard	Document	1	-	-

					Copy				
<b>9.14</b>	<b>Warranties</b>								
9.14.1	Implement a 2-Year Warranty on Batch No 1, First articles for 2 years following FSA	4.2.2	EDC + 310 weeks	NCIA, Mons Office	In Service Support (warranty)	Years	2		-
9.14.2	Implement a 2-Year Warranty on Batch No 2, First articles for 2 years following FSA	4.2.2	EDC + 310 weeks	NCIA, Mons Office	In Service Support (warranty)	Years	2		-
9.14.3	Deliver Warranty Reports, at 6-month intervals on all Batch No 1, No 2 Equipment.	App C, Table 23, 9.5.4		NCIA, Mons Office	Provision	Service	4		-
<b>TOTAL PRICE CLIN 9 (BASE-EVALUATED) Integrated Product Support (IPS) Products</b>									-
<b>Total Firm Fixed Price- Base Contract</b>									-

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Book II – Part II Contract Special Provisions



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

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**Tactical Deployable Communications and Information  
Systems (TDCIS) for the Portuguese Army**

**RFQ-CO-115363-PRT-TDCIS**

**BOOK II – PART II**

**CONTRACT SPECIAL PROVISIONS**

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**1 ALTERATIONS, MODIFICATIONS AND DELETIONS OF THE BOA/  
GENERAL AND SPECIAL PROVISIONS**

- 1.1 Clause 7 “Participating Countries” supplements Clause 9 “Participating Countries” of the NCI Agency Contract General Provisions.
- 1.2 Clause 9 “Inspection and Acceptance” augments Clause 21 “Inspection and Acceptance” of the NCIA Agency Contract General Provisions.
- 1.3 Clause 11 “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.
- 1.4 Clause 12 “Invoices and Payment” augments Clause 25 “Invoices and Payment” of the NCI Agency Contract General Provisions.
- 1.5 Clause 13 “Liquidated Damages” replaces Clause 38 “Liquidated Damages” of the NCI Agency Contract General Provisions.
- 1.6 Clause 15 “Security” augments Clause 11 “Security” of the NCI Agency Contract General Provisions.
- 1.7 Clause 22 “Warranty” augments Clause 27 “Warranty of Work (Exclusive of Software)” and Clause 30 “Software Warranty” of the NCI Agency Contract General Provisions.
- 1.8 Clause 29 “Intellectual Property” augments Clause 30 “Intellectual Property” of the NCI Agency Contract General Provisions.
- 1.9 Clause 30 “Intellectual Property Right, Indemnity and Royalties” augments Clause 29 “Patent and Copyright Indemnity” of the NCI Agency General Provisions.
- 1.9. Clause 34 “Permits and Responsibilities” supplements Clause 5 “Language” and Clause 6 “Authorisation to Perform/Conformance to National Laws and Regulations”.

**2 ORDER OF PRECEDENCE**

- 2.1 In the event of any inconsistency in this Contract, the inconsistency shall be resolved by giving precedence in the following order:
  - a. Signature sheet
  - b. Part I - The Schedule of Supplies and Services (SSS)
  - c. Part II - The Contract Special Provisions (SP)

- d. Part III – The Terms of the governing Basic Ordering Agreement/General Provisions as specified in Block 11 of the Signature Sheet.
- e. Part IV – The Statement of Work (SOW) and SOW Annexes

### 3 TYPE OF CONTRACT

- 3.1 This is a Firm Fixed Price Contract established for the supplies and services defined in Part I - Schedule of Supplies and Services and Part IV – Statement of Work.
- 3.2 The Purchaser assumes no liability for costs incurred by the Contractor in excess of the stated Firm Fixed Price except as provided under other provisions of this Contract.
- 3.3 The Total Contract price is inclusive of all expenses related to the performance of the present contract.

### 4 SCOPE OF WORK

- 4.1 TDCIS will comprise a range of Shelters and Trailers based Node types and a NATO Secret (NS) Kit configured for a specific Mission deployment.
- 4.2 The Shelters are mounted on all-terrain vehicles that can be located in the operational scenario as per the mission requirements.
- 4.3 Missions may use both Shelters and Trailers, some will use two Shelters, others a single Shelter.
- 4.4 The trailers can be used independently as a Communication rebroadcast facility. In addition, to the Shelters there are also specialist Trailers, these too are Mission specific but their usage and variability is less complex than the Shelter.
- 4.5 The TDCIS **does not include** a dedicated Test and Reference Environment.
- 4.6 The TDCIS **does not include** a dedicated Training Environment.
- 4.7 The project will be executed in six phases, spanning from the Effective Date of Contract (EDC) to two (2) years following the declaration of FSA.
- 4.8 As a guide, the Purchaser has developed a Plan On A Page (POAP) that shall be used by the Contractor to understand the requirement.
- 4.9 The POAP has 6 Phases with supporting enablers that comprise the following:
  - 4.9.1 **Phase 1 – System Design.** This phase firmly sets the scene for the whole delivery, it shall conclude with a Preliminary Design Review (PDR) that sets expectation levels on the delivery lifecycle. This is the strategy phase with some of the CDRLs delivered as 'Presentational' with some information back up.

- 4.9.2 **Phase 2 – System Development.** This phase develops the PDR baseline further and places a number of key blueprint designs. It also offers the Contractor an opportunity to mature their individual strategies into firm baselined plans. This phase concludes with a Key Milestone CDR.
- 4.9.3 **Phase 3 – Batch 1 Build.** This phase focusses on the manufacture of the Batch 1 nodes. The Phase consists of 5-tranches of build and concludes with a full batch 1 Factory Acceptance Systems Test (FAST).
- 4.9.4 **Phase 4 – Deliver Training, Conduct UAT(E ) and PSA.** The Contractor shall be responsible for the execution of this entire phase, including the conducting of Training and UAT(E) at the Customer’s establishment. UAT(E) shall comprise of System and Interoperability Testing when the system’s integration and compliance with NATO Federated Mission Network, Spiral 3 , is to be evidenced.
- 4.9.5 **Phase 5 – Support OpTEVal, and Build Batches 2 & 3 (Batch 3 is an Option).** Following successful completion of the PSA, the OpTEVal exercise plus production of Batches 2 & 3 are to be carried out concurrently. The Contractor shall provide consultancy type support to the TDCIS acceptance activity performed by the Customer during OpTEVal. Batches 2 and 3 shall be manufactured with a Factory Acceptance Test (FAT) carried out before delivery to the Customer Site.
- 4.9.6 **Phase 6 – Achieve FSA.** This Phase finalises the Project delivery. The phase will conclude when the Contractor and the Purchaser conclude their FSA Report. Contractor Warranty shall commence on successful completion of the FSA, and shall last for a period of 2 consecutive years.
- 4.10 The TDCIS design shall cover the full scope of the TDCIS systems.
- 4.11 This design documentation shall separately identify the design for the operational (production) and training systems.
- 4.12 The scope of the design shall encompass all the components needed to achieve the capability, including:
- 4.13 CIS Hardware;
- 4.14 Software and licensing;
- 4.15 Tooling to manage and support the TDCIS;
- 4.16 Non-CIS hardware (e.g. transit cases, tents, etc.).
- 4.17 The design shall strictly follow the structure in which requirements are formulated in Book II Part IV, Annex A (SRS).

- 4.18 The implementation of the TDCIS consists of the assembly, connection, integration and configuration of Commercial of The Shelf (COTS) components, into bespoke systems that are fit for purpose of meeting the Purchaser's requirements and used in support of National and NATO expeditionary operations.
- 4.19 This Contract encompasses procurement, design, manufacturing, delivery of equipment, installation, integration, testing, acceptance and IPS support as defined in the Statement of Work (SOW) of the Contract and Annexes.
- 4.20 The Contractor shall provide the supplies and services indicated in the Schedule of Supplies and Services (SSS) and further described in the SOW and Annexes, and perform the work described in the SOW and Annexes for the implementation of the above stated project.
- 4.21 Portugal is the Host Nation for this project and has the overall financial authority. The NCI Agency has been authorised to act as a Procurement Agent on behalf of the Host Nation and is vested with the acquisition authority.
- 4.22 The definition of "Purchaser" for the purposes of this Contract is therefore modified from the definition of Contract General Provisions Clause 2 "Definitions of Terms and Acronyms" to "NATO C&I Organisation, as represented by the General Manager, NCI Agency, acting on behalf of the Host Nation Portugal. The Purchaser is the legal entity who awards and administers the Contract and stands as one of the Contracting Parties. The definition of Purchaser encompasses any legal successor to the NATO C&I Organisation and its designated representative, as may be agreed by the NATO member Nations."

## **5 PLACE AND TERMS OF DELIVERY**

- 5.1 Deliverables under this Contract shall be delivered DDP (Delivery Duty Paid) in accordance with the International Chamber of Commerce INCOTERMS 2020 to the destination(s) and at such times as set forth in the Schedule of Supplies and Services.

## **6 COMPREHENSION OF CONTRACT AND SPECIFICATIONS**

- 6.1 The Contractor warrants that he has read, understood and agreed to each and all terms, clauses, specifications and conditions specified in the Contract and that this signature of the Contract is an acceptance, without reservations, of the said Contract terms within their normal and common meaning.
- 6.2 The specifications 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

work to be delivered will meet or exceed the performance requirements of the said specifications.

- 6.3 The Contractor hereby acknowledges that he has no right to assert against the Purchaser, its officers, agents or employees, any claims or demands with respect to the aforesaid specifications as are in effect on the date of award of this Contract.
- 6.4 Based upon impossibility of performance, defective, inaccurate, impracticable, insufficient or invalid specifications, implied warranties of suitability of such specifications, or
- 6.5 Otherwise derived from the aforesaid specifications, and hereby waives any claims or demands so based or derived as might otherwise arise.
- 6.6 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 firm 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.

## **7 PARTICIPATING COUNTRIES**

- 7.1 This Clause supplements Clause 9 (Participating Countries) of the Contract General Provisions.
- 7.2 Participating countries are as follows NATO nations in ALBANIA, BELGIUM, BULGARIA, CANADA, CROATIA, THE CZECH REPUBLIC, DENMARK, ESTONIA, FRANCE, GERMANY, GREECE, HUNGARY, ICELAND, ITALY, LATVIA, LITHUANIA, LUXEMBOURG, MONTENEGRO, THE NETHERLANDS, NORTH MACEDONIA, NORWAY, POLAND, PORTUGAL, ROMANIA, SLOVAKIA, SLOVENIA, SPAIN, TURKEY, THE UNITED KINGDOM and THE UNITED STATES.

## **8 TRANSPORTATION OF EQUIPMENT**

- 8.1 All supplies covered under this Contract, including Purchaser Furnished Equipment (PFE), once handed over to the Contractor, and items shipped under warranty for repair or otherwise, shall be transported to and from all destinations at the responsibility of the Contractor. The Purchaser shall not be liable for any storage,

damage, accessorial or any other charges involved in such transporting of supplies.

## **9 INSPECTION AND ACCEPTANCE**

- 9.1 This Clause augments Clause 21 “Inspection and Acceptance” of the Contract General Provisions.
- 9.2 The supplies and services to be provided by the Contractor’s personnel under this Contract shall conform to the highest professional and industry standards and practices. Inspection of the services provided will be made by the Purchaser’s Technical representatives or another authorised designee in accordance with the specifications in Part IV - Statement of Work. Services performed by the Contractor which do not conform to the highest professional and industry standards may result in the Purchaser requesting that such work be performed again at no increase in the price of the contract. Repeated instances of work performed which fails to meet the standards and practices may result in termination of the Contract for Default.
- 9.3 The Purchaser and Host Nation reserves the right to charge to the Contractor any additional cost incurred by the Purchaser for 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.
- 9.4 Purchaser review and acceptance procedures specific to contract documentation to be submitted by the Contractor as described in Part IV, Statement of Work.
- 9.5 Under the terms of this Contract, Acceptance will be made in three (3) steps:
- 9.4.1. Step 1: System Design, Development and Factory Acceptance Test (FAT) phase;
- 9.4.2. Step 2: System Acceptance Test (SAT) Report phase;
- 9.4.3. Step 3: Final System Acceptance (FSA) phase at which time the Purchaser will take Title and Warranty will commence.

## **10 CONTRACTOR’S RESPONSIBILITY**

- 10.1 The Contractor shall monitor changes and/or upgrades to commercial off the shelf (COTS) software or hardware to be utilized under subject Contract.
- 10.2 For COTS items which are or could be impacted by obsolescence issues, as changes in technology occur, the Contractor will propose substitution of new products/items for inclusion in this Contract. The

proposed items should provide at least equivalent performance and/or lower life-cycle support costs, or enhanced performance without a price or cost increase.

- 10.3 The Contractor will provide evidence with respect to price and performance of the equipment being proposed as well as data proving an improvement in performance and/or a reduction in price and/or life-cycle support costs. If necessary for evaluation by the Purchaser, the Contractor shall provide a demonstration of the proposed items. Should the Purchaser decide that the proposed item(s) should be included in the Contract, an equitable price adjustment will be negotiated and the proposed item(s) shall be added to the Contract by bilateral modification under the authority of this Article.
- 10.4 The Contractor shall notify the Purchaser of any proposed changes in the commercial off the shelf software or hardware to be utilized. Such notification shall provide an assessment of the changes and the impact to any other items to be delivered under this Contract.

## **11 PRICING OF CHANGES, MODIFICATIONS, FOLLOW-ON CONTRACTS AND CLAIMS**

- 11.1 This clause augments Clause 19 "Pricing of Changes, Amendments and Claims" of the NCI Agency Contract General Provisions.
- 11.2 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.
- 11.3 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 1 to the Contract General Provisions.
- 11.4 Except otherwise provided for in this Contract, prices quoted for the above-mentioned changes, modifications, etc. shall have a minimum



validity period of twelve (12) months from the date of purchaser acceptance of proposal

**12 INVOICES AND PAYMENTS**

- 12.1 This Clause augments Clause 25 of the Contract General Provisions.
- 12.2 Following Purchaser acceptance, in writing, payment for supplies and services furnished shall be made in the currency specified for the relevant portion of the Contract.
- 12.3 The term of the Contract may not be exceeded without prior approval of the Purchaser. In no case will the Purchaser make payment above the total of the corresponding CLINs.
- 12.4 No payment will be made if CLIN items agreed for delivery before milestones are not complete as described in bidding sheets, SSS and SoW.
- 12.5 No payment shall be made with respect to undelivered supplies; works not performed, services not rendered and/or incorrectly submitted invoices.
- 12.6 No payment will be made for additional items delivered that are not specified in the contractual document.
- 12.7 The invoice amount shall be exclusive of VAT and exclusive of all Taxes and Duties as per Clause 26 (Taxes and Duties) of the Contract General Provisions.
- 12.8 CLINs will be paid as below based on Purchaser milestone approval in writing.
- 12.9 The Contractor shall be entitled to submit invoices as follows:

Mile-stone #	Description	CLIN	Percentage of contract	Delivery NLT (Not Later Than)
1	Project Implementation Plan (PIP)	Purchaser Acceptance/Approval of CLIN 3.2.2.	5%	EDC + 6
2	Approval of Preliminary Design Review (PDR)	Purchaser Acceptance/Approval of CLIN 1.4.1.(PDR)	5%	EDC + 12
3	Delivery/Acceptance of Critical Design Review (CDR)	Purchaser Acceptance/ Approval of CLIN 1.4.2 (CDR)	5%	EDC + 21

4	Purchaser Acceptance of First Article Testing (FAAT)	Purchaser Acceptance/Approval CLIN 2.2.5, Conduct First Article Acceptance Testing (FAAT) WP2	15%	EDC + 82
5	Delivery and Purchaser Acceptance of Batch 1 Equipment	Purchaser Acceptance/Approval CLIN 5.1.2 Ship Productions Units (Batch 1)	15%	EDC + 90
6	Delivery and Purchaser Acceptance of Batch 2 Equipment	Purchaser Acceptance/Approval CLIN 7.10 Ship Productions Units (Batch 2)	15%	EDC + 98
7	Provisional System Acceptance	Purchaser Acceptance/Approval CLIN 5.2.6 Support Provisional System Acceptance	20%	EDC + 106
8	Full System Acceptance	Purchaser Acceptance/Approval CLIN 6.4.10	15%	EDC + 206
9	End of Warranty	Contractor fulfilment of Warranty through to FSA + 24 Months  Batch #1 CLIN 9.5.1  Batch #2 CLIN 9.5.2	5%	EDC + 310

- 12.10 Evidence of the acceptance by the Purchaser shall be attached to all invoices.
- 12.11 The Purchaser is released from paying any interest resulting from any reason whatsoever.
- 12.12 The Contractor shall render all invoices in a manner, which shall provide a clear reference to the Contract. Invoices in respect of

any service and/or deliverable shall be prepared and submitted as specified hereafter and shall contain:

- 12.12.1 Contract number CO-115363-PRT-TDCIS
- 12.12.2 Purchase Order number (TBD at Contract Award)
- 12.12.3 Contract Amendment number (if any)
- 12.12.4 Contract Line Item(s) (CLIN) as they are defined in the priced Schedule of Supplies and Services.
- 12.12.5 Bank Account details for International wire transfers
- 12.13 The invoice shall contain the following certificate:

“I certify that the above invoice is true and correct, that the delivery of the above described items has been duly effected and/or that the above mentioned services have been rendered and the payment therefore has not been received”. The certificate shall be signed by a duly authorised company official on the designated original.

- 12.14 Invoices referencing “CO-115363-PRT-TDCIS/ PO (TBD at Contract Award)” shall be submitted in electronic format to:  
[AccountsPayable@ncia.nato.int](mailto:AccountsPayable@ncia.nato.int)

An Electronic copy shall be sent to the Contracting Officer, at the email address specified in the clause “Contract Administration”.

- 12.15 NCI Agency will make payment within 45 days of receipt by NCI Agency of a properly prepared and documented invoice.

### **13 LIQUIDATED DAMAGES**

- 13.1 This Clause replaces Clause 38 (Liquidated Damages) of the Contract General Provisions.
- 13.2 If the Contractor fails to:
  - 13.2.1 meet the delivery schedule of the Deliverables or any specified major performance milestones or required performance dates specified in the Schedule of Supplies and Services to this Contract, or any extension thereof, or
  - 13.2.2 deliver and obtain acceptance of the Deliverables or to acceptably perform the services as specified in the Schedule of Supplies and Services to this Contract, 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 per cent) per day of the associated payment set forth in the schedule of payments provided in Clause 11 of the Contract Special Provisions.

- 13.3 In addition to the liquidated damages, the Purchaser shall have the possibility of terminating this Contract in whole or in part, as provided in Clause 39 (Termination for Default) of the Contract General Provisions. In the event of such termination, the Contractor shall be liable to pay the excess costs provided in Clause 39.5 (Termination for Default) of the Contract General Provisions.
- 13.4 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 Clause 39.6 (Termination for Default) of the Contract General Provisions. In such event, subject to the provisions of Clause 41 (Disputes) of the Contract General Provisions, 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.
- 13.5 Liquidated damages shall be payable to the Purchaser from the first day of delinquency and shall accrue at the rate specified in Clause 12.2.2 above to 15% of the value of each line item individually and an aggregate sum of all delinquent items not to exceed 15% of the value of the total Contract. These liquidated damages shall accrue automatically and without any further notice being required.
- 13.6 The amount of Liquidated Damages due by the Contractor shall be recovered by the Purchaser in the following order of priority:
- a) By deducting such damages from the amounts due to the Contractor against the Contractor's invoices.
  - b) By proceeding against any surety or deducting from the Performance Guarantee if any
  - c) By reclaiming such damages through appropriate legal remedies.

- 13.7 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.

#### **14 SUPPLEMENTAL AGREEMENT(S), DOCUMENTS AND PERMISSIONS**

- 14.1 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.
- 14.2 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 Parties 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.

#### **15 SECURITY**

- 15.1 This Clause augments Clause 11 (Security) of the Contract General Provisions.
- 15.2 The security classification of this Contract is NATO UNCLASSIFIED.
- 15.3 In the performance of all works under this Contract it shall be the Contractor's responsibility to ascertain and comply with all applicable NATO and National security regulations as implemented by the Purchaser and by the local authorities.
- 15.4 Contractor and /or Subcontractor personnel employed under this Contract that will require access to locations, such as sites and headquarters, where classified material and information up to and including "NATO SECRET" are handled shall be required to have a NATO security clearance up to this level. Contractor personnel who need System Administrator or Operator privileges when working on

NATO SECRET systems shall be required to hold NATO CTS (Cosmic Top Secret) clearances.

- 15.5 All NATO CLASSIFIED material entrusted to the Contractor shall be handled and safeguarded in accordance with applicable security regulations.
- 15.6 The Contractor will be required to handle and store classified material to the level of "NATO SECRET".
- 15.7 It shall be the Contractor's responsibility to obtain the appropriate personnel and facility clearances to the levels stated in the preceding paragraphs and to have such clearances confirmed to the Purchaser by the relevant National security authority for the duration of the Contract in its entirety.
- 15.8 Failure to obtain or maintain the required level of security for Contractor personnel and facilities for the period of performance of this Contract shall not be grounds for any delay in the scheduled performance of this Contract and may be grounds for termination under Clause 39 (Termination for Default) of the Contract General Provisions.
- 15.9 The Contractor shall note that there are restrictions regarding the carriage and use of electronic device (e.g. laptops) in Purchaser secured locations. The Contractor shall be responsible for satisfying and obtaining from the appropriate site authorities the necessary clearance to bring any such equipment into the facility.
- 15.10 At the end of the Contract, the Contractor shall deliver all the documentation and information collected and generated in support of this Contract to the Purchaser. This includes a certificate that no copies are retained at the Contractor's facilities. Additionally, any equipment that had been connected to a classified network during this Contract shall be returned to the Purchaser (i.e. laptops, USB-keys, etc.).
- 15.11 The Statement of Work defines the level of security of information exchanged and used for performance of the Contract.
- 15.12 In particular, the Contractor undertakes to:
  - 15.12.1 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;
  - 15.12.2 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;

- 15.12.3 Abstain from copying by any means, without the authorization of the Purchaser, the national security authority or designated security agency, any classified documents, plans, photographs or other classified material entrusted to him;
- 15.12.4 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;
- 15.12.5 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;
- 15.12.6 Deny access to NATO classified information to any person other than those persons authorized to have such access by the national security authority or designated security agency;
- 15.12.7 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;
- 15.12.8 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;
- 15.12.9 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;
- 15.12.10 Apply to the Purchaser for approval before Sub-contracting any part of the work, if the Sub- contract would involve that the Subcontractor 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;

- 15.12.11 Undertake not to utilize, other than for the specific purpose of the Contract, without the prior written permission of the Purchaser or his authorized 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 authorized with the approval of the Purchaser. Such NATO classified information will be returned at such time as the Purchaser or his authorized representative may direct;
- 15.12.12 Classify any produced document with the highest classification of the NATO classified information disclosed in that document.
- 15.13 The Contractor’s Team Members shall possess a valid passport or ID Card and is required to maintaining its validity for the duration of the contract.

**16 KEY PERSONNEL**

- 16.1 The designated Contractor personnel fulfilling the roles as described in Statement of Work are considered Key Personnel for successful Contract performance and are subject to the provisions of this Clause as set forth in the following paragraphs.
- 16.2 The following individuals are identified as Key Personnel under this Contract:

Role	Name
Project Manager	To be completed based on proposal
Technical Lead	To be completed based on proposal
Test Director	To be completed based on proposal
CIS Security Manager	To be completed based on proposal
IPS Manager	To be completed based on proposal
Training Manager	To be completed based on proposal
Configuration Manager	To be completed based on proposal
Quality Manager	To be completed based on proposal

- 16.3 Under the terms of this Clause, Key Personnel may not be voluntarily diverted by the Contractor to perform work outside the Contract unless approved by the Purchaser. In cases where the Contractor has no control over the individual’s non-availability (e.g. resignation,



sickness, incapacity, etc.), the Contractor shall notify the Purchaser immediately of a change of Key Personnel and offer a substitute with equivalent qualifications at no additional costs to the Purchaser within 21 days of the date of knowledge of the prospective vacancy.

- 16.4 The Contractor shall take all reasonable steps to avoid changes to Key Personnel assigned to this project except where changes are unavoidable or are of a temporary nature. Any replacement personnel shall be of a similar grade, standard and experience as the individual to be substituted and must meet the minimum qualifications and required skills cited in the attached Statement of Work.
- 16.5 In the event of a substitution of any Key Personnel listed above and prior to commencement of performance, the Contractor shall provide a CV for the personnel proposed. The CV shall clearly stipulate full details of professional and educational background, and evidence that the personnel is qualified in pertinent Contract related areas of the SOW.
- 16.6 The Purchaser reserves the right to interview any Contractor personnel proposed in substitution of previously employed Contractor Key Personnel to verify their language skills, experience and qualifications, and to assess technical compliance with the requirements set forth in the SOW.
- 16.7 The interview, if required, may be conducted as a telephone interview, or may be carried out at the Purchaser's premises in Brussels, Belgium.
- 16.8 If, as a result of the evaluation of the CV and/or interview the Purchaser judges that the proposed replacement Key Personnel does not meet the required skills levels, he shall have the right to request the Contractor to offer another qualified individual in lieu thereof.
- 16.9 All costs to the Contractor associated with the interview(s) shall be borne by the Contractor, independently from the outcome of the Purchaser's evaluation.
- 16.10 The Purchaser Contracting Authority will confirm any consent given to a substitution in writing and only such written consent shall be deemed as valid evidence of Purchaser consent. Each of the replacement personnel will also be required to sign the Non-Disclosure Declaration at Annex A hereto prior to commencement of work.
- 16.11 Furthermore, even after acceptance of Contractor personnel on the basis of his/her CV and/or interview, the Purchaser reserves the right to reject Contractor personnel, if the individual is not meeting the required level of competence. The Purchaser will inform the

Contractor, in writing, in cases where such a decision is taken and the Contractor shall propose and make other personnel available within ten working days after the written notification. The Purchaser shall have no obligation to justify the grounds of its decision and the Purchaser's acceptance of Contractor 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.

- 16.12 The Purchaser may, for just cause, require the Contractor to remove his employee. Notice for removal will be given to the Contractor by the Purchaser in writing and will state the cause justifying the removal. The notice will either demand substitution for the individual involved and/or contain a notice of default and the remedies to be sought by the Purchaser.
- 16.13 In those cases where, in the judgement of the Purchaser, the inability of the Contractor to provide a suitable replacement in accordance with the terms of this Clause may potentially endanger the progress under the Contract, the Purchaser shall have the right to terminate the Contract as provided under Clause 39 (Termination for Default) of the Contract General Provisions.

## **17 INDEPENDENT CONTRACTOR**

- 17.1 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.
- 17.2 The Purchaser shall not be responsible for securing work permits, lodging, leases nor tax declarations, driving permits, etc., with national or local authorities. Contractors personnel employed under this Contract are not eligible for any diplomatic privileges or for NATO employee benefits.

## **18 NON DISCLOSURE AGREEMENT**

- 18.1 All Contractor and Subcontractor personnel working at any NATO Organisation / Commands premises or having access to NATO classified / commercial-in-confidence information must certify and sign the Declaration attached hereto at Annex A and provide it to the NCI

Agency Contracting Officer prior to the commencement of any performance under this Contract.

## **19 CARE AND DILIGENCE OF PROPERTY**

- 19.1 The Contractor shall use reasonable care to avoid damaging buildings, walls, equipment, and vegetation (such as trees, shrub and grass) on the work site.
- 19.2 If the Contractor damages any such buildings, walls, equipment or vegetation on the work site, he shall fix or replace the damage as directed by the Purchaser and at no expense 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.
- 19.3 The Purchaser will exercise due care and diligence for the Contractor's furnished equipment and materials on site. 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.
- 19.4 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.

## **20 RESPONSIBILITY OF THE CONTRACTOR TO INFORM EMPLOYEES OF WORK ENVIRONMENT**

- 20.1 The Contractor shall inform his employees under this Contract of the terms of the Contract and the conditions of the working environment.
- 20.2 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.

## **21 SOFTWARE**

- 21.1 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)".

- 21.2 Where the term Purchaser Furnished Equipment (PFE) is used it should be interpreted as Purchaser Furnished Property as defined in the Contract General Provisions.

## **22 WARRANTY**

- 22.1 This Clause augments Clause 27 "Warranty of Work (Exclusive of Software)" and Clause 30 "Software Warranty" of the NCI Agency Contract Special Provisions.
- 22.2 The Contractor shall provide warranty on all material provided under this Contract and in accordance with Book II, Part IV of the Statement of Work for a period of two (2) years.
- 22.2. Notwithstanding inspection and acceptance by the Purchaser or its appointed agents of supplies furnished under the Contract or any provision of this Contract concerning the conclusiveness thereof, the Contractor warrants for the total duration of the above referred period and covering all items of hardware and software, that:
- a) all deliverables furnished under this Contract shall be free from defect and will conform with the specifications and all other requirements of this Contract; and,
  - b) the system will, under normal conditions, perform without errors which make it unusable; and
  - c) the preservation, packaging, packing and marking and the preparation for and method of, shipment of such supplies will conform to the requirements of this Contract.
- 22.3. During the Warranty period, the Contractor shall perform in-depth analysis of failures of equipment and components and parts thereof, and functional performance failures to due sub-system or equipment group malfunctions. Such failures shall not be limited to hardware, but shall include failures due to application or embedded software.
- 22.4. Fault analysis results shall be provided to the Host Nation Portugal representative in writing within seven calendar days after its discovery, with the diagnosed causes reported along with recommendations for corrective actions, as appropriate. The resolution of defects remains the Contractors responsibility within the Warranty. The Contractor shall resolve all defects within 7 calendar days of their first being reported for those items that need not be returned to the Contractor's facility for service or repair. Items needing service or repair at the Contractor's facility shall be repaired/replaced and dispatched back to the Purchaser within 15 calendar days of their arrival at the Contractor's facility.

- 22.5. Transportation and handling charges for items returned under warranty claim to the Contractor will be the responsibility of the Contractor, as well as responsibility for such supplies, i.e. damage and loss that may occur during transportation under Warranty.
- 22.6. In the event of the Contractor's failure to repair or replace failed equipment within the timeframes expressed in this Article, the Purchaser will have the right, at its discretion, and having given the Contractor due notice, to:
- a) remedy, or have remedied, the defective or non-conforming supplies, in both cases at the Contractor's expenses;
  - b) equitably reduce the Contract price; and/or
  - c) terminate for default that portion of the Contract relating to the defective work.
- 22.7. Repeated failure of the same equipment, component or part, as well as failures due to software malfunctions may be considered by the Host Nation Portugal to be evidence of latent defect in the subject equipment (and or its associated software). In such a case the HN Portugal may require the Contractor to redesign such elements of the system as may be necessary in order to correct the repeated failure, or to substitute the failed element with a more reliable version or functional equivalent thereof. Such redesign and/or substitution shall be tested, and if found appropriate and applied.
- 22.9 For this purpose the Contractor shall provide exact warranty conditions by type of equipment and detailed handling instructions, including information of points of contact to be contacted in case of a warranty claim.
- 22.8. Such extension of the Warranty period will not apply in cases where the Contractor can convincingly demonstrate that the critical failure was due to HN Portugal negligence or a wilful act on the part of HN Portugal personnel.
- 22.9. Corrective action required of the Contractor under the Warranty also applies to errors or omissions in any delivered documentation which could not have reasonably been discovered prior to the Final System Acceptance under this Contract. Errors or omissions in delivered documentation shall not be considered a basis for extension of the Warranty as set forth in paragraphs above, except as can be demonstrated that such error or omission was the cause of a critical system failure.

### **23 COTS PRODUCT REPLACEMENT**

- 23.1 If any COTS products specified in the Contract are upgraded or discontinued by their original providers for commercial or technological reasons, the Contractor shall propose their substitution by the new versions that are intended as market

replacement of the original products. The proposed items shall provide an equivalent or enhanced performance without a price or life-cycle support cost increase.

- 23.2 The Contractor shall provide price and performance data to support an improvement in performance and/or a reduction in price and/or life-cycle support costs. If necessary for evaluation by the Purchaser, the Contractor shall provide a demonstration of the proposed items. Should the Purchaser decide that the proposed item(s) should be included in the Contract, an equitable price adjustment will be negotiated and the proposed item(s) shall be added to the Contract by bilateral modification under the authority of this Article.
- 23.3 All COTS furnished by the Contractor under this Contract shall be current production and upgraded to the most current versions at Provisional Site Acceptance (PSA).

## **24 OPTIONS**

- 24.1 The options are available for exercise by the Purchaser at any time and in any combination from the date of Contract execution to Final System Acceptance (FSA) plus two (2) years. If the Purchaser exercises such options, the Contractor shall deliver such specified quantities of additional or alternative supplies and services as specified in the Schedule of Supplies and Services.
- 24.2 Prices for all optional line items shall have a validity period that corresponds to the option exercise period cited above.
- 24.3 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 he decide not to exercise the options (totally or partially). Further, the Purchaser reserves the right to request 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.
- 24.4 The Purchaser may, in writing, place an order for such additional tasks throughout the entire Contract period up until end of Warranty. Such an order may be placed within the framework of this Contract via the issuance of a Contract Amendment or be formulated via the issuance of a new contractual instrument.

## **25 OPTIMISATION**

- 25.1 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.

- 25.2 The Contractor may, during the Period of Performance, introduce Engineering Change Proposals (ECPs) offering innovations and/or technology insertion with a view towards reducing the Total Cost of Ownership TCO to the Purchaser.
- 25.3 Any such ECP submitted shall cite this Clause as the basis of submission and provide the following information:
  - 25.3.1 A detailed description of the technical changes proposed, the advantages, both long and short term, and an analysis of the risks of implementation;
  - 25.3.2 A full analysis of the prospective savings to be achieved, in the form of a TCO Assessment Report, in both equipment and manpower, including, as appropriate, utility and fuel consumption and NATO manpower, travel, etc.;
  - 25.3.3 A full impact statement of changes that the Purchaser would be required to make, if any, to its operational structure and management procedures;
  - 25.3.4 A fully detailed proposal of any capital investment necessary to achieve the savings;
  - 25.3.5 A schedule of how the changes would be implemented with minimal negative impact to on-going performance and operations.

## **26 CONTRACT ADMINISTRATION**

- 26.1 The Purchaser is the NATO Communications and Information 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.

- 26.2 All notices and communications between the Contractor and the Purchaser shall be written and conducted in English.
- 26.3 Formal letters and communications shall be personally delivered or sent by mail, registered mail, courier or other delivery service, to the official points of contact quoted in this Contract.
- 26.4 Informal notices and informal communications may be exchanged by any other communications means including telephone and e-mail.
- 26.5 All notices and communications shall be effective upon receipt.
- 26.6 Official points of contact are:

**PURCHASER**

Contractual issues:

NCI Agency  
Acquisition Directorate  
  
Building 302 A  
B-7010 SHAPE, Mons  
Belgium

POC: Eva Benson  
Tel: +32 (0) 6544 6103  
Email: [Eva.Benson@ncia.nato.int](mailto:Eva.Benson@ncia.nato.int)

Technical issues:

NCI Agency  
Network Services and IT  
Infrastructure  
Building 302  
B-7010 SHAPE, Mons  
Belgium

POC: Andrew Fleming  
Tel: +44 7525823691  
E-mail: [Andrew.Fleming@ncia.nato.int](mailto:Andrew.Fleming@ncia.nato.int)

**CONTRACTOR**

Contractual issues: **TBD**

Company Name  
Address

POC:  
Tel:  
Fax:  
E-mail:

Technical issues: **TBD**

Company Name  
Address

POC:  
Tel:  
Fax:  
E-mail:



**27 CONFLICT OF INTEREST**

- 27.1 A conflict of interest means that because of other activities or relationships with other persons or entities, a Contractor is unable, or potentially unable to render impartial assistance or advice to the Purchaser, or the Contractor's objectivity in performing the Contract work is, or might be otherwise impaired, or the Contractor has an unfair competitive advantage. Conflict of interest includes situations where the capacity of a Contractor (including the Contractor's executives, directors, consultants, subsidiaries, parent companies or Subcontractors) to give impartial, technically sound advice or objective performance is or may be impaired or may otherwise result in a biased work product or performance because of any past, present or planned interest, financial or otherwise in organizations whose interest may substantially affected or be substantially affected by the Contractor's performance under the Contract.
- 27.2 The Contractor is responsible for maintaining and providing up-to-date conflict of interest information to the Purchaser. If, after award of this Contract or any task order herein, the Contractor discovers a conflict of interest with respect to this Contract or task order which could not reasonably have been known prior to award, or if any additional conflicts or potential conflicts arise after award, the Contractor shall give written notice to the Purchaser as set forth below.
- 27.3 If, after award of this Contract or any order herein, the Purchaser discovers a conflict of interest with respect to this Contract or order, which has not been disclosed by the Contractor, the Purchaser may at its sole discretion request additional information from the Contractor, impose mitigation measures, or terminate the Contract for default in accordance with Clause 39 (Termination for Default) of the Contract General Provisions.
- 27.4 The Contractor's notice called for in paragraph 27.2 above shall describe the actual, apparent, or potential conflict of interest, the action(s) the Contractor has taken or proposes to take to avoid or mitigate any conflict, and shall set forth any other information which the Contractor believes would be helpful to the Purchaser in analysing the situation. Any changes to the Contractor's 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 conflict of interest 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 its 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 TECHNICAL DIRECTION**

- 28.1 The Contract will be administered by the Purchaser on behalf of the Host nation Portugal in accordance with the Clause 25 of these Contract Special Provisions entitled "Contract Administration".
- 28.2 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.
- 28.3 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.
- 28.4 Neither the Purchaser's Project Manager as identified in Clause 25 of these Contract Special Provisions, nor any Technical Representative, as mentioned in Clause 27 above, 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.

28.5 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.

## **29 INTELLECTUAL PROPERTY**

- 29.1 This Article supplements Clause 30 of the NCI Agency Contract General Provisions.
- 29.2 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 without limitation in the number of users, provided the background is used with the foreground and authorise others to use any Contractor Background IPR for the purpose of exploiting or otherwise using the Foreground IPR.
- 29.3 All rights arising out of the results of work undertaken by or on behalf of the Purchaser for the purposes of this Contract, including all deliverables in the Schedule of Supplies and Services, any and all technical data specifications, reports, drawings, computer software data, computer programmes, computer databases, computer software, computer source code, documentation including software documentation, design data, specifications, instructions, test procedures, training material, produced or acquired in the course of such work and, in particular, all rights, including copyright therein, shall from its creation vest in and be the sole and exclusive property of the Purchaser in both object and source code.
- 29.4 The Purchaser will accept no constraints or limitations on the use of Contract deliverables. Accordingly, the Contractor shall not include any Background Intellectual Property or third party software in the code provided to the Purchaser. In the event that any such code would have to be included, the Contractor shall seek Purchaser's prior agreement and ensure that unlimited rights are secured for the Purchaser to use the deliverables under the Contract

**30 INTELLECTUAL PROPERTY RIGHT INDEMNITY AND ROYALTIES**

- 30.1 This Clause augments Clauses 29 of the NCI Agency Contract General Provisions.
- 30.2 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.
- 30.3 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.
- 30.4 The Contractor shall report in writing to the Purchaser during the performance of this Contract:
- 30.4.1 The royalties excluded from his price for patent utilised under the agreements mentioned in Para 31.3 above;
- 30.4.2 The amount of royalties paid or to be paid by the Contractor directly to others in performance of this Contract.

**31 INDEMNITY**

- 31.1 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 Clause 9, "Intellectual Property Rights, Indemnity and Royalties".
- 31.2 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.
- 31.3 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 Clause 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.

- 31.4 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.

## **32 PURCHASER FURNISHED PROPERTY**

- 32.1 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).
- 32.2 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).
- 32.3 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.
- 32.4 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.
- 32.5 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.

- 32.6 The inventory shall note whether:
  - 32.6.1 The property was consumed or incorporated in fabrication of final deliverable(s);
  - 32.6.2 The property was otherwise destroyed;
  - 32.6.3 The property remains in possession of the Contractor;
  - 32.6.4 The property was previously returned
- 32.7 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.
- 32.8 The Contractor shall not modify any Purchaser Furnished Property unless specifically authorised by the Purchaser or directed by the terms of the Contract.
- 32.9 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.

### **33 REACH CAPABILITY**

- 33.1 The purpose of this Article is to define the conditions under which specific Purchaser provided NROI capability (newly called REACH) is made available to the Contractor in the course of this Contract.
- 33.2 The provision of the REACH capability is governed by the standard Article 13 of the NCI Agency, Part III - General Provisions (Purchaser Furnished Property), Article 33 of the Special Provisions and Annex B to the Special Provisions.
- 33.3 Should the Purchaser not be able to meet the SLA related to the provision of the REACH capability as laid down in Annex B of these Special Provisions, the Contractor shall not be entitled to claim an excusable delay nor any compensation against any Articles for the Performance of this Contract and its Amendments.

### **34 PERMITS AND RESPONSIBILITIES**

- 34.1. This Clause Supplements Clause 5 “Language” and Clause 6 “Authorisation to Perform/Conformance to National Laws and Regulations.”
- 34.2. The Contractor shall, without additional expense to the Purchaser, be responsible for obtaining any necessary licenses and permits, and for complying with Host Nation national, local and municipal laws, codes, regulations and standards applicable to the performance of the work. The Contractor shall be aware that, in order to comply with SOW requirements and Clause 6 of the NCI Agency Contract General Provisions, this responsibility shall include provision of documentation in the Host Nation language (Portuguese language). The Contractor shall also be responsible for all damages to persons or property that occurs as a result of the Contractor’s fault or negligence. The Contractor shall also be responsible for all materials delivered and work performed until FSA.

**35 PROTECTION OF WATER, LAND, EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS**

- 35.1 The Contractor shall preserve and protect all structures, equipment, and vegetation (such as trees, shrubs, and grass) on or adjacent to the work site that are not to be removed and that do not unreasonably interfere with the work required under this Contract. The Contractor shall only remove trees when specifically authorized to do so, and shall avoid damaging vegetation that will remain in place. If any limbs or branches of trees are broken during contract performance, or by the careless operation of equipment, or by workmen, the Contractor shall trim those limbs or branches with a clean cut and paint the cut with a tree-pruning compound as directed by the Contracting Authority.
- 35.2 The Contractor shall protect from damage all existing improvements and utilities
- a) at or near the work site, and
  - b) on adjacent property of a third party, the locations of which are made known to or shall be known by the Contractor.
- 35.3 The Contractor shall repair any damage to those facilities, including those that are the property of a third party, resulting from failure to comply with the requirements of this Contract or failure to exercise reasonable care in performing the work. If the Contractor fails or refuses to repair the damage promptly, the Contracting Authority may have the necessary work performed and charge the cost to the Contractor.



**36 OPERATIONS AND STORAGE AREAS**

- 36.1 The Contractor shall confine all operations (including storage of materials) on HN Portugal premises to areas authorized or approved by the Contracting Authority. The Contractor shall hold and save the Purchaser, its officers and agents, free and harmless from liability of any nature occasioned by the Contractor's performance.
- 36.2 Temporary buildings (e.g., storage sheds, shops, offices) and utilities may be erected by the Contractor only with the approval of the Contracting Authority and shall be built with labour and materials furnished by the Contractor without expense to the Purchaser. The temporary buildings and utilities shall remain the property of the Contractor and shall be removed by the Contractor at its expense upon completion of the work. With the written consent of the Contracting Authority, the buildings and utilities may be abandoned and need not be removed.
- 36.3 The Contractor shall, under regulations prescribed by the Contracting Authority, use only established roadways. When materials are transported in prosecuting the work, vehicles shall not be loaded beyond the loading capacity recommended by the manufacturer of the vehicle or prescribed by any national or local law or regulation. When it is necessary to cross curbs or sidewalks, the Contractor shall protect them from damage. The Contractor shall repair or pay for the repair of any damaged curbs, sidewalks, or roads.

**37 SITE CLEAN UP**

- 37.1 The Contractor shall at all times keep the work area, including storage areas, free from accumulations of waste materials. Before completing the work, the Contractor shall remove from the work and premises any rubbish, tools, scaffolding, equipment, and materials that are not the property of the Purchaser. Upon completing the work, the Contractor shall leave the work area in a clean, neat, and orderly condition satisfactory to the Purchaser.

**38 AVAILABILITY AND USE OF UTILITY SERVICES**

- 38.1 As stated in SOW Section 1.8 the Purchaser and the HN Portugal will make all reasonably required amounts of utilities available to the Contractor from existing outlets and supplies. Unless otherwise provided in the Contract, the amount of each utility service consumed shall be charged to or paid for by the Contractor at prevailing rates charged to the Host Nation Governments or, where the utility is produced by the Host Nation, at reasonable rates determined by the Host Nation. The Contractor shall carefully conserve any utilities furnished without charge.
- 38.2
- 38.3 The Contractor shall not be billed for utility usage after FSA.

**ANNEX A: NCI AGENCY NON-DISCLOSURE DECLARATION**

We, the undersigned.....(Company) duly represented by ..... (hereinafter “Contractor”) do hereby certify that we shall ensure that the following conditions be accepted and observed by all (Contractor) employees working under CO-115363-PRT-TDCIS.

---

(Signature)

---

(Full name in block capitals)

---

(Date)

=====

TO BE SIGNED BY THE CONTRACTOR’S EMPLOYEES WORKING IN THE NATO’S PREMISES UPON COMMENCEMENT OF THEIR WORK.

I UNDERSTAND:

That I must preserve the security of all classified /commercial-in-confidence information which comes to my knowledge as a result of this Contract with NATO and that I undertake to comply with all relevant security regulations.

That I must not divulge to any unauthorised person, any classified/commercial-in confidence information gained by me as a result of my Contract with NATO, unless prior permission for such disclosure has been granted by the General Manager of the NCI Agency or by his designated representative.

That I must not, without the approval of the General Manager of the NCI Agency publish (in any document, article, book, CD, video, film, play, or other form) any classified /commercial-in-confidence information which I have acquired in the course of my work under CO-115363-PRT-TDCIS.

That, at the end of Contract and after performance of all required tasks, I must surrender any official document or material made or acquired by me in the course of my work under CO-115363-PRT-TDCIS, save such as I have been duly authorised to retain.

That the provisions of the above Declaration apply not only during the period of work under CO-115363-PRT-TDCIS, but also after my Contract has ceased and that I am liable to prosecution if either by intent or negligence I allow classified/commercial-in-confidence information to pass into unauthorised hands.

That by accepting the position of Support Contractor for NATO corresponding to the tasks and duties described in the present Contract, I will be considered as a Key personnel as specified in Contract Special Provision Article 15.

That I commit to fulfil my obligations for the period of performance mentioned in the Schedule of Supplies and Services (including the optional periods) unless major events beyond my reasonable control happen.

That shall I decide for personal interest to leave the position, I will do my best effort to fulfil my obligations until the Company that is currently employing me has provided NATO with an acceptable suitable substitute in accordance with Special Provision – Article 15.

That I solemnly undertake to exercise in all loyalty, discretion and conscience the functions entrusted to me and to discharge these functions with the interests of NATO and the Host Nation only in view. I undertake not to seek or accept instructions in regard to the performance of my duties from any government, company or from any authority other than that of NCI Agency or the Host Nation.

That within the next two weeks I shall acquaint myself with Host Nation security regulations and security operating instructions.

Date

Full name (in block capitals)

Signature

## **ANNEX B: SERVICE LEVEL AGREEMENT (SLA) FOR THE PROVISION OF REACH LAPTOPS IN ACCORDANCE WITH ARTICLE 33 OF THE CONTRACT SPECIAL PROVISIONS**

### **Introduction**

To improve collaboration between the Contractor and the Purchaser teams, a collaborative environment for the two teams will be established that will provide the ability to process, store and handle information up to and including NATO RESTRICTED. Access to the collaborative environment is provided to the Contractor's Team via the Purchaser NR capability (informally called REACH). This capability will be complemented by a limited access to Purchaser Project Portal.

### **Parties**

The REACH capability will be provided by the Purchaser to support the Contractor Team under Contract No CO-115363-PRT-TDCIS.

### **General Overview**

This is an agreement between the Purchaser and the Contractor under this Contract to establish the:

- Provision of REACH capability for the Contractor Team;
- General levels of response, availability, and maintenance associated with the REACH capability;
- Respective responsibilities of the Purchaser and the Contractor Team.

These provisions shall be in effect for an initial period of three years from the effective date of the Contract or until the end of Contract No CO-115363-PRT-TDCIS, whichever occurs first. It can be extended based on a mutual agreement between the Parties.

### **Provided Capability**

#### **References**

<https://dnbl.ncia.nato.int/Pages/ServiceCatalogue/CPSList.aspx>  
(WPS006, WPS003, WPS008 services)

The Purchaser accepts no liability and provides no warranty in respect of the third party software mentioned above. It is emphasized that the REACHs can only be used by the Contractor's Team within the limits set out in this project description.

### **Scope**

- As described in reference Service Descriptions above

### **Aim**

The REACH capability enables exchanges of information and collaboration up to and including NATO Restricted classification.

### **Limitations**

- The use of the REACH capability requires a NATO Security clearance at NATO SECRET level. Proof of the users' security clearances will be provided to the Purchaser.
- The exchange and collaboration of information is provided through e-mail and Instant Messaging.
- Direct printing capability is not provided, but can be arranged through an extension of this contract requested by the Contractor's Team.
- In case of any problems which cannot be solved remotely from the service desk (The Hague, NLD), the equipment shall be sent to NCIA, The Hague at the Contractor's expenses. Any damages resulting from inappropriate operation or operation in harsh environment or adverse weather conditions, as well as a loss of the system shall be compensated by the Contractor.

### **Assumptions**

The following assumptions apply to this Agreement:

- Any support provided by Purchaser is documented in the service descriptions above
- Security violations of the non-NCIA REACH users are investigated through their local security officers/managers applying NATO rules (CM(2002)49, NCIA (CapDev)AD3-2, and NCIA(CapDev)NR SECOPS).
- Required changes to this Agreement and/or the provision of the REACH capability will be jointly assessed and the implementation agreed between the Parties. The implementation of changes may have an impact on the charges which will be handled through an update of this Agreement.

### **Roles and Responsibilities**

The roles and responsibilities for the provision of the REACH capability are defined in the referenced Service Description, but summarized also herein:

- Contractor Team will receive three (3) REACH terminal.
- The Purchaser will provide the REACH capability and related services.

Points of Contact

- As described in the service descriptions above (WPS008 Service Desk).

**Purchaser's responsibilities**

The Purchaser will:

- Provide to the Purchaser the necessary documentation required for the activation of user accounts and certifications.
- Provide the REACH capability including basic end-user training (1.5-hour duration) and deliver 1 Initial REACH, 2 Additional REACHs.
- Set up and maintain the project web-portal at NR level,
- Provide introduction to the management of the portal (1-2 hours) and service desk for the portal on-site at NCIA, The Hague or through electronic media,
- Grant temporary use of REACH hardware and the software licences for the contracted period,

**Contractor Team Responsibilities**

The Contractor Team shall:

- Sign and return to the Purchaser the required security documentation.
- Provide the internet access required for Remote Access via NCIA REACH,
- Be responsible for the backup of files and data of the REACH on NR accredited media on an authorized Removable Storage Device provided by service provider,
- Ensure that Contractor personnel operating the REACH units possess security clearance of a minimum of NS,
- Provides Security clearance for up to and including NS for the personnel using the REACH capability,
- Provides the contact details of the local Security Officer/Manager and the commitment to apply NATO rules as defined in (CM(2002)49, NCIA (CapDev)AD3-2, and NCIA(CapDev)NR SECOPS)for the investigation.
- Return the equipment at the end of the Agreement at its expenses to the Purchaser,

- Not use the equipment for any other purposes than the purpose set out herein,
- Not lend, rent, lease and/or otherwise transfer the equipment to a third party,
- Not copy or reverse engineer the equipment.

#### **Hours of Coverage, Response Times & Escalation**

- As described in the service descriptions above.

#### **Incidents**

- As described in the service descriptions above.
- Resolution of disagreements

In case of disagreements, all disputes shall be resolved by consultation between the Parties and shall not be referred to any national or international tribunal or other third party for settlement.

#### **Changes**

- For any changes of the REACH capability which will be required to be made during the term of this Agreement, the Purchaser will notify the Contractor CISAF Team at least one week prior to the event and inform about the required consequences.
- Any changes concerning the elements provided by the Contractor Team shall be communicated to the NCIA Service Desk at least one week prior to the event.

#### **Maintenance**

Use of the REACH capability and/or related components require regularly scheduled maintenance (“Maintenance Window”) performed by the Purchaser. These activities will render systems and/or applications unavailable for normal user interaction as published in the maintenance calendar. Users will be informed of the maintenance activities with sufficient notice.



NATO UNCLASSIFIED

**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 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.

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- 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

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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

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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

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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

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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

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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.

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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);



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- 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

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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.

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- 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:

I .....the 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

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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.

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- 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.

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*Name of Company*

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*Signature*

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*Printed Name of Signatory*

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*Title of Signatory*

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*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

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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

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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

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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

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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

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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:

["NCIA-CAPDEV-FMU-BEL\\_E-INVOICES@NCIA.NATO.INT"](mailto:NCIA-CAPDEV-FMU-BEL_E-INVOICES@NCIA.NATO.INT) (note there is an underscore between BEL and E-INVOICES)

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

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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

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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 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 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

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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

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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.

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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.



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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

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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

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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

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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.



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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**

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- 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;
  - 39.1.6 breaches any provision of this Contract; or
- 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;

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- 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

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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:

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- 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

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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

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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



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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

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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

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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.

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**ANNEX 1 TO GENERAL PROVISIONS: PURCHASER'S PRICING PRINCIPLES**A. 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. An 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.





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

**RFQ-CO-115363-PRT-TDCIS**

**Tactical Deployable Communications and Information  
Systems (TDCIS) for the Portuguese Army**

**Book II Part IV**

**STATEMENT OF WORK**

RFQ-CO-115363-PRT-TDCIS
NATO UNCLASSIFIED Commercial-In-Confidence
AMD 5
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# 1 INTRODUCTION

## 1.1 BACKGROUND

- [1] This Statement of Work (SOW) defines the tasks to be performed by the contracted Contractor in order to meet NATO's requirement to deliver a fully coherent and interoperable Tactical Deployed Communication Information System (TDCIS), to the Portuguese Republic Ministry of Defence. This SOW outlines the customer's business and technical requirements for the TDCIS.
- [2] TDCIS shall deploy with the Portuguese National Army (PNA), who developed as a prototype, the proof-of-concept system called "Sistema de Informação e Comunicações - Tático (SIC-T)".
- [3] The SIC-T is a modular System of Systems (SoS) configured into truck-mounted Shelters and Trailers that provides a CIS used on National and International (NATO and non-NATO) Deployed Operations and Exercises.
- [4] This SIC-T is designed to support PNA national and multi-national expeditionary operations at a Brigade level and below; that proof-of-concept now needs uplifting.
- [5] On the 9<sup>th</sup> April 2015, in scoping an uplift, the Customer and the Purchaser agreed a Memorandum of Understanding (MOU) whereby the Purchaser committed to deliver a Customer funded Project called the TDCIS; this was approved in December 17.
- [6] This project is the basis for delivering a TDCIS to the Portuguese Army, as the uplift to the SIC-T system which they developed.

## 1.2 PURPOSE

- [7] The TDCIS Project will ensure the design, development and delivery of a TDCIS for the Customer that can operate within their National and NATO Operations and Exercises.
- [8] The TDCIS will integrate the respective Command, Control, Communications, Computers Intelligence, Surveillance and Reconnaissance (C4ISR) Systems, which will enable PNA units to interoperate with National and International Agencies.
- INT-1 The Contractor shall complete the design, production, assembly, transport, testing, training, documentation, certification, and delivery of all the materials and equipment necessary to deploy a complete and fully functional TDCIS solution.
- [9] From the project's outset, the Contractor shall cater for the integration of all Purchaser Furbished Equipment (PFE) given within the System Requirements Statement (SRS) document.
- [10] The TDCIS is based upon knowledge, experience and lessons learned from the:
- a. PRT prototype SIC-T;
  - b. NATO Deployable CIS (DCIS).
  - c. To support the TDCIS capability integration, the PRT will provide the bearers (e.g. SATCOM airtime), and will provide Vehicles onto which the TDCIS Modules will be mounted or towed.



### 1.3 SCOPE

- [11] The TDCIS will comprise a range of Shelters and Trailers based Node types and a NATO Secret (NS) Kit, as shown in Table 1, each configured for a specific Mission deployment.
- [12] Table 1 below illustrates the profile of TDCIS users across the node types and the domains therein.
- [13] Table 2 illustrates the number of each of the 8 node types required to support the TDCIS user profile given in Table 1.
- [14] The Shelters are mounted on all-terrain vehicles<sup>1</sup> that can be located in the operational scenario as per the mission requirements.
- [15] Missions may use both Shelters and Trailers, some will use two Shelters, others a single Shelter.
- [16] The trailers can be used independently as a Communication rebroadcast facility.
- [17] In addition to the Shelters there are also specialist Trailers, these too are Mission specific but their usage and variability is less complex than the Shelter.
- [18] The TDCIS **does not** include a dedicated Test and Reference Environment.
- [19] The TDCIS **does not** include a dedicated Training Environment.

Table 1 – Specific Mission Deployment

TDCIS Node Security Domain	AN	TN	BCC	CCC	RAP	RL
NU	36	2	18	6	2	2
MR	36	-	18	6	2	-
Xs <sup>2</sup>	24	-	12	-	-	-
Total Users	96	2	48	12	4	2

<sup>1</sup> Vehicles for use with node shelters and towing trailers are PFE and out of scope to this SoW

<sup>2</sup> This term refers to the s\*cr\*t domain in either National or NATO CIS

Table 2 - TDCIS Composition

Item	Node	Composition	Total shelters	Nodes in scope	Total trailers	Batch 1	Batch 2	Batch 3
1	<b>Access Node (AN)</b>	1 Command and MGMT Shelter 1 Transmission Shelter	6	3	-	2	1	-
2	<b>Battalion Communications Centre (BCC)</b>	1 Command and MGMT Shelter 1 Transmission Shelter	10	5	-	2	2	1
3	<b>Company Communications Centre (CCC)</b>	1 Integrated Shelter	13	13	-	4	5	4
4	<b>Radio Access Point (RAP)</b>	1 Transmission Shelter	8	8	-	1	4	3
5	<b>Transit Nodes (TN)</b>	1 Transmission Shelter	7	7	-	2	2	3
6	<b>Rear Links (RL)</b>	1 Rear Link Shelter 1 GAR-T B trailer	3	3	3	1	1	1
7	<b>GAR-T HCLOS Relay</b>	1 GAR-T Relay trailer (2 x HCLOS in each)	-	-	4	1	2	1
8	<b>Spare</b>	1 'Naked' Shelter	2	-	-	2	-	-
<b>Total number of assets:</b>			<b>49</b>	<b>39</b>	<b>7</b>	<b>15</b>	<b>17</b>	<b>13</b>

## 1.4 REQUIREMENTS STRUCTURE

[20] The SOW requirements are organised as per Table 3.

Table 3 - TDCIS SOW Structure

SECTION 1	Introduction
SECTION 2	Scope of Work
(WP1)	Provide System Design
(WP2)	Qualify First Articles
(WP3)	Support Security Accreditation Process
(WP4)	Conduct Training
(WP5)	Conduct UAT(E) and Support Provisional Systems Acceptance
(WP6)	Support Operational Test and Evaluation (OpTEval)
(WP7)	Provide Production Units and Support Full Systems Acceptance (FSA)
(WP8)	Provide a Contractor Logistics Support (CLS) Option
SECTION 3	Project Management
SECTION 4	Integrated Product Support (IPS)
SECTION 5	Documentation
SECTION 6	Configuration Management
SECTION 7	Quality Assurance and Control
SECTION 8	Test, Verification & Validation
SECTION 9	Security Accreditation
SECTION 10	System Acceptance
Appendices:	
Appendix A	Six Phase Plan on a Page
Appendix B	Applicable Reference Documents
Appendix C	Purchaser Furnished Equipment
Appendix D	Maintenance and Support Concepts
Appendix E	Key Personnel Requirements
Appendix F	Project Activity Flow
Appendix G	Table of Acronyms
Appendix H	Glossary of Terms
Annexes:	
Annex A	System Requirements Specifications (SRS) containing the functional and technical requirements

## 1.5 TEST, VERIFICATION & VALIDATION APPROACH

INT-2 All testing, verification and validation activities to be conducted by the Contractor shall be based on the full and detailed breakdown of test events derived from the Requirements Traceability Matrix (RTM) and Verification Cross-Reference Matrix (VCRM).

INT-3 The distribution of the testing efforts derived from the RTM and VCRM over the different Work Packages (and events supporting those Work Packages) shall:

- INT-4 Refine the testing scope under each Work Package, down to specific events;
- INT-5 Be documented at high level in the Project Master Test Plan (PMTP);
- INT-6 Be further detailed in the Test Plans of each of the events supporting the different Work Packages. This is to ensure comprehensive testing is undertaken.
- INT-7 The testing requirements contained under the various Work Packages of Section 2 are intended to highlight the focus of the test events in the Work Package and shall in no-way dilute the requirement for a full comprehensive testing in line with the RTM and VCRM.
- INT-8 The Contractor shall ensure that in case of conflict between the scope of the test events as described in the Work Package and the testing requirements derived from the RTM and VCRM, the latter shall take precedence.

## 1.6 IMPLEMENTATION STAGING

- [21] The project will be executed in six phases, spanning from the Effective Date of Contract (EDC) to 2 years following the declaration of Full System Acceptance (FSA).
- [22] As a guide, the Purchaser has developed a Plan On A Page (POAP) that can be seen at Appendix A, this shall be used by the Contractor to understand the requirement.
- [23] The POAP has 6 Phases with supporting enablers that comprise the following:
- a. Phase 1 – System Design. This phase firmly sets the scene for the whole delivery, it shall conclude with a Preliminary Design Review (PDR) that sets expectation levels on the delivery lifecycle. This is the strategy phase with some of the CDRLs delivered as ‘Presentational’ with some information back up.
  - b. Phase 2 – System Development. This phase develops the PDR baseline further and places a number of key blueprint designs. It also offers the Contractor an opportunity to mature their individual strategies into firm baselined plans. This phase concludes with a Key Milestone CDR.
  - c. Phase 3 – Batch 1 Build. This phase focusses on the manufacture of the Batch 1 nodes. The Phase consists of 5-tranches of build and concludes with a full batch 1 Factory Acceptance Systems Test (FAST).
  - d. Phase 4 – Deliver Training, Conduct UAT(E) and PSA. The Contractor shall be responsible for the execution of this entire phase, including the conducting of Training and UAT(E) at the Customer’s establishment. UAT(E) shall comprise of System and Interoperability Testing when the system’s integration and compliance with NATO Federated Mission Network, Spiral 3<sup>3</sup>, is to be evidenced.
  - e. Phase 5 – Support OpTEVal, and Build Batches 2 & 3. Following successful completion of the PSA, the OpTEVal exercise plus production of Batches 2 & 3 are to be carried out concurrently. The Contractor shall provide consultancy type support to the TDCIS acceptance activity performed by the Customer during OpTEVal. Batches 2 and 3 shall be manufactured with a Factory Acceptance Test (FAT) carried out before delivery to the Customer Site.
  - f. Phase 6 – Achieve FSA. This Phase finalises the Project delivery. The phase

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<sup>3</sup> All statements of FMN from hereon refer to its Spiral 3 iteration.

will conclude when the Contractor and the Purchaser conclude their FSA Report. Contractor Warranty shall commence on successful completion of the FSA, and shall last for a period of 2 consecutive years.

## **1.7 PURCHASER'S RESPONSIBILITIES**

- [24] The term "the Purchaser" means the NCI Agency or its authorised representatives. Where referenced standards, specifications, refer to "the Government", this shall be construed to mean "the Purchaser".
- [25] The project's End User and Sponsor is the Portuguese Ministry Of Defence, referred to as the 'Customer' throughout this document.
- [26] The Purchaser will deliver the TDCIS Project to the Customer.
- [27] The Purchaser has a dedicated Project Manager (PM) assigned to TDCIS. This PM is responsible for the successful delivery of TDCIS, and is supported by Subject Matter Experts (SME) from Customer and Purchaser technical resources.
- [28] The Purchaser's Contracting officer will act as the Purchaser's representative and will be the primary interface for the Contractor.
- [29] The Purchaser's PM will be the Contractor's operational Point Of Contact during the project, who will be supported by specialists who may, from time to time, be delegated to act on the Project Manager's behalf in their area of expertise.
- [30] All changes to the Contract will be made through the Purchaser's contracting office only. Neither the Project Manager, nor any other NATO personnel may make changes to the terms and conditions of the Contract but may only provide the Purchaser's interpretation of technical matters. Changes will only be made via amendment to the Contract.
- [31] The Purchaser will provide the Contractor with FMN technical interface descriptions for the purpose of determining specific interface requirements between the DCIS components and these systems.
- [32] The Purchaser will make available to the Contractor the facilities necessary to test and demonstrate DCIS components compliance with required interfaces to existing NATO systems at the Portugal site.
- [33] Documentation at Appendix B, are available via requests to Delegations.
- [34] Commercially available documentation, detailed in Appendix B, will not be provided.

## **1.8 PURCHASER FURNISHED SERVICES**

- [35] The Purchaser will provide the contractor with access to the Purchaser's Independent Validation & Verification (IV & V) toolset for the purposes collaboration with the Purchaser's testing team.
- [36] The Purchaser will provide 3 REACH laptops for the Contractor to use in working with the Purchaser's Project Management team, during project implementation. This service provided will be charged to the Contractor. On completion of the project, these assets are to be returned to the Purchaser.
- [37] Providing licenses for all Core Services and COI-specific services (FAS). The installation and configuration of these, using PFE configuration data, remains the responsibility of the Contractor;

- [38] The Purchaser will provide Crypto key material for crypto and network access to the Customer's National CIS.
- [39] The Purchaser will provide utility services<sup>4</sup> at the Customer's home nation establishment. These are to support classroom training delivery and testing carried out, up to the successful completion of Preliminary System Acceptance (PSA). Any additional services<sup>5</sup> which may be required to support training delivery prior to PSA, will be the Contractor's responsibility.
- [40] The Purchaser will provide suitable 24 V DC and 220 V AC supplies for the lifting jack kits, detailed within Annex A – System Requirements Statements document.

## 1.9 PURCHASER FURBISHED EQUIPMENT

The Purchaser will furnish the Contractor with the equipment detailed in Annex A – SRS and at Appendix C, which is to be integrated to and with the TDCIS.

## 1.10 CONVENTIONS

- [41] The SOW and its Annexes shall take precedence over the Applicable Documents List in Appendix B of this SOW.
- [42] This SOW invokes a variety of Standard NATO Agreements (STANAGS), Allied Quality Assurance Publications (AQAPs), Military Standards (MIL-STDs) and International Standards.
- [43] Where a national or international standard exists that is not specifically referenced in the STANAGs, AQAPs, or MIL-STDs as being equivalent, the Contractor may propose to utilise such a standard if it can demonstrate to the satisfaction of the Purchaser that such a standard is equivalent to the STANAG, AQAPs, or MIL-STD in question. The Purchaser, however, reserves the right to deny such a request and demand performance in accordance with the standard cited in the SOW.
- [44] Requirements in the SOW are formulated using the form "shall". Context information supporting the requirements definition is provided using the form "will".
- [45] "Shall" statements are contractually binding; "Will" statements are informative.
- [46] Mandatory requirements in the SOW are preceded by a unique heading number, consisting of a prefix, followed by a number.
- [47] Information or context information not conveying any requirement on the Providers is preceded by a number heading in brackets, [xx], without prefix letters.
- [48] Whenever requirements are stated herein to "include" a group of items, parameters, or other considerations, "include" means "include but not limited to".
- [49] Whenever a cross-reference is made to a Section or paragraph, the reference includes all subordinate and paragraphs and cross-references therein.
- [50] 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 all of the activities the Contractor shall provide. The Contractor's approved programme implementation plans determine the actual timing of detailed Contractor activities .

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<sup>4</sup> Water, electricity, gas & broadband.

<sup>5</sup> For example Satellite, Line Of Sight, Radio Frequency communication services, etc.

- [51] 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.
- [52] For the purposes of clarity, all information presented in the delivery of this TDCIS Project shall be in written English.

## **1.11 OPTIONS**

- [53] The scope of the work includes a series of options which is to be costed by the Contractor and presented to the Purchaser for consideration in exercising these.

### **1.11.1 OPTION 1 – ‘NAKED’ SHELTER**

- [54] Item 8 at Table 2 is an option to be considered by the Purchaser for delivery during Batch 1. This node is to have its construction in common with all other node types, with its fixtures and fittings as detailed in the System Requirement Statements (SRS) document at Annex A.

### **1.11.2 OPTION 2 – DEFERRED DELIVERY OF BATCHES**

- [55] Delivery of Batch 3 detailed in Table 2, is to be considered as options, under the terms & conditions detailed in Book 1. The selected bidder's pricing for these batches will determine if this option is exercised at the time of Contract Award, or their purchase will be deferred as given in Book 1.

### **1.11.3 OPTION 3 – IN SERVICE SUPPORT EXTENSION**

- [56] The Contractor shall provide a price to the Purchaser for an extension to the In Service Support, for a period of 12 years. This follows on from the end of 2 year warranty period provided by this project to TDCIS, and is to comply with the requirements detailed in this document at sections 2.7.5, 4.12 & 4.14.

## 2 SCOPE OF WORK

[57] The project scope is translated into a series of Work Packages (WP1 to WP7). Each Work Package (WP) is addressed in greater detail below.

### 2.1 (WP1) PROVIDE SYSTEM DESIGN

#### 2.1.1 OVERVIEW

- i. The TDCIS design shall cover the full scope of the TDCIS systems.
- ii. This design documentation shall separately identify the design for the operational (production) and training systems.
- iii. The scope of the design shall encompass all the components needed to achieve the capability, including:
- iv. CIS Hardware;
- v. Software and licensing;
- vi. Tooling to manage and support the TDCIS;
- vii. Non-CIS hardware (e.g. transit cases, tents, etc.).
- viii. The design shall strictly follow the structure in which requirements are formulated in Annex A (SRS).
- ix. The design shall include the configuration of infrastructure and services, with information provided by the Purchaser.
- x. Any hardware proposed shall not be end-of-life or targeted for end-of-life within 24 months at the time of Critical Design Review (CDR).

[58] The implementation of the TDCIS consists of the assembly, connection, integration and configuration of Commercial of The Shelf (COTS) components, into bespoke systems that are fit for purpose of meeting the Purchaser's requirements and used in support of National and NATO expeditionary operations.

#### 2.1.2 SYSTEM DESIGN PLAN

- xi. The System Design Plan (SDP) shall describe the Contractor's approach to implementing the System Design activities as detailed below.
- xii. The SDP shall identify all activities and deliverables and when they will be provided to the Purchaser, the System Requirements Review (SRR), High Level Design (HLD) to the Low Level Design (LLD).
- xiii. The Contractor shall produce and manage effectively the Requirements Traceability Matrix (RTM) that supports the Design.
- xiv. The Contractor shall, produce a Configuration Capture Acceptance Plan (CCAP) in accordance with Section 2.1.8.
- xv. Within the SDP the Contractor shall indicate how it will run the SRR. The reviews shall be led by the Contractor and shall take the form of a series of workshops between Purchaser and Contractor technical SMEs.
- xvi. The Contractor shall ensure their SDP describes their approach to implementing the System Design activities as detailed below:



- xvii. Identify all activities and deliverables and when they will be provided to the Purchaser, as the design progresses from the CCAP, SRR, and High Level Design (HLD) to the Low Level Design (LLD);
- xviii. Specify how and at what frequency SRR workshops will follow the CCAP, in particular:
- xix. Minimising the design risks by adopting current and proven configurations where possible, whilst fulfilling the characteristics within the SRS;
- xx. Ensuring that the services implemented by TDCIS are compatible and interoperable with those of the existing Customer and Purchaser organisations;
- xxi. Understand the Customer's end user and Purchaser's maintenance and support organisation, and the process between the operational and maintenance levels to be achieved.

### **2.1.3 SYSTEM DESIGN DOCUMENTATION**

- xxii. The Contractor shall be responsible for the complete design of deliverables associated with the TDCIS project, outlining in a System Design Specification (SDS) document, how the system will achieve all functional requirements.
- xxiii. The Initial design, shall be completed and submitted to the Purchaser 2 weeks before the PDR event.
- xxiv. Successful completion of the CDR shall result in the creation of the Allocated Baseline (ABL).
- xxv. The Contractor shall put in place all the required building blocks that would produce CDR Acceptance, noting that the configured baseline design needs to be completed one month prior to the Contractor Conducting its Key Milestone CDR.

### **2.1.4 HIGH LEVEL DESIGN**

- xxvi. The Contractor shall design, develop and deliver a HLD for the TDCIS Composition as seen in Table 2 of Section 1; this shall include the following:
- xxvii. End to end Service perspective;
- xxviii. Overall architecture of the systems of systems;
- xxix. Overall system breakdown structure down to component level, including their functions and interfaces;
- xxx. Identification of high level CI's;
- xxxi. Interoperability with existing assets;
- xxxii. Implementation Constraints;
- xxxiii. Project Master Test Plan (PMTP);
- xxxiv. Defect Management Plan (DMP) identifying attributes & metrics which shall be used to determine if node types are integrated successfully to TDCIS;
- xxxv. Safety Support Case.

- xxxvi. Annexes as a minimum:
- xxxvii. Final CCAP Report (provided with);
- xxxviii. Final SRR Report;
- xxxix. Requirement Traceability Matrix (RTM).

### **2.1.5 LOW LEVEL DESIGN**

- xl. The Contractor shall evolve their HLD into a Low Level Design (LLD).
- xli. The Contractor shall ensure the LLD covers each derivation of the TDCIS Composition as seen in Table 2 of Section 1, including:
  - xlii. The Contractor shall incorporate into their LLDs, the infrastructure and services configuration which has been derived from the SRR's;
  - xliii. The Contractor shall ensure that the LLD encompasses all components needed to achieve the TDCIS requirements.
  - xliv. The Contractor shall ensure the details within the LLD shall include, but not be limited to:
    - xlv. Detailed subsystem and associated design specifications;
    - xlvi. Hardware and software functional descriptions;
    - xlvii. Component, subsystem and system-level:
    - xlviii. Performance calculations;
    - xlix. Availability;
      - I. Capacity, where applicable.
      - ii. The justification for functional and performance allocations to various subsystems and components, in order to achieve the overall system-level requirements, per subsystem;
      - lii. The methodology for the identification and resolution of technical problem areas that may develop at system or subsystem level, during design, production, installation and testing;
      - liii. Identification of internal (intra-nodal) and external interfaces throughout the system to ensure interface compatibility, with special focus on the interfaces to the (external) PFE elements;
      - liv. Engineering drawings, including hardware physical installations, connectivity to other components, power cooling;
  - lv. Technical reviews and reports;
  - lvi. Test, Verification and Validation matters to include:
    - i. Requirement Traceability Matrix (RTM);
    - ii. Verification Cross Reference Matrix (VCRM);
    - iii. Test Plan for each Test Phase. Each Test Phase shall have one or more events supporting the coverage required, as stated in RTM and VCRM.
  - lvii. The LLD shall go down to the Configuration Item level. In this context, Configuration Items (CI) shall be defined based on ACMP-2 specifications and presented for Purchaser approval, and shall be grouped under each

subsystem identified in the system breakdown as defined in the HLD, for each of the Nodes types.

- lviii. In addition the Contractor shall ensure the LLD also contains, as a minimum:
  - lix. Definition of the Configuration Items (CIs), as applicable;
  - lx. The Low Level Design documents of each CI;
  - lxi. Initial security design documentation (based on the system-level and functional-level Security Requirements);
  - lxii. Detailed engineering drawings;
  - lxiii. List of software licensing, support and warranty agreements, if and where applicable.
  - lxiv. For each CI, the Contractor shall ensure the LLD also includes:
    - lxv. Allocated functional and non-functional requirements, as derived from the overall requirements specified in the SRS;
    - lxvi. CI specifications, including drawings, schematic diagrams, models, manuals and other data as appropriate.
  - lxvii. For any Transit Casing, the Contractor shall ensure the LLD includes:
    - lxviii. Transit Case layout plan, covering all communications, information systems, cabling, and power supply equipment and distribution in the TC;
    - lxix. Electrical safety systems;
    - lxx. Environmental Control Unit (ECU) budget calculation, as applicable;
    - lxxi. Power budget calculations;
    - lxxii. Estimated weight budget.
  - lxxiii. The Contractor shall ensure that the LLD they produce is subject to review and acceptance by the Purchaser. The acceptance of the design shall not oblige the Contractor from the responsibility of meeting the requirements and providing a fit for purpose and fit for use capability; and shall be kept up to date with all amendments.

[59] It remains the sole responsibility of the Contractor to prove the design through their testing regime, and it will 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.

[60] In the LLD sufficient detailed information and test data (at component and subsystem level) shall be provided to assure the Purchaser that all functional and performance requirements have been achieved, or have been modified to achievable limits, always without prejudice to contractual specifications.

[61] Annex A to this Statement Of Work, the System Requirement Statements (SRS) provides Functional Description and Technical requirements. The Functional Descriptions are at system-level, whereas the Technical Requirements are provided down to subsystem-level.

- lxxiv. The requirements provided in the SRS at subsystem level include implementation constraints that the Contractor shall adhere to when preparing the LLD.

## 2.1.6 DETAILED LEVEL DESIGN

- lxxv. The Contractor shall design, develop and deliver Detailed Level Design documentation (DLD) for each derivation of the TDCIS Composition as seen in Table 2 of Section 1, the DLD shall be sufficiently populated to allow it to be used for the granular building of the sub-system, module and nodes, it shall include:
- lxxvi. Item specifications, fundamental to what is being built, and for whom;
- lxxvii. An overview of the basic parameters, objectives, any developmental information, prerequisites, and any variations for its intended use;
- lxxviii. Scripts that are necessary for the module to operate and be absorbed into any Automation function (e.g. Software that will need to go into an APPs Stack); noting that these scripts should be able to be passed to a test team for them to draft acceptance test scripts;
- lxxix. Storyboards that are appropriate for the use of the DLD;
- lxxx. All Interface connectivity that allows the sub-system to interoperate with the main system; noting that these should be able to feed into a main Interface Control Document (ICD) as required;
- lxxxi. Any data flow or storage requirements which are required for this element of the design.

## 2.1.7 INTERFACE CONTROL DOCUMENTS

- lxxxii. The Contractor shall design, develop and deliver Interface Control Documents (ICD) that shall bring interfaces into service whose:
- lxxxiii. Interconnectivity characteristics shall be captured in the ICD;
- lxxxiv. ICD shall cover as required, all the new interfaces which shall interoperate with the Customer's National and Purchaser's NATO existing systems.

[62] The Purchaser's SRS contains the TDCIS Architecture and its High Level Specification, which will serve as a basis for the Contractor to develop the TDCIS Design; all Architectural Schemas are to be produced to the Standards of Archimate 3.0 Modelling language.

## 2.1.8 CONDUCT CONFIGURATION CAPTURE

- lxxxv. In order to ensure full interoperability with existing PRT National Systems and NATO Federated Mission Network (FMN), the Contractor shall capture the configuration of the corresponding assets and services prior to starting any low level design activities after Preliminary Design Review (PDR), leading into Critical Design Review (CDR).
- lxxxvi. The Contractor shall ensure that their Configuration Capture (CC) activities fully aligns to the requirement as detailed in their Configuration Management Plan (CMP) of Section 3.2.10 and the Configuration Management Section 6.

## 2.1.9 CONDUCT SYSTEM DESIGN REVIEWS

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lxxxvii. The Contractor shall conduct System Design Reviews that are fully cognisant to the end to end design of TDCIS. The reviews shall:

- a. Verify and discuss the correct allocation of SRS requirements to system design specifications and to verification methodologies, as documented by the Contractor in the RTM and VCRM; and
- b. Verify and approve the overall design proposed by the Contractor;
- c. Verify and approve the overall verification and validation approach proposed by the Contractor.

### **2.1.10 CONDUCT SYSTEM REQUIREMENTS REVIEW**

[63] The System Requirements Review (SRR) will allow the Contractor to present their understanding and interpretation of all the requirements contained in the SRS.

[64] The SRS constitutes the Functional Baseline (FBL) of the TDCIS. Any updates resulting from the SRR become updates to the TDCIS FBL and will be managed by formal change process.

lxxxviii. The Contractor shall carry out System Requirement Reviews as per the Configuration Section 6.3.1.

### **2.1.11 SYSTEM DESIGN BASELINES**

lxxxix. The Contractor shall design and maintain configuration baselines defined at Section 6.3, throughout the performance period of the project.

xc. The Contractor shall be responsible for maintaining consistency between the configuration baselines throughout the project. Any updates or changes shall be formally introduced with full revision control.

### **2.1.12 PRELIMINARY DESIGN REVIEW**

xc. The Contractor shall facilitate at their premises', or by alternative means if necessary, a system design review as part of the Preliminary Design Review (PDR).

xcii. At the PDR, the Contractor shall ensure they present all Management and System Design Plans, and any other information as detailed within CLIN 1 of the Schedule of Supplies & Services (SSS).

xciii. The Blueprint/High Level Design (HLD) shall be submitted to the Purchaser, 2 weeks before the PDR event.

xciv. The Blueprint/HLD shall be updated, based on the Purchaser's comments and the decisions reached at the PDR Meeting.

xcv. During the PDR event, which is expected to last no longer than 1 week, the Contractor shall update the HLD based on the agreed changes during the meeting.

xcvi. The Contractor shall formally submit the updated Blueprint/HLD within a week of the completion of the PDR meeting.

### **2.1.13 CRITICAL DESIGN REVIEW**

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- xcvii. The Contractor shall facilitate at their premises', or by alternative means if necessary, a system design review at a Critical Design Review (CDR).
- xcviii. The Critical Design Review (CDR) shall be devoted to reviewing and approving the LLD submitted by the Contractor 2 weeks earlier before the CDR event, in line with CLIN 1 of the SSS.
- xcix. During the CDR event, which is expected to last no longer than 1 week, the Contractor shall update the LLD based on the agreed changes during the meeting. The Contractor shall formally submit the LLD within a week of the completion of the CDR meeting.
- c. At CDR, the allocation of SRS requirements to system design specifications and to verification methodologies will be assessed and will be subject of approval by the Purchaser.
  - ci. At the CDR, the Contractor shall present their TDCIS HLD and shall demonstrate a proof of concept for the TDCIS.
  - cii. The CDR demonstration shall be in the form of a representative live system of the functionality required by the Customer.
  - ciii. At CDR, the Contractor shall propose those requirements either through:
    - civ. Analysis or Inspection, based on review of the LLD and supporting documents;
    - cv. Inspection of Certificates of Conformity (CoC).
    - cvi. The LLD at CDR shall document and demonstrate a proof of concept for the transit cases sought for the various CIS Modules of the TDCIS and environmental control capabilities.
    - cvii. The approval of the LLD by the Purchaser at CDR shall in no way relieve the Contractor of their responsibilities to achieve the contractual and technical requirements of this SOW and SRS.
    - cviii. Approval of the LLD at the CDR, and for those areas that are not subject of further revisions and changes, shall trigger the Contractor to identify long-lead items required by the First Articles systems.
    - cix. The Contractor shall seek Purchaser approval before placement of order equipment.
    - cx. Approval of the LLD at the CDR will trigger the following:
      - cxi. The assembly of the First Article systems;
      - cxii. The delivery by the Purchaser of any PFE required to assemble the First Articles systems, as well as any configuration details required to enable the preparation of the FAT.

## **2.2 (WP2) QUALIFY FIRST ARTICLES**

- [65] A first instance of each TDCIS node type, hereafter referred to as the First Article, is to be qualified at the factory, prior to any release to support User Acceptance Testing (Equipment) and capability evaluation in Portugal.
- WP2-1. In accordance with directives at Section 8.2, the Contractor shall deliver the Test, Verification and Validation Plan (TVVP)

- WP2-2. The Contractor shall ensure that the Qualification of the First Articles includes all node types.
- WP2-3. The Contractor shall submit to the Purchaser, the testing scenarios to support the system Validation to the Purchaser's approval during CDR. Each scenario shall clearly identify the quantity of personnel, skill sets and task durations. In addition, the Contractor shall make necessary adjustments and improvements to the scenarios the Purchaser may recommend through an iterative review process.
- WP2-4. The Contractor shall bear the costs and provide resources required for testing and TDCIS verification, plus their supporting validation.
- WP2-5. The Contractor shall execute TDCIS component, equipment and system<sup>6</sup> testing, forming the design verification testing, including PFE provided by the Purchaser to the Contractor.
- WP2-6. The Contractor shall, as part of the design's verification, carry out TDCIS component and integration testing at their premises, being supported by the Purchaser's SME.
- WP2-7. The Contractor shall conduct User Acceptance Testing, comprising of Equipment, System and Interoperability tests, shall be carried out at the Customer's establishment, completing system verification testing.
- WP2-8. The Customer is responsible for TDCIS validation, but shall be supported by the Purchaser and Contractor on a consultancy basis during all validation tests prior to successful completion of FSA. These validation tests are to demonstrate TDCIS being fit for purpose. TDCIS validation testing will be referred to as Operational Technical Evaluation (OpTEVal).

### **2.2.1 TESTING STRATEGY**

- WP2-9. Four (4) weeks after contract award, as a part of the TVVP, the Contractor shall propose a Test Strategy encompassing the attributes of a Master Test Plan (MTP) as detailed at Section 8.3.1.
- WP2-10. The TVVP and timelines for all test activities shall then support the Phase 1 PDR.
- WP2-11. The Contractor shall then during Phase 2, develop their test strategy and deliver that strategy within the TVVP as a Formal Test Plan at Phase 2 CDR.
- WP2-12. The Contractor shall deliver a testing strategy for all TDCIS Batches 1 to 3. This strategy shall not be based on the waterfall cyclic delivery of 'Build – Test – Rectify – Re-Test – Verify', instead the Contractor shall deliver a strategy and plan within their TVVP that considers:
- a. An adaptable and dynamic mechanism for the validation and verification process, carried out at the Contractor's and the Customer's establishments;
  - b. Purchaser SME's interaction with the Contractor's Acceptance process;
  - c. All equipment requiring TEMPEST certification at level C, shall be provided with a TEMPEST Certificate. The SRS Table 29 identifies equipment TEMPEST requirements.

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<sup>6</sup> incorporating integration and interoperability testing

- WP2-13. All nodes delivered to the Customer Site as part of Batches 1 to 3 deliveries, shall be configured to their respective node state baseline standard, in as timely a manner as possible;
- WP2-14. The supply, testing and inspection regime for the Batch 1 Products from First Article Inspection (FAI) through First Article Acceptance Test (FAAT), to a First Article Systems Test (FAST);
- WP2-15. The strategy and enabling plan shall support all testing from FAI to UAT(E);
- a. The Planned strategy to support the OpTEVal and to address any deficiencies identified.
- WP2-16. The Plan and inspection regime for the Batch 2 & 3 Factory Acceptance Test (FAT).

### **2.2.2 TESTING APPROACH**

- WP2-17. The Contractor shall ensure their testing approach allows for the Purchaser to witness verification activities on the Node 'Key Modules'. Based on:
- a. A full VVRM Maturity Plan;
  - b. A full Requirements Traceability Matrix Plan (RTMP) to fulfil requirements at Section 8.3.4;
  - c. Confirmation that the fabrication and operation of the equipment is fit-for-use;
  - d. The documentation satisfies the operation and the in-service materiel management is fit-for-purpose, meeting the needs of the User.
- WP2-18. The Contractor shall ensure that their test approach and test strategy as documented within the TVVP for WP2-1, illustrates how the System Administration Guide (SAG) is to be developed, maintained and tested during the course of the delivery, to include the following:
- a. System Release Notes;
  - b. Test Scripts for each of the FAAT, FAST and FAT test sequences;
  - c. Role Based Access Control (RBAC) measures;
  - d. System Configurations;
  - e. Mission data sets shall prove that the TDCIS can be configured with an initial mission data set, and during FAST the Contractor shall ensure that all testing replicates mission data set configuration;
  - f. Plan for batch or patch release of software;
  - g. Intermediate testing;
  - h. A process for Deficiency Reporting, and formal changes for remediation activity planned into the Build Cycle.

### **2.2.3 SYSTEM VERIFICATION APPROACH**

- WP2-19. The Contractor shall ensure that, on completing construction of the first of each node type, the Contractor shall produce As-Built drawings and equipment specifications for each, which the Purchaser will review for completeness and accuracy before delivery to the Purchaser. The Contractor shall not produce any



further nodes of any type, until they have received Purchaser's approval for the associated As-Built drawings and equipment specifications.

- WP2-20. The Contractor remains fully responsible for the technical definition and in satisfying the technical requirements of this SOW. Agreement to the As-Built drawing is an important phase of the verification process but it does not preclude the Purchaser requiring modifications during either the FAI or the FAAT, which shall be the first opportunity to physically verify the design.
- WP2-21. The Contractor shall ensure that any equipment is restored to its initial state at the end of any Test, Verification and Validation activity.

#### **2.2.4 CONDUCT OF QUALIFICATION TESTING**

- WP2-22. Qualification Testing shall be performed on both CIS and non-CIS elements, and shall encompass, Environmental, Dynamic and Vulnerability Testing as shown in Table 23 **without exception**.
- WP2-23. All Qualification Tests shall be performed with all components (including PFE crypto) physically integrated.

#### **2.2.5 BUILD FIRST ARTICLES**

- WP2-24. First Articles shall encompass both the infrastructure of a TDCIS Node, including the set of non-CIS elements supporting those nodes, as per the following paragraphs.
- WP2-25. First Articles shall be built as per the LLD that was approved at CDR.
- WP2-26. The production of the First Articles shall be preceded by Engineering Tests (ET) to be conducted at the discretion of the Contractor.
- WP2-27. The Purchaser shall be entitled to witness Engineering Tests and/or request access to Engineering Test Reports.
- WP2-28. Shipment and receipt of any PFE components shall not be a pre-condition for the Contractor to:
- i. Integrate the subsystems without those devices, and conduct the FAT;
  - j. Integrate the 1<sup>st</sup> article systems without those devices, and conduct a limited FAT, the scope of which would be agreed with the Purchaser.
- WP2-29. Any PFE Cryptographic Controlled Items (CCI) required in support of ET and QT shall be requested by the Contractor not later than 16 weeks prior to the tests in order to allow for transport by crypto channels.
- WP2-30. The Contractor shall ensure that in their planning, the access to and use of Crypto will be carried out within the Customer's home Nation.
- WP2-31. Any Cryptographic equipment shall be transported through secure channels to the Contractor. The Contractor shall manage, use and store these assets in accordance with Customer Nation regulations. The Purchaser will carry no shipments of crypto devices to the Contractor's premises.

#### **2.2.6 BATCH 1 FIRST ARTICLE INSPECTIONS**

- WP2-32. First Article Inspections (FAI) are to be carried out by the Contractor, in the Contractors build facility. This will be the first opportunity for the Purchaser's SME's to witness the systems and to ascertain the fit, form and function of TDCIS.
- WP2-33. The FAI will be carried out a modular level before the systems are integrated.
- WP2-34. The Contractor is to conduct a phased FAI for all Batch 1 Nodes and associated non-CIS equipment.

### **2.2.7 BATCH 1 FIRST ARTICLE ACCEPTANCE TESTING (FAAT)**

- WP2-35. FAAT is to be carried out by the Contractor, on the Integrated TDCIS System, at the Contractors build facility, referring to the Qualification Phase given at Table 23, Section 8.2.
- WP2-36. The Contractor shall provide the Purchaser with access to these events, enabling their SME to determine how the individual nodes operate as independent nodes.
- WP2-37. The Contractor is to certify that Batch 1 Vulnerability Testing has been successful.
- WP2-38. The Contractor is to certify that Batch 1 Environmental Testing has been successful.
- WP2-39. The Contractor is to certify that Batch 1 Dynamic Testing has been successful.
- WP2-40. The Contractor is to conduct a phased FAAT for all Batch 1 nodes and associated non-CIS equipment.

### **2.2.8 BATCH 1 FACTORY ACCEPTANCE SYSTEM TESTING (FAST)**

- WP2-41. Factory Acceptance System Testing (FAST) is to be carried out on First Articles by the Contractor, on the Integrated TDCIS Systems, at the Contractors build factory. This shall reflect the System Integrator Testing aspect of the TVV Assessment Phase given at Table 23 at Section 8.2.
- WP2-42. The Purchaser shall require these events to be witnessed by their SME's to determine how the node will function as an Interoperable System.
- WP2-43. All Batch 1 First Article System Testing will follow QA principles as per Section 7.
- WP2-44. There is a Purchaser expectation that FAST can be completed by simulating RBAC Dummy Accounts, IP Addresses and Network Capability; with the fidelity of simulation being addressed in the Contractors TVVP.
- WP2-45. The Contractor shall certify that Batch 1 FAST Vulnerability Testing has been successful.
- WP2-46. The Contractor is to conduct a phased FAST for all Batch 1 Nodes and associated non-CIS.
- WP2-47. FAT shall be performed in accordance with the Contractor's test regime.
- WP2-48. The Contractor shall ensure that the FAST demonstrates:
- a. Each module (system) is successfully integrated at subsystem and component levels and can communicate with other modules within a given TDCIS node type;
  - b. Each node (collection of modules) is successfully integrated at system (module) level and can communicate with other TDCIS nodes;

- WP2-49. In addition the Contractor shall ensure that the FAST verifies the following, with the First Articles installed at the Contractors test environment:
- a. Functionality of the various subsystems integrated in each of the network modules of each node, including:
    - i. Protected Core Access (PCA);
    - ii. Coloured Cloud Access (CCA);
    - iii. Multi-Media Access (MMA);
    - iv. Boundary Protection System (BPS);
    - v. Local Area Network Subsystem (LAN);
  - b. Uninterrupted Power Supply (built-into Remote Node modules).
  - c. Functionality of the transmission bearers (this may be simulated in the Contractor's build-facility);
  - d. Interfaces within each of the modules (between subsystems), including subsystems outside the module (e.g. radio fits or simulation thereof);
  - e. Intra-nodal connectivity, i.e. testing of the interfaces between the various modules that make each TDCIS Node.
- WP2-50. The Contractor shall also verify:
- a. Any software-defined Virtualisation;
  - b. Any software-defined Automation process;
  - c. Application-consistent backup and subsequent restore of VM running application supporting Microsoft VSS;
  - d. Virtual desktop hosting;
  - e. Deployable Removable Storage (DRS) Subsystem;
  - f. Automated graceful shutdown at UPS battery low state.
- WP2-51. Factory Acceptance Testing shall further verify the functionality and performance of all non-CIS elements specified under Section 6 of Annex A (SRS)

## **2.2.9 SHIPMENT FROM BUILD FACTORY OF BATCH 1 FIRST ARTICLES**

- WP2-52. Upon the Purchaser approval of the FAST Report, the Contractor shall ship First Articles from the factory to the Purchaser's designated location (see SSS) in accordance with the Packaging, Handling, Storage and Transportation requirements detailed in IPS Section 4.9.
- WP2-53. If required for rectification of non-compliances or deficiencies found during WP5, the Contractor shall be responsible for shipping all Batch 1 First Article systems from the Customer's premises back to the build factory. This will require shipping the First Articles system(s) back to the Customer's location, for regression testing, at no expense to the Customer and, or the Purchaser.

## **2.3 (WP3) SUPPORT SECURITY ACCREDITATION PROCESS**

### **2.3.1 OVERVIEW**

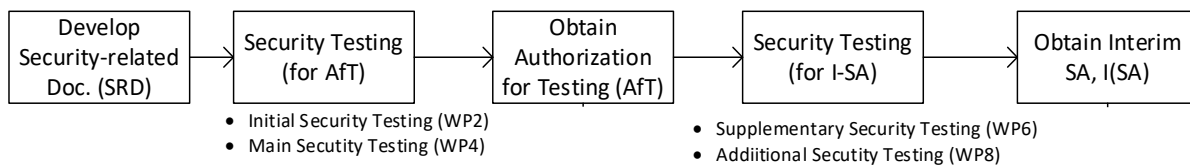
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- [66] TDCIS is to be capable of operating with the Customer's National CIS and those forming a NATO FMN. The latter will be compliant with SPIRAL 3 variant.
- [67] The Contractor is to support the Purchaser in providing information and documentation to the Customer's National replace(SAA), in acquiring accreditation for TDCIS to connect and operate with the Customer's National CIS. The National SAA will also determine if the TDCIS is compliant with NATO SAA directives, for TDCIS connection to and operation with NATO FMN.
- [68] Section 9 herein, details the Security Accreditation requirements for NATO FMN. Following Contract Award, the Purchaser will provide the Contractor with any additional or varying Security requirements for National SAA.

### 2.3.2 SECURITY ACCREDITATION PLAN

- WP3-1 The Contractor shall deliver its Security Accreditation Plan (SAP) as a part of the initial Project Implementation Plan (PIP); see Section 3.2.1. All activities related with the security accreditation process shall be identified in the respective Project Implementation Plan (PIP) and in the Project Management Plan (PMP).
- WP3-2 The Contractor shall ensure the SAP describes:
- a. How the Contractor shall meet all the guidelines and principles of Section 6;
  - b. How the Contractor shall carry out its Site Survey Reports specific to Security;
  - c. Clearly and succinctly, a description of the TDCIS;
  - d. How the Security Accreditation process is to be pursued for this particular system;
  - e. Facilitate and chair its security workshops and meetings;
  - f. What adaptations are required based on NATO approved templates;
  - g. All planning for dates, milestones and deliverables;
  - h. Security descriptions.
  - i. The Contractor shall ensure that the SAP is available for Purchaser review by PDR noting that the PDR will serve to outline the documentation to be produced in relation to the security accreditation objective.
  - j. Timeline specified in the SAP shall be maintained by the Contractor during the project to address changes in the PIP and PMP.
  - k. Any other changes required by the Purchaser to be incorporated into the SAP shall be addressed by the Contractor and provided to the Purchaser who will coordinate this with SAA.
- [69] TDCIS needs to achieve security accreditation in order to be granted the authorisation for operational use in its home nation.
- [70] An example activity flow for a Security Accreditation process can be seen in Figure 1. This is the principle that TDCIS shall be adopting.

Figure 1 - Security Accreditation Activity



**2.3.3 SECURITY ACCREDITATION APPROACH**

- WP3-3 The Contractor shall follow the Security guidelines as detailed herein.
- WP3-4 The Contractor shall follow the following security accreditation principles as established by the SAA, which shall follow:
  - a. The primary objective of security accreditation is to ensure that the required level of protection is achieved and maintained throughout its life cycle;
  - b. An initial version of the Security Accreditation Plan (SAP) which will identify all Security-related Documentation (SRD) deliverables and their timing.
  - c. Alignment to the Customer’s National SAA;
  - d. Strict adherence to the security accreditation activities described in the SAP as approved by the SAA.
- [71] The Customer will be the Operational Authority for TDCIS, while the Customer’s National SAA will be the accreditation authority responsible for:
  - a. authorising TDCIS connecting with the Customer’s National CIS;
  - b. ensuring compliance with NATO policies for TDCIS connection with NATO FMN, SPIRAL 3 version<sup>7</sup>.
- WP3-5 The Contractor shall support NATO Security Accreditation, by providing all nessary security accreditation documentation; NATO accreditation is required by the TDCIS in order to process and store NATO classified information communicated across the FMN.
- WP3-6 The Contractor shall ensure the TDCIS architecture is configured, deployed and operated in compliance with the security requirements and policies of the Customer’s National and NATO SAA.

**2.3.4 SECURITY ACCREDITATION DOCUMENTATION SET**

- WP3-7 Prior to Phase 4, the Contractor shall deliver to the Purchaser the complete Security Accreditation Documentation Set (SADS), also known as the Securiy Related Documentation, that covers the entire system covering and reporting upon all nodes and shelters. The descriptors should be supported with the documents listed at Section 9.3, regarding TDCIS and its integration and operation with National and NATO CIS:

**2.3.5 SECURITY ACCREDITATION APPROVAL**

- [72] The granting of TDCIS Security Accreditation is necessary to grant the Authority To Operate (ATO). However, for pressing operational deployments, Interim Authority to Operate (IATO) can be issued by the National SAA for TDCIS

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<sup>7</sup> All references to Federated Mission Networks and FMN in this SOW are for the SPIRAL 3 version

connection to National CIS. But the Contractor must demonstrate to the National SAA that efforts continue in parallel to achieve ATO.

- WP3-8 In the event IATO is required to be used to meet their operational deadlines, the Customer, as the Operational Authority, shall seek from the Contractor (via the Purchaser), the appropriate documentation to support their validation of TDCIS residual risk<sup>8</sup>, in its connecting with National CIS. It remains, NATO ATO shall still be required for TDCIS connection with NATO CIS (FMN), permitting NATO classified information to be processed by and stored within TDCIS. It is therefore imperative that the Contractor shall make concurrent efforts in acquiring National and NATO ATO for TDCIS.
- WP3-9 Using National and NATO SAA approved document templates, and others as might be required, the Contractor shall produce, complete and manage a full SADS in order for the respective SAA to consider TDCIS for accreditation.
- WP3-10 With support from the Purchaser, the Contractor shall provide evidence and necessary documentation to the Customer Nation's National SAA, enabling TDCIS to be accredited in line with the process at Figure 1.
- WP3-11 Security documentation shall include artefacts designed to enable the testing and operation of TDCIS within the Customer's National, and NATO operational domains. Certifications to be acquired are:
- a. Interconnectivity to NATO Environments;
  - b. The Safe processing of NATO Classified Data;
  - c. Interconnectivity to the national PRT Environment;
  - d. Approval for Testing (Aft): This is to be acquired prior to the start of any verification testing at the Customer's establishment, noting that this certification is not for user testing, it is for any testing prior to operational use;
  - e. Approval To Operate (ATO): ATO is to be achieved prior to the start of OpTEval. (See WP 6 in 2.6);
  - f. Approval To Circulate (ATC): This is to be achieved by completion of OpTEval. (See WP 6 in Section 2.6).

### 2.3.6 SECURITY RELATED RESPONSIBILITIES

- [73] Table 4 below summarises responsibilities related to the development of each security document given at section 9, required for security accreditation process.
- [74] The column "Baseline/Guidance" lists available templates, relevant NATO Security Directives and Guidance, and similar documentation.
- WP3-12 The Contractor shall undertake the work identified in the column 'Contractor Responsibility' in Table 4.

Table 4 - Security Accreditation Related Responsibilities

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<sup>8</sup> On TDCIS achieving National ATO, the residual risk(s) are transferred to the National SAA.

<b>Document</b>	<b>Baseline/Guidance</b>	<b>Contractor Responsibility (The Contractor shall:)</b>	<b>Purchaser Responsibility</b>
SAP	SAP template	None	Develop and update SAP Coordination with the SAA
CIS description	CIS description template	Based on the design adjust it to the CIS description template focusing on security aspects Develop CIS description	Provide applicable documents, templates and guidance to the Contractor Review Coordination with the SAA
SRA	[AC/35-D/1015] [AC/35-D/1017] Tool for formal SRA: NATO PILAR SRA Report template	Conduct SRA Provide the inputs to the SRA per system design. Provide assets identification. Provide safeguards (technical and organizational measures – information security) identification and valuation. Develop SRA Report	Support Contractor in conducting SRA Review Coordination with the SAA
SSRS	[AC/35-D/1015]	Develop SSRS Provide technical input to SSRS	Provide SSRS template to the Contractor. Indicate SSRS sections to be completed by the Contractor. Complete remaining SSRS sections. Provide guidance to the Contractor. Review Coordination with the SAA
SecOPs	[AC/35-D/1014]	Develop Sec OPs for users and system administrators	Provide Sec OPs template to the Contractor. Indicate Sec OPs sections to be completed by the Contractor.

Document	Baseline/Guidance	Contractor Responsibility (The Contractor shall:)	Purchaser Responsibility
			Complete remaining Sec OPs sections. Provide guidance to the Contractor. Review Coordination with the SAA
STVP	[AC/35-D/2005] STVP template	Develop STVP The STVP shall refer to SSRS Develop detailed STVP test procedures Execute STVP	Provide template and guidance to the Contractor Review Coordination with the SAA Witness the testing conducted by a contractor

### 2.3.7 SECURITY ACCREDITATION TESTING

WP3-13 The Contractor shall conduct vulnerability and penetrative Security Testing, producing the necessary Security Test and Verification Reports (STVR) to enable the National and NATO SAA to issue a validated statement, for the approval certificates above . The STVR shall conform with Section 9.11.

### 2.3.8 SECURITY DEFECTS LOG

WP3-14 The Contractor shall present a plan to the Purchaser, for the Contractor’s resolution of defect log entries associated with risks preventing TDCIS accreditation. The Contractor shall not proceed to PSA until a credible plan for their making good security risks identified in the STVR by FSA, is presented to the Purchaser. All defects identified by the Purchaser within this plan shall be resolved by the Contractor, prior to the FSA.

### 2.3.9 GENERAL SECURITY ASPECTS

WP3-15 The Contractor’s premises shall be able to handle information up to and including NATO S\*CR\*T.

WP3-16 The Contractor shall ensure that all information items used in support of the execution of the project shall be protectively marked in accordance with their content and handled accordingly.

WP3-17 The Contractor shall ensure that all Contractor and Sub-Contractor personnel that shall work for this Project, have at a minimum, a current NATO CTS clearance as required by NATO policy. The same staff are to qualify for the home Nation’s approval for handling of information & materials classification is MUITO SECRETO.



- WP3-18 The Contractor's premises employed in implementing this project shall be approved by their Government and the Customer's home Nation authority to receive, handle and store cryptographic material.
- WP3-19 In accordance with NATO Security Policy, inclusive of the Directive on CIS Security, access to Cryptographic Material can only be provided on a strictly-need-to-know basis, for staff in possession of a valid/active CTS/ MUITO SECRETO clearance.
- WP3-20 The Contractor shall follow the Purchaser site access procedure to gain access to the site for the conduct of Project business. The Contractor shall allow time in their planning to achieve this.
- WP3-21 The Contractor shall liaise with and follow the Customer's project sites access procedures, in order to gain entry for project related meetings and activities.
- WP3-22 The Contractor shall notify the Purchaser's PM of their attendance to Customer sites, for the purpose of project related meetings and, or activities. The Purchaser's PM is to be notified no less than 3 weeks in advance of the occasion.

## **2.4 (WP4) CONDUCT TRAINING**

### **2.4.1 OVERVIEW**

- [75] This WP addresses the specific training requirements of this project.
- [76] The objective is also to ensure that the development of training materials and courses (and also of manuals) are based on the outcomes of a task analysis and hence cover the right operation and maintenance tasks.
- [77] All training media, publications, plans and supporting documentation shall be the property of the Purchaser who shall pass on this training media to the end user.

### **2.4.2 TRAINING PLAN**

- WP4-1 The Contractor shall deliver a Training Plan (TP) as a part of the PIP and PMP. The TP shall be delivered in accordance with Section 4.11.2.

### **2.4.3 TRAINING NEEDS ANALYSIS**

- WP4-2 The Contractor shall develop for Purchaser acceptance, a Training Needs Analysis (TNA) with an appropriate Media Analysis. The Training Needs Analysis (TNA) shall be produced in accordance with the Bi-SC Directive 075-007 and in accordance with Section 4.11.3.

### **2.4.4 TRAINING COURSEWARE AND MEDIA**

- [78] This Section addresses the general training requirements applicable to this project. The purpose of these requirements is to ensure that the Contractor provides high quality training materials, courses and trainers. Training material and delivery shall meet the training Accreditation Requirements of the Purchaser as defined in BiSC 075-007 directive.

WP4-3 The Contractor shall provide Training Material and all related training documentation in the English language. Training shall be able to accommodate Purchaser students with an English language skill level of 2222 (STANAG 6001).

WP4-4 The Contractor shall design their training courseware and media in accordance with sections 4.11.5 and 4.11.6.

#### **2.4.5 INSTRUCTOR MANUAL**

WP4-5 The Contractor shall deliver an Instructor Manual for Approval 3 weeks prior to the start of training. The Instructor Manual shall be in accordance with Section 4.11.7.

#### **2.4.6 TRAINING COURSES**

WP4-6 The Contractor shall ensure that Training Course Modules are established in a logical manner which can be passed onto the Purchaser at the end of a successful training phase; see Section 4.11.8.

#### **2.4.7 TRAINING EVALUATION**

WP4-7 Training evaluation is an important function of the overall training delivery, as such the Contractor shall adopt an evaluation process as per Section 4.11.9.

#### **2.4.8 TRAINING TIME FRAMES**

WP4-8 The Contractor shall ensure that their Training Timeframes follow the requirements as detailed in Section 4.11.10.

#### **2.4.9 TRAINING LOCATIONS**

WP4-9 The Contractor shall deliver all planned training within or in the proximity of the Customer's Portuguese establishments.

### **2.5 (WP5) CONDUCT USER TESTING AND PSA**

[79] The Purchaser has a right to repeat the IV&V Assessment process until complete RFC package is ready and mature to start Change Advisory Board (CAB) process or additional tests if requested by CAB.

[80] The CAB will comprise of the Purchaser's Commercial Officer, plus the Project Managers, Technical Leads, Service Delivery from the Customer, Purchaser and Supplier. The CAB will be supplemented by key Subject Matter Experts, based on the issues to be raised during the CAB event.

WP5-1 The Contractor shall conduct User Testing of Equipment (UAT(E)) within, and or, inside a 50 Km radius from the Customer's Portuguese establishment

#### **2.5.1 CONDUCT USER TESTING SITE SURVEY**

- WP5-2 The Contractor shall carry out Site Surveys to collect information on the training, Acceptance Testing and OpTEVal Sites, then populate a Site Survey Report (SSR), covering at least the following data:
- a. All the information relevant to the physical installation of the new equipment at the site;
  - b. Any CIS security implications (in terms of Security Accreditation) at each site, including integration and interaction with already existing cybersecurity components;
  - c. Points of contact, including the local SAA of the site;
  - d. All aspects required for:
    - i. Training;
    - ii. UAT(E);
    - iii. OpTEVal.
  - e. Floor plan layouts of installation spaces (equipment rooms, corridors, offices);
  - f. Temporary equipment storage spaces;
  - g. Cabling (routing, configuration and wiring assignment);
  - h. Availability of electrical power and electrical power conditioning;
  - i. Environmental conditioning.

## **2.5.2 PROVIDE RELEASE PACKAGES**

[81] A Release Package is a planned release of a product or product edition. The content of a Release Package is defined by the features and associated Requests for Change (RFC) that it implements.

WP5-3 The Contractor shall supply the documents The Purchaser will provide a test environment for the Independent Verification and Validation (IV&V) Assessment, including Security Testing, that environment shall be in Portugal at a Customer location; see SSS for detail.

WP5-4 The Contractor shall be ready to support the re-run of all, or of a selected set of IV&V tests, or the execution of new tests.

[82] Once all the final documents required for the Release Package have been submitted and the production baseline has successfully completed the IV&V Assessment, the CAB may grant the Deployment Authorisation for the Release's distribution, i.e. the approval to deploy the TDCIS on NATO Operational targeted networks.

## **2.5.3 USER ACCEPTANCE TESTING (EQUIPMENT) ON BATCH 1 EQUIPMENT**

WP5-5 The Contractor shall carry out formal training prior to the User Acceptance Testing of Equipment (UAT(E)). And that the Contractor shall document in their Training Plans and Test Plans, a pragmatic solution for a natural progression from one to the other; with that natural progression considering the most effective use of training media and actual Batch 1 Assets.

- WP5-6 The Contractor shall assemble, configure and confirm that all Batch 1 Nodes, Trailers and Ancillaries are fit for purpose and ready for UAT(E).
- WP5-7 The Contractor is to facilitate all the UAT(E) Enablers, ensuring as a minimum:
- WP5-8 All Purchaser SME's and necessary Customer personnel involved in the UAT(E) have been suitably trained to a commensurate standard to facilitate the testing;
- WP5-9 All Test Scripts have been pre-approved by the Purchasers SME's;
- WP5-10 During the UAT(E) the Contractor shall undertake a Commissioning and Acceptance (C&A) Trial within a Customer's establishment. The C&A shall be scheduled for a date convenient to all parties but not later than 1 month after delivery of the equipment and documentation to the Customer's establishment;
- WP5-11 The Purchaser will participate on a consultative nature at the C&A, with the Customer attending to observe, becoming acquainted with and receive training in TDCIS management;
- WP5-12 Provide and make available all specialist tooling with relevant documentation in support of the UAT(E)
- WP5-13 The Contractor shall provide full technical assistance, equipment and materials necessary to perform the C&A Tests in accordance with the approved test plant.
- WP5-14 The Contractor shall ensure that the following has been made available to the Purchaser prior to the UAT(E) and labelled with the appropriate protective marking:
- All 'As-built' System Design Documentation;
  - All 'As-built' User & Maintainer Documentation;
  - All 'As-built' Reference Information.
- WP5-15 The Contractor shall support an IV&V Assessment and Security Testing by the Purchaser, prior to UAT(E) to ensure the system is fit-for-use for UAT(E).
- WP5-16 Before the IV&V Assessment, the Contractor shall perform a demonstration to verify system installation, configuration, performance and functionality. After successful demonstration, the system will be handed-over to the Purchaser's IV&V team for further evaluation of its interoperability with other CIS.
- WP5-17 The Contractor shall submit a complete build including source and object code, version description document (including issues and workarounds), including deployment and installation instructions prior to the start of the IV&V Assessment
- WP5-18 The Purchaser will execute thier own set of IV&V test cases and has the right to use the Contractor developed test cases during the pre-IV&V Evaluation.
- WP5-19 The Contractor shall provide all the necessary System Specifications, Hardware i.e. Virtual and Storage capacity and Licenses, for the Purchaser to conduct the required IV&V Assessment.
- WP5-20 The Contractor shall install, set up and configure the system for UAT(E).
- WP5-21 Prior to the UAT(E), the Contractor shall present to the Purchaser, the set of test scripts to be followed.
- WP5-22 The Contractor shall provide a Batch 1 Certificate Of Conformity (CoC) for all Node Types and Trailers that shall be utilised during UAT(E).
- WP5-23 The Contractor shall achieve NATO Security Authority for Testing.
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- WP5-24 The Contractor, with the assistance of the Purchaser, shall utilise, as and when required, the Combined Federated Battle Laboratory Network (CFBLNet) NATO Unclassified Enclave (NUE) and PRT services.
- WP5-25 The Contractor is to prepare systems for functioning within the UAT(E) for Interoperability with:
- a. NATO FMN;
  - b. Customer National Network.
- WP5-26 On conclusion of the C&A and upon acknowledgement, that material is “fit for purpose”, the Contractor shall draw-up a final acceptance report; assisted by the Purchaser. If required, the report shall have an attached deficiency list indicating outstanding items that require follow up, as per the Deficiency Reporting of Section 3.2.10.
- WP5-27 The Contractor shall ensure that the C&A Site and Equipment used shall be restored to its initial state at the end of the C&A at no cost to Purchaser and, or the Customer.
- [83] The scope of the UAT for the Admin Users shall be determined from the user functions as identified from the TNA.
- WP5-28 The Contractor shall conduct and facilitate a full UAT(E) that consists of Scenario based testing, focused on validating the system as per user needs.
- WP5-29 The Contractor shall develop test scenarios based on the operational phase and the type of user. The Contractor shall use Table 5 below as a frame work to develop the testing.

Table 5 – Framework for User Testing

No.	Operational Scenario Phase & required CIS	Admin Users	End Users	Comment
1	Deployment Preparation and Planning			
2	Initial Deployment			
3	Mission Execution			

No.	Operational Scenario Phase & required CIS	Admin Users	End Users	Comment
4	NRF Mission Handover			
5	Redeployment			

**2.5.4 MATERIAL HANDLING**

- [84] The DCIS systems may be deployed at locations where there are no roads or other areas which are not easily accessible. Therefore there will be no forklift trucks or other lifting equipment to handle the transit cases.
- [85] In such circumstances material handling equipment is needed to dismount the equipment from the vans and to take them to the end locations where they will be set up.
- WP5-30 The Contractor shall provide material handling equipment that shall allow the transport of the DCIS systems over unpaved terrain. This is especially important for the heavy transit cases.
- WP5-31 There shall be 1 set of material handling per TDCIS Deployed Point Of Presence (DPOP) used for User Acceptance Teating.

**2.5.5 CONDUCT SECURITY TESTING**

- [86] Security testing is to confirm that all CIS security requirements and associated security mechanisms identified for the TDCIS have been properly implemented.
- [87] Security testing will be conducted on the First Article nodes, configured to be representative of the target network/security domain, including security settings, patches, network configurations and interfacing systems and services, as necessary to represent the live environment as viewed from the perspective of the product, system or service being tested.
- [88] Security testing conducted during the IV&V Assessment is to verify implementation of identified CIS security requirements and associated security mechanism and check the readiness (from the security accreditation point of view) to SAT and enable deployment authority.
- WP5-32 The Security testing shall comply with Section 2.3, specifically the STVP and STVR.
- WP5-33 The STV tests shall be cross-referenced to the security specific requirements, and corresponding security design functions. This cross-referencing shall be via the Reference Traceability Matrix (RTM).
- [89] For any Software, Operating Systems, Middleware, and Firmware that is submitted by the Contractor for inclusion in the AFPL, as well as for any other security-related aspect of the solution, the CCP process requires security testing, including penetration testing and vulnerability assessment.
- WP5-34 The Contractor shall ensure that all the security countermeasures detailed in SSRS and SISRs have been installed and configured for all delivered DCIS equipment.
- WP5-35 The Contractor shall address and fix any issues resulting from the Penetration Testing and Vulnerability Assessment before SAT.

- WP5-36 The Purchaser shall have the right to repeat this process until all identified issues are confirmed fixed.
- WP5-37 As a part of the AFPL process the Contractor shall provide personnel at the Purchasers facility in support of Purchaser Security testing, including and Penetration testing of Software, Operating Systems, Middleware, and Firmware AFPL.
- WP5-38 For any hardware component or subsystem involving Software, Operating Systems, Middleware, and Firmware, penetration testing may be requested to be performed.
- WP5-39 The Contractor's CIS Security Manager shall participate in the Vulnerability Assessment tests under the direction of the Purchaser.
- WP5-40 Contractor's support to Vulnerability Assessment tests shall be available during the test at the Purchaser's premises.
- WP5-41 On successful completion of UAT(E), the system will be ready for PSA, which will be reliant on successful completion of the verification testing carried out by the Contractor's Verification & Validation team and observed by the Purchaser:
- WP5-42 The Contractor shall issue a notice of successful UAT(E) completion and recommendations for entry into Provisional Systems Acceptance.
- WP5-43 The Contractor shall issue a notice of readiness for the Provisional System Acceptance.

## **2.5.6 PROVISIONAL SYSTEMS ACCEPTANCE**

- WP5-44 Before PSA, the Contractor shall provide a Pre-PSA Report with the failures and corrective actions applied during the site activation and operation period including any baseline changes.
- WP5-45 Before PSA, the Contractor shall update any reference environment and training system configuration baseline and documentation resulted from the changes during the operation of this systems. The Contractor shall deliver the updated baseline with the rest of the PSA deliverables.
- WP5-46 For detailed information concerning PSA see Section 2.5.6.
- WP5-47 The Contractor shall issue a notice of successful PSA completion and recommendations for entry into an Operational Technical Evaluation.
- WP5-48 The Contractor shall provide a Batch 1 Certificate Of Conformity (CoC) for all Node types; i.e. OpTEVal Ready.
- WP5-49 The Provisional Systems Acceptance (PSA) will form the Product Baseline for Batch 1 TDCIS and the following Batches 2 and 3.

## **2.6 (WP6) SUPPORT OPERATIONAL TEST & EVALUATION**

### **2.6.1 SHIPMENT OF BATCH 1 FIRST ARTICLES TO OPTEVAL LOCATION**

- [90] Upon Purchaser's approval of the PSA Report and notice of readiness, the Customer's Staff will relocate all Batch 1 Assets to the OpTEVal location.
- [91] A pre-requisite for System Integration is to have received the Deployment Authority
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which entails obtaining an (Interim) Security Accreditation (I(SA)) from the Customer Nation's SAA. I(SA) is also a condition for service provisioning to occur.

WP6-1 The Contractor shall be responsible for the provision of consultative support<sup>9</sup> for the Batch 1 Assets transitional relocation to the OpTEVal location, which is detailed within the SSS.

### **2.6.2 CONDUCT OPTEVAL SITE SURVEY**

WP6-2 The Contractor shall conduct a Site Survey at the OpTEVal location, the Site Survey shall adhere to the site survey requirements in Section 2.5.1.

WP6-3 The Site Survey Report (SSR) shall be delivered to the Purchaser for review and acceptance following the document requirements at Section 5, not later than 2 weeks following the Site Survey.

### **2.6.3 SUPPORT TO THE OPTEVAL**

[92] The OpTEVal will be conducted by the Purchaser with preparation of equipment in a Customer location.

[93] OpTEVal occurs after the system has been granted PSA and Interim Security Accreditation (I(SA)).

[94] Successful completion of OpTEVal is a condition to achieve Full System Acceptance.

[95] The OpTEVal is to be carried out using Batch 1 Equipment, when the TDCIS is expected to:

- a. Demonstrate that the TDCIS is Fit for Purpose, by placing it in the hands of the Operational Users to verify that the Operational Acceptance Criteria (OAC) are fulfilled through scenario-based testing;
- b. Verify that the training delivered under WP4 is fit for purpose;
- c. Verify that documentation has been delivered and can be effectively used to operate and support the system in the field;
- d. Verify integration with additional PFE not involved in previous test instances, including interaction with the Operational Users;
- e. Verify that the system interoperates with other PRT and NATO assets.

[96] The OpTEVal will consist of following steps:

- a. Planning;
- b. Preparation;
- c. Deployment;
- d. OpTEVal Execution;
- e. Redeployment;
- f. Finalisation.

WP6-4 The Contractor shall provide a Batch 1 Certificate Of Conformity (CoC) for all Node Types and Trailers that shall be utilised during OpTEVal.

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<sup>9</sup> Providing informal assistance and information to Customer staff during execution of OpTEVal



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- WP6-5 OpTEVal shall be interoperable with the already selected Customer National and NATO FMN systems.
- WP6-6 The Contractor shall provide on-site SME support during OpTEVal.
- WP6-7 In case of a critical failure during OpTEVal, the Contractor shall fix the failure and restore the system within a maximum of 4 hours.
- WP6-8 To minimise the down-time effecting TDCIS operational availability, the Contractor shall keep critical spares on-site during the OpTEVal.
- WP6-9 The Contractor shall apply the formal Change Management process for the fixes requiring the change of the approved baseline. The Contractor shall update the system configuration baseline and documentation resulted from the changes during or resulted from OpTEVal. The Contractor shall deliver the updated baseline before FSA
- WP6-10 The Contractor shall support, through a consultative regime an Operational Technical Evaluation (OpTEVal) in consideration of the following:
- WP6-11 Whilst a Customer responsibility, the OpTEVal is a part of the overall Validation process;
- WP6-12 OpTEVal shall validate the TDCIS Capability, illustrating that it is fit for purpose, meeting all business and operational requirements;
- WP6-13 The Purchaser will provide the Customer Field Exercise Plan (FEP), detailing what is to be performed on OPTEVAL by trained PNA personnel;
- WP6-14 With consultative support from the Purchaser and Contractor, the Customer will conduct the OPTEVAL at Sta Margarida Army Compound, inside a Tactical environment suitably replicating the conditions of a NATO Deployed operation;
- WP6-15 The Purchaser shall witness the OpTEVal evolution in close proximity.
- WP6-16 The Contractor shall ensure during OpTEVAL that the following is carried out:
- a. Correcting faults discovered during the exercise;
  - b. Amending all documentation impacted by corrective work;
  - c. Updating all training and associated documentation, impacted by corrective work.
- WP6-17 The Contractor shall ensure that during the OpTEVal the system's stability remains operational with no service outages. (This exckudes outages caused by Purchaser Furbished services)
- WP6-18 During the above mentioned steps the Contractor shall:
- a. Provide advice to the Purchaser on the functionality and capability of the TDCIS Nodes;
  - b. Provide expertise on any different sites of the whole OpTEVal (in garrison, in the field) and witness the whole process;
  - c. The Purchaser has the right to conduct User Test as part of OpTEVal. Prior to the OpTEVal, the Users will provide scenarios to be tested, and the Purchaser will create test plans that will be shared with the Contractor.
- WP6-19 The Contractor shall support Purchaser-conducted series of User tests at CIS and Network level, which will be minimum of one week long.
- [97] The OpTEVal will include testing interfaces to other Customer assets, which will be
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- configured and operated by the Purchaser in support to the tests.
- [98] During the OpTEval, the equipment will be operated by trained Customer personnel.
- [99] As part of OpTEval, all equipment will be delivered in mission-specific state.
- [100] The OpTEval will be performed in a tactical training environment suitably replicating the operational conditions of a NATO deployed operation to the greatest extent possible.
- WP6-20 Either just before or as the part of the OpTEval, the Contractor shall conduct Additional Security Testing in accordance with the SAA-approved STVP. This is to verify the successful implementation of all those CIS security requirements and associated security mechanisms that were not successfully completed during previously conducted security testing instances.
- [101] Depending on the results for the previous security testing instance(s), none or only very limited amount of security tests should be tested during additional security testing.
- WP6-21 Security Test and Verification Reports (STVR) shall be developed and released by the Contractor one week after completion the Additional Security Testing but not later not later than 4 weeks prior FSA. This is to enable issuance of (I)SA for the TDCIS.
- WP6-22 The Contractor shall be responsible for the Operational and Maintenance (O&M) support of the system throughout the OpTEval's full duration, as follows:
- a. 2 weeks of hands-on training to prepare the users who will conduct the OpTEval;
  - b. 2 weeks for setting up the system at the OpTEval locations. This duration could change subject to the amount of effort estimated by the Contractor;
  - c. 3 weeks of OpTEval, including User Tests;
  - d. 1 week (back-up).
- WP6-23 The Contractor shall be responsible for correcting the faults founds during the test and amending, if necessary, the corresponding documentation and any other documentation (including training) affected by those changes.
- WP6-24 The Contractor shall ensure that all critical spare parts are on location throughout the OpTEval period.
- WP6-25 The Contractor shall ensure the system remains fully operational with no service outages greater than 60 minutes occurring during each working day.
- WP6-26 The Contractor shall plan the support concept for OpTEval accordingly with the Support Requirements provided in Section 4.13. The Contractor shall provide Subject Matter Experts (SME) onsite over the OpTEval period and resolve major issues outside of normal working hours, working overnight if required.
- WP6-27 The Contractor shall maintain a logbook recording any significant event for the acceptance and final testing. The logbook shall contain, as a minimum, the details of the test executed, their ratings, deficiencies noted, test duration, and important remarks.
- WP6-28 The Contractor shall provide technical support to the Purchaser for configuring and readying the TDCIS system for testing. Contractor support will be sought for the following:
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- WP6-29 Verifying that the TDCIS system (preconfigured in its mission-specific state) is able to meet the notice to move of 5 days, i.e. patching and initial functional testing activities shall not require more than 5 days;
- WP6-30 Testing services following FMN design and principles where applicable, based on the service requirements as defined for the corresponding NRF during the corresponding exercise planning cycle. The Purchaser will provide the service requirements to the Contractor whenever available;
- WP6-31 Testing of Customer of Interest (Col) services, in accordance to the exercise Steadfast Cobalt verification and validation (V&V) approach. The focus of the Col V&V will be testing the ability of the TDCIS to support the end-to-end provision of the service (e.g. including all the underlying communication services, firewalls, etc.) between the nodes and external services (i.e. nations). The Purchaser will share the applicable Steadfast Cobalt V&V approach when available, after Contract Award.
- [102] Successful completion of the OpTEval will be a contribution to the Final System Acceptance (FSA)
- WP6-32 The Contractor shall issue a notice of readiness for the Full System Acceptance.
- WP6-33 The Contractor shall support the Service Transition of all Batch 1 Systems.

## **2.7 (WP7) PROVIDE PRODUCTION UNITS**

### **2.7.1 PROVIDE LICENSES**

- WP7-1 The Contractor shall provide all software licenses necessary for Batch 1, 2 and 3 equipment, and these can be provided on a batch by batch basis.
- WP7-2 The Contractor shall ensure that any Hardware or Software Licensing procured for TDCIS are procured for the Customer's consumption, noting that when the TDCIS Batch 1, 2 and 3 reaches a handover status, no additional licensing or unplanned permission sets shall be attributed.
- WP7-3 Where commercially available, perpetual licenses shall be procured and delivered under this Contract,
- WP7-4 Any software listed as PRT National Software will be provided as PFE for the Contractor to implement and integrate.
- WP7-5 Licenses shall encompass but shall not be limited to:
- a. Any software images running on active network components, i.e routing, switching, bridging and data diode components;
  - b. Any software images (e.g. hypervisors, operating systems) and applications running on compute and storage components;
  - c. Any software images and applications, including the static and deployable staging systems;
  - d. The Operating System (OS) of any workstations delivered with the First Articles;
  - e. The OS of the system administer workstations delivered with the First Articles;
  - f. Voice over Internet Protocol (VoIP) licenses for phone appliances delivered with the First Articles Small Team Nodes.

### **2.7.2 CONDUCT BATCH 2 AND 3 FACTORY ACCEPTANCE TESTING**

- [103] Factory Testing encompasses the tests to verify that all production units comply with the specifications. The FAT will be the factory acceptance of all TDCIS Batch 2 & Batch 3 Assets prior to being shipped to the Customer. The Customer should receive fully configured assets.
- [104] Any software listed as Customer National Software will be provided as PFE for the Contractor to implement and integrate.
- WP7-6 Factory Testing is applicable for each production unit and shall consist an agreed subset of the Factory Acceptance Testing test cases.
- WP7-7 The Batch 2 and 3 FAT Reports shall be issued to the Purchaser within 1 week of FAT completion. A successful FAT will be a pre-condition to approve the shipment of equipment to the PRT Customer.

### **2.7.3 PROVIDE SYSTEM DOCUMENTATION**

- WP7-8 As part of the Batch 1, 2 and 3 deliverables, the Contractor shall provide the System Documentation outlined at Section 2.7.3, in keeping with the processes at Section 5. These documents are to include:
- a. As-built (including 3D digital models);
  - b. Operations Manuals;
  - c. Maintenance Manuals;
  - d. Technical Documentation;
  - e. COTS documentation;
  - f. ESECS.

### **2.7.4 PROVIDE BATCH 2 PRODUCTION UNITS**

- [105] The Factory Acceptance Test (FAT) will be for the factory acceptance of all TDCIS Batch 2 Assets prior to being shipped to the PRT Customer.
- WP7-9 The Contractor shall ensure that Batch 2 Nodes, as given at Table 2, are manufactured, built, assembled and made ready for Factory Acceptance Test (FAT).
- WP7-10 The Contractor shall Supply all Batch 2 Equipment.
- WP7-11 The Contractor shall assemble all Batch 2 Equipment.
- WP7-12 The Contractor shall conduct a Phased Batch 2 Factory Acceptance Testing (FAT), to the Purchaser's acceptance.
- WP7-13 The Contractor shall provide all 'as-built' documentation.
- WP7-14 The Contractor shall provide and apply Batch 2 NATO Codification and a CoC.
- WP7-15 The Contractor shall Deliver all Batch 2 Equipment to the Customer's site.
- WP7-16 The Contractor shall ensure that the Customer receives fully configured Systems at node state.
- WP7-17 The Contractor shall support the Service Transition of all Batch 2 Systems.

### **2.7.5 PROVIDE BATCH 3 PRODUCTION UNITS**

- [106] The Factory Acceptance Test (FAT) will be the factory acceptance of all TDCIS Batch 3 Assets prior to being shipped to the PRT Customer.
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- WP7-18 The Contractor shall ensure that Batch 3 Nodes are manufactured, built, assemble and made ready for FATThe Contractor shall ensure that the Customer receives fully configured Systems.
- WP7-19 The Contractor shall Supply all Batch 3 Equipment.
- WP7-20 The Contractor shall assemble all Batch 3 Equipment.
- WP7-21 The Contractor shall conduct a Phased Batch 3 FAT, to the Purchaser's acceptance;
- WP7-22 The Contractor shall provide all 'as-built' documentation.
- WP7-23 The Contractor shall provide Batch 3 NATO Codification and CoC.
- WP7-24 The Contractor shall Deliver all Batch 3 Equipment to the Customer's site;
- WP7-25 The Contractor shall ensure that the Customer receives fully configured 3 Systems.
- WP7-26 The Contractor shall support the Service Transition of all Batch 3 Systems.

### **2.7.6 SHIPMENT OF PRODUCTION UNITS**

- WP7-27 The Contractor shall ship the Batch 2 and 3 production units as per the SSS.
- WP7-28 The Contractor shall be responsible for shipping any elements affected by deficiencies back to factory, following systems acceptance testing. Rectified<sup>10</sup> elements are to returned to the Customer from where the came, before Final Systems Acceptance (FSA) can be declared.
- WP7-29 Shipping of rectified production units shall adhere to the requirements in IPS Section 4.9 and at no expense to the Customer and, or the Purchaser.

### **2.7.7 FULL SYSTEMS ACCEPTANCE**

- WP7-30 Before Full Systems Acceptance (FSA), in parallel with the Batch 2 and 3 deliveries, the Contractor shall update the user documentation (deployment, system, operation, maintenance and reference manuals), if there are any missing and incorrect information spotted during OpTEVal.
- WP7-31 After all Batch 1, 2 and 3 Equipment's are accepted by the Purchaser, and after the Service Transition is complete, an FSA may be carried out; see Section 2.6.3.

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<sup>10</sup> This may take the form of maintenance, repair and, or replacement.

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### 3 PROJECT MANAGEMENT

- [107] The goal of the Contractor's project management is to guide the project through a controlled, well-managed, visible set of activities to achieve the desired results.
- [108] The Project will be managed and be subject to review by the Purchaser, who will be represented by the NCI Agency Project Management Team (PMT). This team will include relevant NCI Agency personnel (Contracting Officer, Project Manager, Project Engineers, Subject Matter Experts, Independent Verification and Validation engineers).
- MNG-1 In advance of their occurrence, the Contractor shall identify potential problems and associated risks, with mitigating actions to be presented to and agreed by the Purchaser.
- MNG-2 In the event problems identified to the Purchaser do occur, the Contractor shall propose to the Purchaser for consideration and acceptance, contingency measures for resolution of the incidents. Contingency measures are to minimise impact on the project's critical path of implementation.

#### 3.1 CONTRACTORS PROJECT MANAGEMENT ORGANISATION

- MNG-3 The Contractor shall establish a project management organisation and maintain a Project Management Office (PMO) to perform and manage all efforts necessary to meet all their responsibilities under this Contract.
- MNG-4 The Contractor shall provide all necessary manpower and resources 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.
- MNG-5 The Contractor shall use PRINCE2 or a similar and internationally recognised Project Management methodology for the direction, governance and management activities for the entire project.
- MNG-6 The Contractor shall ensure that the personnel identified below are considered as Key Personnel:
- a. Project Manager;
  - b. Technical Lead;
  - c. Test Director;
  - d. Training Manager;
  - e. IPS Manager;
  - f. Quality Manager
  - g. CIS Security Manager;
  - h. Configuration Manager.
- MNG-7 The Contractor shall ensure that Suitably Qualified and Experienced Personnel (SQEP) fill the Key Personal roles above, throughout the whole life of the project, and in accordance with, as a minimum, the Table 43 seen in Appendix E.
- MNG-8 The Contractor shall provide the Purchaser with Curriculum Vitae (CV) for each member of their staff assigned to this contract for review.

- MNG-9 The Contractor shall ensure staff reviewed and selected for this project are in place and available on Contract Award
- MNG-10 The Contractor shall ensure all their staff assigned to this project has suitable security clearance for working within Customer and Purchaser establishments, before they start work on the project.
- [109] The Purchaser's Project Manager (PM) will act as the Purchaser's representative and will be the primary interface between the Contractor and Purchaser after the EDC.
- MNG-11 The Contractor's Project Manager shall be prepared at all times to present and discuss the status of Contract activities with the Purchaser's Project Manager, Contracting Officer, and/or Technical Lead.
- MNG-12 The Contractor's Project Manager shall have experience managing projects similar to this project in technical and financial scope.
- MNG-13 Key personnel on the Contractor side shall actively liaise with Purchaser's personnel with equivalent roles, as required.
- MNG-14 The Purchaser's Quality Manager shall report to a separate manager within the Contractor's organisation at a level equivalent to, or higher than the Project Manager.
- MNG-15 The Contractor shall consult regularly with the Purchaser to ensure that project management practices are compatible, meet their joint requirements and are tailored to meet the requirements of the project.
- MNG-16 All documentation produced under this Contract shall follow the document convention and format as detailed in Section 5.
- MNG-17 Unless otherwise stated documentation shall follow the review process under Section 5.

## **3.2 PROJECT MANAGEMENT DOCUMENTATION**

### **3.2.1 PROJECT IMPLEMENTATION PLAN**

- MNG-18 The Project Implementation Plan (PIP) shall describe how the Contractor shall implement project/contract administration.
- MNG-19 The PIP shall consider all project implementation aspects, which include management provisions, facilities, schedules, personnel assignments, external relationships and project control.
- MNG-20 The PIP shall provide sufficient detail to allow the Purchaser to assess the Contractor's plans and capabilities in implementing the entire project in conformance with the requirements specified.
- MNG-21 The Contractor shall ensure that the PIP accurately reflects Contractor's plans for the full duration of the period of performance of the Contract.
- MNG-22 After approval by the Purchaser, the final version of the PIP shall be the official document against which the Contractor is expected to conduct the performance of the Contract. The approved PIP shall however not supersede the Contract, and the Schedule of Supplies and Services (SSS) in particular.
- MNG-23 The content of the plans in PIP is described in detail in the related sections of this SOW.

- MNG-24 All plans in the PIP above involve a sequence of activities. For each major activity, the plan shall at least provide the following information:
- a. Timeline of the activity
  - b. Locations where the activity will take place;
  - c. Methodology and processes followed to implement the activity;
  - d. Actors involved in the activity, covering:
    - i. On the Contractor's side, both prime and Sub-Contractors, with detailed information on the roles and responsibilities of each;
    - ii. On the Purchaser's side, required players and description of how they will engage in the activities and with the actors on the Contractor's side.
  - e. Information required from the Purchaser for the activity to take place;
  - f. Documentation tree and deliverables for the activity, where applicable;
  - g. Review and acceptance process of the documentation above, where applicable.
- MNG-25 In all plans of the PIP, the Contractor's proposed timelines shall be commensurate and contingent upon the nature of the risks relevant to the efforts concerned, as identified in the Risk Management Plan.
- MNG-26 All plans in the PIP shall provide:
- a. Tables listing activities and dates, as tabular version of the Gantt charts;
  - b. Lists of deliverables under each plan (in turn mapped to CLIN numbers).
- MNG-27 All plans in the PIP shall contain a mechanism to visually track the changes in any of the artefacts above, throughout the various revisions of the PIP. Alternatively, the changes can be itemised in Release Notes or similar (in tabular form).
- MNG-28 The PIP shall cover all aspects of project implementation including management, schedules, personnel assignments and Project Controls, necessary to provide the TDCIS capabilities, as required by this SOW.
- MNG-29 The PIP shall be sufficiently detailed to ensure that the Purchaser is able to assess the Contractor's plans, capabilities, and ability to satisfactorily implement the entire Project in conformance with the requirements as specified in this SOW.
- MNG-30 The Contractor shall produce Draft PIP. The Draft PIP shall address all comments received at Contract Award.
- MNG-31 The Draft PIP shall be reviewed during SRR.
- MNG-32 The Contractor shall continue to update the Project Implementation Plan (PIP) produced and delivered at the time of the Bid, until FSA.
- MNG-33 The Contractor shall ensure that the PIP accurately reflects Contractor's plans for the full duration of the period of performance of the Contract.
- MNG-34 The PIP shall bundle the following products:
- a. Product Breakdown Structure (PBS);
  - b. Project Work Breakdown Structure (PWBS);
  - c. Project Master Schedule (PMS);
  - d. Risk Management Plan, including Risk Log;
  - e. Issue Management Plan, including Issue Log.
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- MNG-35 The Contractor shall provide the following Plans specific to specialist areas. The Contractor may want to include these in the PIP, but as a separate section:
- a. System Design Plan (SDP);
  - b. Security Accreditation Plan (SAP);
  - c. System Installation Plan (SIP);
  - d. Project Master Test Plan (PMTP);
  - e. Integrated Product Support Plan (IPSP)
  - f. Technical Publication development Plan (TPDP)
  - g. Training Plan (TP);
  - h. In Service Support Plan (ISSP);
  - i. Documentation Plan (DP).
- MNG-36 The draft PIP version shall be provided to the Purchaser for review and acceptance within four (4) weeks after Effective Date of Contract (EDC). The PIP will be reviewed by the Purchaser and comments submitted to the Contractor no later than five (5) working days after receipt.
- MNG-37 PIP final version shall be provided to the Purchaser six (6) weeks after Effective Date of Contract (EDC). The approval of the PIP and of any updated plan of the PIP by the Purchaser 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 by the Contractor.
- MNG-38 The approval of the PIP shall in no way relieve the Contractor from their responsibilities to satisfy the contractual and technical requirements of this Contract. The requirements of the Contract supersede the statements of the PIP in the case of any conflict, ambiguity or omission.
- MNG-39 The PIP shall be updated 2 weeks prior to every Project Review Meeting, up to CDR, at which time the PIP shall become final.
- MNG-40 From CDR onwards, the following plans shall be updated by the Contractor as appropriate throughout the duration of the contract, beyond the time of release of the Final PIP:
- a. Project Master Test Plan;
  - b. Training Plan;
  - c. Documentation Plan;
  - d. Integrated Product Support Plan.
- MNG-41 Each revision of the PIP shall entail a revision of each of the plans.
- MNG-42 Any revisions of the PIP shall be subject to Purchaser approval.

### **3.2.2 PROJECT MANAGEMENT PLAN**

- MNG-43 The Project Management Plan (PMP) shall describe how the Contractor will implement the totality of the project, including details of the project control that will be applied.

- MNG-44 The PMP shall describe how the Contractor shall implement project/contract administration, including details of the controls that shall be applied to supervise Sub-Contractor performance.
- MNG-45 The PMP shall provide sufficient detail to allow the Purchaser to assess the Contractor's plans and capabilities in implementing the entire project in conformance with the requirements specified.
- MNG-46 After approval by the Purchaser, the final version of the PMP shall be the official document against which the Contractor is expected to conduct the performance of the Contract. The approved PMP shall however not supersede the Contract, and the Schedule of Supplies and Services (SSS) in particular.
- MNG-47 The PMP shall describe the Contractor's organisation, assignment of functions, duties, and responsibilities, management procedures and policies, and reporting requirements for the conduct of contractually-imposed tasks, projects, or programmes.
- MNG-48 The PMP shall identify all major Contractor operating units and any SubContractors involved in the development of System and a description of the portion of the overall effort or deliverable item for which they are responsible.
- MNG-49 The PMP 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 System as required by this Contract.
- MNG-50 The Contractor shall ensure that the PMP remains current throughout the duration of the Project to reflect the actual state of the Contractor's organisation and efforts, and maintain a current copy on the Collaborative Environment.
- MNG-51 The Contractor shall maintain the baseline version of the PMP on the Collaborative Environment.
- MNG-52 The Contractor shall brief any changes to the PMP at all Project Review Meetings.
- MNG-53 The PMP shall cover at least the following areas:
- a. Project organisation:
    - i. Internal structure, including a project organisational diagram;
    - ii. Roles and responsibilities of each organisational unit;
    - iii. Key personnel, their qualifications, and their responsibilities;
    - iv. Organisational boundaries between the project organisation and the parent and subcontracted organisations.
  - b. Project management processes:
    - i. A description of the Contractor's project management methodology and approach to be used for this project;
    - ii. Project start-up, including staffing, basis of cost and schedule estimates, and project infrastructure;
    - iii. Project control, including monitoring, reporting of work packages.
  - c. Communications management, including the Collaborative Working Environment and its establishment, maintenance and use; Project Progress Reports; Project Checkpoint Reviews; and all other communications with the Purchaser and Sub-Contractors;
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- d. Lessons Learned management, including the identification, reporting, and logging of lessons learned in a Lessons Learned Log;
- e. Security management:
  - i. Security management, including personnel and facility security;
  - ii. Purchaser involvement:
  - iii. Purchaser involvement via Joint Reviews, informal meetings, reporting, modification and change, implementation, verification, approval, acceptance and access to facilities;
  - iv. Expected Purchaser Furnished Equipment and associated timelines;
  - v. Delivery procedures for the documentation and the products. This includes control of Purchaser Property, export control process.

MNG-54 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.

### **3.2.3 PROJECT MASTER SCHEDULE**

- MNG-55 The Contractor shall establish and maintain a Project Master Schedule (PMS).
- MNG-56 The PMS shall contain all Contract events and milestones, including Contract-related Purchaser activities and events (e.g., Purchaser reviews, provision of specific Purchaser-furnished items).
- MNG-57 The PMS shall identify, when PFE are required throughout the Project life so that it can be implemented/integrated in a timely fashion.
- MNG-58 All Contractor and Purchaser activities and milestones related to Documentation, Training, Integrated Product Support (ILS), Quality Assurance (QA) and Configuration Management (CM) shall be identified and included in the PMS.
- MNG-59 The PMS shall provide the duration, sequence, and resource effort to deliver tasks providing a realistic assessment of the scope of work involved.
- MNG-60 The PMS shall include the delivery dates for all products identified in the SSS.
- MNG-61 The PMS shall correlate with the PWBS and also be traceable to performance and delivery requirements of this SOW.
- MNG-62 The PMS shall identify the start and finish dates, duration, predecessors, successors, and resource requirements for each work item.
- MNG-63 The PMS shall identify the progress for each task.
- MNG-64 The PMS shall include the delivery dates for all management products (e.g., project plans, Project Progress Reports), including at least the initial submission, the review cycles and the final delivery.
- MNG-65 The PMS shall include activity network, activity Gantt, milestone, and critical path views of the project schedule.
- MNG-66 The PMS shall be based on Microsoft Project 2010. Any changes to this version shall be approved by the Purchaser.

### **3.2.4 PRODUCT BREAKDOWN STRUCTURE**

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- MNG-67 The PBS shall identify the physical outcomes of the project. It shall define all the products that the project has to produce. The product breakdown structure shall show the scope broken down in a hierarchical manner and at a sufficient level to ensure a clear understanding of the product and its status. It shall identify all components of the system, hardware and software, the Infrastructure, the Service, and documentation required by the Contract.
- MNG-68 Each constituent sub-product shall be related to a precise sub-set of the System Requirements Specification (SRS) and be identifiable to the Contract (SSS).
- MNG-69 The Product Description shall be sufficient to understand the purpose and function of the product and the level of quality required of the product.
- MNG-70 The PBS shall include the percentage of accomplishment for each sub component. This status shall be included in the highlight reports.
- MNG-71 The Contractor shall provide the initial baseline version of the PBS within four weeks after WP1 PDR.
- MNG-72 The PBS shall be put under Configuration and Change Control.

### **3.2.5 PROJECT WORK BREAKDOWN STRUCTURE**

- MNG-73 The Contractor shall establish and maintain a Project Work Breakdown Structure (PWBS).
- MNG-74 The Contractor shall capture 100% of the work defined by the project scope, as well as all deliverables in terms of the work to be completed, including project management, in the PWBS.
- MNG-75 The Project Work Breakdown Structure shall include:
- a. The definition of all the work packages and the relationship between the work packages and the end product;
  - b. The description of 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;
  - c. For each work item its location, duration, resource requirements, inputs and outputs, predecessors and successors, assumptions, constraints, dependencies, and requirements for Purchaser support;
  - d. The PWBS shall include a PWBS Dictionary that identifies for each work item its duration, resource requirements, inputs and outputs, predecessors and successors, assumptions, constraints, dependencies, and requirements for the Purchaser support.
- MNG-76 The Contractor shall not change the PWBS or PWBS Dictionary without the approval of the Purchaser.

### **3.2.6 COMMUNICATION PLAN**

- MNG-77 The Contractor shall submit a Communication Plan (CP) that shall describe:
- a. How the communication with the Purchaser, in a collaborative manner, will be carried out to ensures a successful project;
  - b. How the Contractor shall facilitate and chair its varying workshops and meetings, including the pre/post-event activities the Contractor will be responsible for;
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- c. The Contractors PMP shall define this communication plan and the kick-off-meeting will determine how that way-of-working matures for the project. The Communication Plan will cover:
- d. There will be both formal deliverable meetings and a day-to-day interaction where the Purchaser's PM will be in communication with the Contractor's PM thus ensuring any problems or opportunities can be acted upon in a timely manner.
- e. Any Contractor communications regarding the execution of this project shall only be conducted with the Purchaser's PM, who shall ensure that relevant stakeholders and Points of Contact (PoC) are notified.
- f. No third party outside of the TDCIS project organisation shall be offered and, or accept any guidance, instruction, or information regarding the project, unless it comes from the Purchaser's PM.

### **3.2.7 TRAINING PLAN**

MNG-78 The Contractor shall deliver its Training Plan (TP). The TP is to describe how the Contractor shall meet the training requirement and be detailed as per Section 4.11.2.

### **3.2.8 TEST VERIFICATION & VALIDATION PLAN**

MNG-79 The Contractor shall deliver its Test Verification & Validation Plan (TVVP). The TVVP shall describe how the Contractor:

- a. Shall deliver all the necessary tests, inspections and demonstrations;
- b. Intends to deliver its test strategy;
- c. Facilitate and chair its TVVP workshops and meetings;
- d. Activities will be delivered for system verification;
- e. Shall deliver the commissioning and acceptance process;
- f. Shall support the capability evaluation activities of OpTEVal;
- g. Shall support the transition to service of Batch 1, 2 and 3;
- h. Shall document and provide notification of entry and exit to each test transition;
- i. How certification shall be obtained from the relevant authority.

### **3.2.9 DEFECT REMEDIATION PLAN**

MNG-80 The Contractor shall deliver its Defects Remediation Plan (DRP). The DRP shall describe how the Contractor shall:

- a. Deal with failures identified during both hardware and software testing;
- b. Missing or damaged items received by the Purchaser during shipping;
- c. Deal with remediation that requires formal change process.
- d. Facilitate and chair its change workshops and meetings;

### **3.2.10 CONFIGURATION MANAGEMENT PLAN**

- MNG-81 The Contractor shall deliver its Configuration Management Plan (CMP) as per the specification detailed in Section 6.3.
- MNG-82 The Supplier shall ensure the plan is a structured living document, compliant with ACMP-1, and consistent with all other project plans, specifications, standards, documents and schedules.

### **3.2.11 QUALITY ASSURANCE PLAN**

- MNG-83 The Contractor shall deliver its Quality Assurance Plan (QAP) in support of the PIP as per the specification detailed in Section 7.1.

### **3.2.12 SERVICE TRANSITION PLAN**

- MNG-84 Utilising the principles of ITIL v3, the Contractor shall produce a Service Transition Plan (STP), presenting it to the Purchaser 2 months before the start of the FSA.
- MNG-85 The STP shall cover:
- a. The relevant IPS/ILS aspects of Section 4;
  - b. The Service transition deliverables of Section 8;
  - c. Transition Planning & Support;
  - d. Service Asset & Configuration Management (SACM);
  - e. Service Validation & Testing (SVT);
  - f. Knowledge Management (KM);
  - g. Change Management (CM);
  - h. Release & Deployment Management (RADM).

### **3.2.13 RISK MANAGEMENT**

- MNG-86 The Contractor shall establish a risk management process and perform risk management throughout the period of performance of this Contract.
- MNG-87 The Contractor's Risk Management process shall enable and define identification of all types of risks, evaluation and prioritization of each risk, definition of proposed response strategy, owner and actions and suggested monitor and control mechanisms.
- MNG-88 The Contractor shall establish a Risk Management Plan (RMP).
- MNG-89 The Contractor shall document, update and maintain status of all risks in the Risk Log, as an Annex to the RMP.
- MNG-90 The Contractor shall update the Risk Log at minimum on a monthly basis and upload it on the Collaborative Environment in a format agreed with the Purchaser.
- MNG-91 The Contractor shall brief the Risk Log at all Project Progress Meetings and Design Reviews.
- MNG-92 The RMP shall be developed by establishing and maintaining a strategy for identifying, analyzing, and mitigating risks.

- MNG-93 The risk management strategy shall address the specific actions and management approach used to apply and control the risk management program. This shall include identifying the sources of the risk, the scheme used to categorise risks, and the parameters used to evaluate.
- MNG-94 The RMP shall be under configuration control.
- MNG-95 The RMP shall include:
- a. Risk Management processes and measurement methodology;
  - b. Key Risk Categories;
  - c. Risk Prioritization Matrix;
  - d. Risk Management organisation, roles and responsibilities;
  - e. Requirements for communicating risks and risk status with the Purchaser;
  - f. Risk Log.
- MNG-96 The Risk Log shall list all the risks, and indicate for each one the following information (but not limited to):
- a. Risk identifier: unique code to allow grouping of all information on this risk;
  - b. Description: brief description of the risk;
  - c. Risk category (e.g. management, technical, schedule, quality and cost risks);
  - d. Impact: effect on the project if this risk were to occur;
  - e. Probability: estimate of the likelihood of the risk occurring;
  - f. Risk rating (High, Medium, Low);
  - g. Proximity: how close in time is the risk likely to occur;
  - h. Response strategy: avoidance, mitigation, acceptance, transference;
  - i. Response plan(s): what actions have been taken/will be taken to counter this risk;
  - j. Owner: who has been appointed to keep an eye on this risk;
  - k. Author: who submitted the risk;
  - l. Risk Stakeholders;
  - m. Date identified: when was the risk first identified;
  - n. Date of last update: when was the status of this risk last checked;
  - o. Status: e.g. closed, reducing, increasing, no change.

### **3.2.14 ISSUE MANAGEMENT**

- MNG-97 The Contractor shall establish and maintain a process for identifying, tracking, reviewing, reporting and resolving all project issues.
- MNG-98 The Contractor shall propose an Issue Management Plan (IMP)
- MNG-99 The Contractor shall develop and maintain an Issue Log where all project issues are recorded and tracked regardless of their status, as an Annex to the IMP.
- MNG-100 The Contractor shall update and maintain the Issue Log throughout the period of performance of this Work Package.
-

MNG-101 The Contractor shall update the Issue Log at minimum on a monthly basis on the Collaborative Environment in a format agreed with the Purchaser.

MNG-102 The Contractor shall brief the Issue Log at all Project Review Meetings and Design Reviews.

MNG-103 The IMP shall outline the general processes and techniques to monitor, control, report the issues affecting the project both in technical and administrative terms in all phases of the project. The IMP shall be under configuration control.

MNG-104 The IMP shall include:

- a. Issue Management processes (identification, reporting, assessment, and logging of project issues);
- b. Issue Log.

[110] A Project Issue is anything that affects the Project, either detrimental or beneficial (e.g. problem, error, anomaly, risk occurring, query, change in the project environment, change request, off-specification).

[111] In accordance with PRINCE2 an issue is defined as, "a relevant event that has happened, that was not planned, and requires management action". It can be any concern, query, and request for change, suggestion or off-specification raised during a project. Project issues can be about anything to do with the project".

MNG-105 The Issue Log shall comprise the following information (but not limited to):

- a. Project Issue Number;
- b. Project Issue Type (Request for change, Off-specification, general issue such as a question or a statement of concern);
- c. Author;
- d. Date identified;
- e. Date of last update;
- f. Description;
- g. Action item/Decision;
- h. Responsible person (individual in charge of the action item);
- i. Suspense date (Suspense date for the action item);
- j. Priority;
- k. Status.

MNG-106 The Issue Log shall be maintained in a format where sorting and filtering of issues is possible.

### **3.3 PROJECT MEETINGS**

#### **3.3.1 PROJECT IMPLEMENTATION MEETINGS**

MNG-107 The Contractor shall support a Contract Kick-off Meeting (KOM), meeting with the Purchaser's Contracting Officer at the Purchaser's facility (The Hague-Netherlands, Brussels-Belgium or Mons-Belgium) within two weeks after Contract Award to review the schedule of activities and to discuss any preparations or coordination required to support DCIS implementation effort.



[112] Attendance in person is necessary.

MNG-108 At KOM, the Contractor shall also present updated elements of the Project's Implementation: Project Management Plan, the Project Master Schedule, the Risk log, the Configuration Management process, the Configuration Status Accounting database, the Quality Management process and the Collaborative Environment.

MNG-109 The Contractor shall identify any pre-requisites to support the implementation of present contract.

MNG-110 The Contractor shall provide templates for all types of site surveys for review and approval by the Purchaser.

MNG-111 Following this initial meeting, the Contractor shall conduct Project Progress (PPM) and Project Review Meetings (PRM), in adherence to the requirements in the following sections.

### **3.3.2 PROJECT REVIEW MEETINGS**

MNG-112 The Contractor shall coordinate and hold the following Project Review Meetings (PRM) with the Purchaser:

- a. PRM 1 includes System Design Review Meeting
- b. PRM 2 includes First Article System Test (FAST) Meeting
- c. PRM 3 includes Provisional System Acceptance (PSA) Meeting
- d. PRM 4 includes Final Systems Acceptance (FSA) Meeting

MNG-113 Two weeks before each PRM the Contractor shall provide a Project Status Report (PSR), with the status of all on-going tasks, the status of the Contract deliverables, and identifying any changes to the System Design Specification (SDS), Risk Log and Issue Log.

MNG-114 Problems shall be identified and discussed with the Purchaser Project Manager promptly, and shall not be held over until the next PRM. Problems should not remain undisclosed in between meetings.

MNG-115 The location of PRM 1, PRM 3 and PRM 4 shall be at the Purchasers premises in Mons (BEL), and when possible, it shall be scheduled with other project meetings. When deemed necessary by the Purchaser the PRM shall be held in an alternate location.

MNG-116 The Contractor shall arrange Project Progress Meetings (PPM) with the Purchaser to occur on a regular basis or at the request of the Purchaser if the situation requires.

MNG-117 The location of the meetings will ordinarily be at Purchaser's premises. Other NATO locations, or at the Contractor's premises may be used if Purchaser and Contractor both consent.

MNG-118 Unless otherwise specified, at least two weeks before all meetings required under this Contract, the Contractor shall send an invitation, including:

- a. Purpose;
- b. Agenda;
- c. List of participants;
- d. Date, hour, place, duration.

MNG-119 If meeting facilities at a location are not available at the specified Purchaser location in the time frame required to support a meeting, the Contractor shall:

- a. Reschedule the meeting to such time as meeting facilities are available at the Purchaser location, with no further adjustment to schedule or cost; or
- b. Provide suitable meeting facilities (e.g., hotel meeting facility) for the meeting/review at no additional cost to the Purchaser; or
- c. Arrange to host the meeting at the Contractor's facility. This facility shall be provided at no additional cost to the Purchaser.
- d. In the event no facilities are available or accessible, the Collaborative Working Environment shall be used to best effect in achieving the meetings' objectives.

MNG-120 The Contractor shall provide minutes of all meetings. The Minutes shall include:

- a. Date, place, and time of the meeting;
- b. Purpose of the meeting;
- c. Name of participants;
- d. Approval of previous meeting's minutes and all resolutions;
- e. Record of principle points discussed, actions taken, and decisions made;
- f. Copies of materials distributed at the meeting.

MNG-121 The minutes shall not be used as a mechanism to change the terms, conditions or specifications of the Contract nor as a vehicle to alter the design or configuration of equipment or systems. Such changes shall only be made by agreement, amendment or by authorised mechanisms as set forth in the Contract.

MNG-122 In addition to the mandatory meetings, the Contractor shall support ad-hoc meetings. These meetings will be held in NCI Agency offices at Mons or Waterloo. They will last 2 days maximum. These meetings will be devoted to discussing management issues, technical issues, or both. Technical issues will be discussed through Joint Technical Reviews (refer to 3.3.5).

MNG-123 Dates for the PRM shall be mutually agreed between the Purchaser and the Contractor.

MNG-124 PRM shall by default take place at the Purchaser's premises. When coinciding with System Design Reviews, the PRM shall take place at the Contractor premises.

MNG-125 All types of communication including the meetings, phone calls, correspondences and project documentation shall be in English.

MNG-126 If the programme of a given PRM cannot be fulfilled at the intended date owing to one or more CDRL products being late and/or failure to meet the required quality criteria, the PRM shall be delayed and re-scheduled following mutual agreement between the Purchaser and the Contractor. In such circumstances the Purchaser may call one or more Ad-Hoc Meetings, in order to discuss project progress outside the nominal PRM sequence.

[113] Video-Teleconference (VTC) may be used at PRM in circumstances where it may be difficult to otherwise ensure attendance by the required personnel.

MNG-127 Use of VTC over the NR Collaborative Environment shall be at the Purchaser's discretion.

MNG-128 Should the Contractor wish to use VTC, a written request with justifications shall be submitted to the Purchaser not less than eight working days in advance of the scheduled meeting.

[114] The Purchaser's PM will chair the meetings.

MNG-129 The normal PRM agenda shall include:

- a. Review of the minutes recorded and agreed at the previous PRM;
- b. The Contractor's presentation of the Project Progress Report;
- c. Schedule Review;
- d. Risk Log Review;
- e. Issue Log Review;
- f. Discussion/resolution of problems and areas of concern;
- g. If necessary, a summary of items to be discussed; and
- h. Any other business.

MNG-130 During the meetings, the Contractor shall present slides covering all the points of the planned agenda. These slides shall be accessible by the Purchaser at least 5 working days before the meeting.

MNG-131 The Contractor shall attend and provide the meeting's Secretary in all meetings, including those held over VTC links.

MNG-132 During the meeting, the meeting's Secretary shall be fully devoted to capturing the minutes of the meeting for input to the Project Progress Reports

### **3.3.3 PROJECT PROGRESS MEETINGS (PPM)**

MNG-133 The Contractor shall convene a PPM every six (6) weeks following the initial Project Implementation meeting. This will be conducted at the Purchaser's premises initially and, or using videoconferencing facilities if required.

MNG-134 On the project's implementation activities relocating to the Customer's home nation, the PPM shall be held in the Contractor's project facility within the Customer's home nation. Videoconferencing facilities are to be used in exceptional circumstances, determined by the Purchaser.

### **3.3.4 PROJECT PROGRESS REPORTS (PPR)**

MNG-135 The Contractor shall submit a PPR to the Purchaser two (2) weeks in advance of the scheduled PPM

MNG-136 This PPR shall summarise the progress since the previous PRM or since the last PPR, any accomplishments, schedule of deliveries against progress, difficulties encountered and resolution of any issues raised in previous PRMs. The Highlight Reports shall include:

- a. Overall project progress: the activities performed and works completed during the preceding period including major milestones achieved as applicable;
- b. Description of issues/problems/risks that have occurred in the preceding period and the identified/proposed solution (Issue Log);

- c. A list of Change Proposals with the current status;
- d. Configuration Status Reports (CSR) for the system and all documentation (CDRL);
- e. Answers to questions addressed by the Purchaser between two meetings;
- f. The progress of work related to the schedule in the current PMS;
- g. Status of the equipment (equipment order, in Contractor's office, packing, transfer to site, deploy and test);
- h. Any foreseen or possible changes to project performance or schedule. In case of changes, the Contractor shall give the updated performance or schedule;
- i. Description of any identified problems and high risk areas and the proposed solutions and corrective actions;
- j. Activities planned for the next period;
- k. Supplies to be delivered by the Contractor and those to be provided by the Purchaser;
- l. Update on the status of Action Items List (AIL).

[115] Upon receipt of the PPR, and in absence of a Project Review Meeting opportunity near, the Purchaser can call for a PPM or an Ad-hoc meeting with the Contractor (refer to Section 3.3.5), for the purpose of reviewing or discussing the PPR contents. The meeting may either involve physical presence, or take place over a video conference session.

MNG-137 The Contractor shall maintain an archive of PPR.

MNG-138 The Contractor shall prepare and submit a Project Progress Report (PPR) to the Purchaser every 6 weeks, 2 weeks prior to the PRM, and throughout the performance period of the contract.

MNG-139 The Contractor shall maintain an archive of PPR on the TDCIS Collaborative Environment outlined in Section 3.5.

MNG-140 Draft minutes shall be produced real time during the PRM and shall be agreed, signed and countersigned by the Contractor and the Purchaser representatives, daily, by close of business.

MNG-141 The approval (signatures) of the final content, both recorded discussion items and agreed action items, shall be possible by close of business on the last day of the meeting.

MNG-142 These minutes shall not be regarded by the Parties as a mechanism to change the terms, conditions or specifications of the Contract nor as a vehicle to alter the design or configuration of equipment or systems. Any such changes shall only be made by Contract amendment or by authorized mechanisms as set forth in this Contract.

MNG-143 The minutes shall not exceed ten (10) pages, unless specifically approved by the Purchaser.

MNG-144 The Contractor shall not consider the minutes as the basis for changes to the terms and conditions of the Scope of Work of the Contract in the absence of a formal Contract Amendment.

MNG-145 The Contractor shall send the final version of the signed draft minutes to the Purchaser not later than 5 working days after the meeting, for final approval by the Purchaser.

[116] The Purchaser can send questions and comments concerning the documentation delivered between two meetings.

MNG-146 The KOM, PPM or a PRM shall not last more than 2 (two) days.

MNG-147 PRM shall consider formal revisions of the Contract's Deliverables, to be reviewed and if acceptable, approved by the Purchaser's Commercial Officer.

MNG-148 These meetings shall be held at the Purchaser's premises unless factors beyond the Purchaser's control determine alternates means and, or locations be used.

### **3.3.5 AD-HOC MEETINGS**

[117] Ad Hoc Working Meetings (AHM) may be organised by on request of either the Purchaser or the Contractor, pending Purchaser agreement, to resolve problems, clarify project requirements and review progress in between the nominal PRM sequence.

[118] These meetings will normally be held at the Purchaser's premises and, or teleconferencing facilities.

MNG-149 Minutes of the Ad Hoc Working Meetings shall be written real time by the Contractor and sent to the Purchaser within 5 working days following the meeting. Comments received will be taken into account and incorporated. Once the Minutes are accepted by both parties' respective Project Managers, the Contractor shall upload the final version to the Collaborative Working Environment.

### **3.3.6 JOINT TECHNICAL REVIEWS**

MNG-150 The Contractor shall organise and conduct joint technical reviews, as defined in IEEE 12207, (Table 39, Appendix B) to address and resolve critical technical issues in advance of major reviews such as Requirements, Design or Test Reviews.

MNG-151 The Contractor shall propose the subject and the timing of the joint technical reviews to ensure the most critical technical risks are raised and mitigated as early as possible. The joint technical reviews should be planned as early as possible but as a minimum 4 weeks in advance to provide sufficient time for the identification of appropriate operational users and arrangements for their participation.

MNG-152 The Contractor shall deliver the following information at least two weeks prior to each review: a meeting agenda and a list of issues to be reviewed, with an impact assessment, root cause of the issue (evidence) and possible solutions per issue.

MNG-153 Unless otherwise agreed by the Purchaser, all joint technical reviews shall be conducted at a Purchaser facility. The specific date and location must be agreed between the Contractor and the Purchaser's Project Manager.

MNG-154 The Contractor shall provide all relevant resources including personnel, hardware, software, and tools at each review.

MNG-155 The Contractor shall provide the following items at each review: presentation and discussion of each issue, including relevant technical material, such as requirements references, design specifications, views, use cases, operational employment scenarios, screenshots, or prototypes, or developmental baseline release.

### **3.4 SITE SURVEYS**

MNG-156 Site Surveys shall collect information on the site or sites of interest, into a Site Survey Report (SSR), covering at least the following data:

- a. All the information relevant to the physical installation of the new equipment at the site;
- b. Any CIS security implications (in terms of Security Accreditation) at each site, including integration and interaction with already existing cybersecurity components;
- c. Floor plan layouts of installation spaces (equipment rooms, corridors, offices);
- d. Temporary equipment storage spaces;
- e. Cabling (routing, configuration and wiring assignment);
- f. Availability of electrical power and electrical power conditioning;
- g. Environmental conditioning;
- h. Points of contact, including the local SAA of the site.

### **3.5 COLLABORATIVE WORKING ENVIRONMENT**

MNG-157 Using the REACH service provided by the Purchaser, and funded by the Contractor, the Contractor shall establish a Collaborative Working Environment (CWE) in which TDCIS project management related and technical documents are to be processed and stored.

MNG-158 The CWE structure shall be proposed by the Contractor and shall be subject to agreement by the Purchaser's PM.

MNG-159 All documentation, subject to formal review and acceptance by the Purchaser, shall be clearly identified up front to allow the Purchaser to conduct the review. The Contractor shall provide a review sheet with each document for Purchaser to list their comments. The Contractor shall provide the proposed actions and responses in the same sheet before the next review cycle.

MNG-160 The Contractor shall use organised folder structure to clearly identify the documents (with their CI numbers) and their working versions from the released versions. Each document type folder should have two separate folders to clearly distinguish the released versions from the working versions including the document review sheet.

MNG-161 The Contractor shall implement an access control mechanism to restrict viewing of all documentation on the CWE to a list of users approved by the Purchaser and administered by the Contractor.

MNG-162 The CWE Portal site shall allow the Purchaser access to the management documentation required at Sections 3.2 and 5.1.

MNG-163 The CWE Portal shall allow the Purchaser access to the finished and in-progress items, including design specifications, documentation, source code, installers and executables.

MNG-164 The CWE shall be capable of hosting televideo meetings, in which to make presentations and hold conferences, for NATO UNCLASSIFIED topics only.

MNG-165 The Contractor shall present a proposed design for the CWE no later than six weeks after Contract Award.

MNG-166 The Contractor shall populate and activate this website within eight weeks after the Contract Award, on the provision of NCIA Approval for CWE use for NATO UNCLASSIFIED data.

## 4 INTEGRATED PRODUCT SUPPORT

### 4.1 OVERVIEW

[119] This Section addresses the Integrated Product Support (IPS) requirements of the project. The purpose of this Section is to ensure that the Contractor uses sound best practices to plan, implement, integrate, continuously measure and fine tune the IPS activities, as well as to ensure timely and correct delivery of the project.

IPS-1 The Contractor’s internal Life Cycle Management (LCM) process and system shall comply with STANAG 4728 “System Life Cycle Management (SLCM)”.

- IPS-2 The Contractor shall manage the IPS activities within this Contract by:
- a. Providing evidence that the designed system solution is for a **service life of at least fifteenth (15) years** based on the operational conditions required through the development of the activities described in the Integrated Product Support Plan (IPSP) and the In Service Support Plan (ISSP) assuring and managing the supportability of the solution (i.e.: availability for supply of spare parts and/or the relevant repair services);
  - b. Providing evidence that for a period of at least five (5) years after successful completion of last batch’s Final System Acceptance (FSA) by the Purchaser, the system’s equipment shall not become obsolete and the Customer shall be able to obtain all necessary spare parts, components and technical expertise for planned routine maintenance and normal repair, following which it shall continue to meet the design performance parameters when operated under design conditions.
  - c. Appointing an IPS manager for the entire duration of the contract to conduct the IPS Programme that shall:
    - i. Be at a level commensurate with the systems engineering and the software engineering managers;
    - ii. Be point of contact to interface with the Purchaser on IPS matters;
  - d. Providing all relevant IPS deliverables (documents, data and activities) as a result of all IPS processes.
- IPS-3 The Contractor shall provide the required IPS deliveries detailing all aspects, structure and relevant content in accordance with the following schedule that shall be included in the contractor’s Project Master Schedule (PMS).

Table 6 – IPS Deliverables

IPS Deliveries	Issue	Due date
Integrated Product Support Plan (IPSP)	Draft	EDC + 2w
	Final Draft	PDR – 4w
	Final	CDR + 4w
Reliability Availability Maintainability Testability (RAMT) Case Report	Draft	SRR – 4w
	Final Draft	PDR – 4w
	Final	CDR – 4w
Failure Mode Effects and Criticality Analysis (FMECA)	Draft	SRR – 4w
	Final Draft	PDR – 4w
	Final	CDR – 4w



IPS Deliveries	Issue	Due date
Maintenance Task Analysis (MTA) [incl. Logistics Database]	Draft	PDR – 4w
	Final Draft	CDR – 4w
	Final	FAAT + 4w
Level of Repair Analysis (LORA) [incl. Repair Price List (RPL)]	Draft	PDR – 4w
	Final Draft	CDR – 4w
	Final	FAAT + 4w
Packaging, Handling, Storage and Transportation (PHST) Report	Draft	CDR – 4w
	Final	FAAT + 4w
Initial Provisioning List (IPL)	Draft	CDR - 4w
	Final	FAAT + 4w
Obsolescence Report	Draft	CDR – 4w
	Final Draft	FAAT + 4w
	Quarterly	First delivery at PSA + 3m
Warranty Report	Draft	FSA - 6m
	Quarterly	First delivery at FSA + 3m
Technical Publication Development Plan (TPDP)	Draft	CDR – 4w
	Final	CDR + 8w
User Manuals	Draft	CDR – 4w
	Final	FAAT + 4w
Maintenance Manuals	Draft	CDR – 4w
	Final	FAAT + 4w
Deployment Manuals	<del>Draft</del>	<del>CDR – 4w</del>
	Final	FAAT + 4w
Training Plan (TP) [incl. Training Needs Analysis (TNA)]	Draft	CDR – 4w
	Final Draft	CDR + 8w
	Final	Training Start – 4w
Training documentation	Draft	Training Start – 20w
	Final	Training Start – 4w
Training execution of Testing Personnel	Execution	Immediately before tests
Training execution of Operators (including reports)	Execution	FAAT + 8w
	Report	Training End + 4w
Training execution of Maintainers (including reports)	Execution	FAAT + 8w
	Report	Training End + 4w
Training execution of Instructors (including reports)	Execution	FAAT + 8w
	Report	Training End + 4w
In Service Support Plan (ISSP)	Draft	FSA - 6m
	Final	FSA + 6m
In Service Support (ISS) Monthly Report	Monthly	First delivery at Warranty End + 1m

IPS-4 The Contractor shall ensure that the Purchaser agrees with these deliverables and their deadlines by the end of Phase 2 at CDR.

## 4.2 INTEGRATED PRODUCT SUPPORT PLAN

[120] The Integrated Product Support Plan (IPSP) is the primary document that details the approach to IPS, tailored to meet the needs of a specific product or service. The IPSP includes detailed information for the planning, implementation and co-ordination of the IPS program, together with element plans detailing how the appropriate IPS elements are addressed. The IPSP is integrated and consistent with other program documentation. The IPSP is a living document and therefore the content will vary depending on the type and phase of any program or project.

IPS-5 The Contractor shall establish, provide, execute and maintain an effective **Integrated Product Support Plan (IPSP)** in accordance with ASD SX000i iss.2.0.

IPS-6 The IPSP shall:

- a. describe the Contractor's plans for the management control, interface, and integration of all elements of the Contractor's Integrated Product Support with the system engineering and design processes;
- b. establish/describe the policies, procedures, and methodologies to ensure the logistic requirements are achieved and to refine the support to the system;
- c. incorporate Purchaser-approved changes, additions and deletions.

IPS-7 The IPSP shall describe the Contractor's approach and plans for each of the following element:

- a. Reliability Availability Maintainability and Testability (RAMT) and Failure Mode Effect and Criticality Analysis (FMECA),
- b. Logistics Support Analysis (LSA) including Logistic Data and Database, Supply Support, Packaging Handling Storage and Transportation (PHST),
- c. Parts Obsolescence Management,
- d. Technical Publications,
- e. Training,
- f. Support during Warranty and Post Warranty.

IPS-8 The IPSP shall document the Contractor's plans, organizational structure, procedures and activities implemented, followed and performed to ensure that project and the product support elements influence and interface with system design and other functional areas, to satisfy supportability criteria.

IPS-9 The IPSP shall explain the interface of the Contractor's IPS structure and the overall design process with thier subcontractors, vendors and suppliers.

IPS-10 The IPSP shall include a schedule of the IPS Programme and a detailed description of the interaction of the IPS activities with the other activities performed.

IPS-11 The IPSP shall describe the Contractor's Maintenance and Support Concept that shall also describe the Maintenance and Support process interfaces to the other processes and shall refer to the functional and non-functional Requirements of the system to be fully cognisant to the direction and guidance provided in Maintenance and Support Concepts in Appendix D.

- IPS-12 The IPSP shall describe for each Maintenance Level and each Support Level, the Contractor’s Concept to meet the TDCIS system specifications at least in terms of: support environment, constraints, locations, procedures, artefacts, organisation and personnel requirements custom.
- IPS-13 The Contractor shall define the support process interfaces to the Purchaser’s existing and the Purchaser’s FMN Service Management Frameworks. This shall include the existing ITSM processes and tools and HL/SL 1/2 and HL/SL 3 escalations to build an interaction with Contractor’s support environment such as opening tickets, how and when to escalate, how to prioritise the incidents etc. This scope shall be shaped based on Purchaser feedback and review during the implementation period.
- IPS-14 The Contractor’s Support process interface definition shall include the input and output information, its structure, the communication path, POCs, the time constraints for sending and receiving information, and quality criteria to evaluate the integrity of the interface.
- IPS-15 The Contractor shall identify HW LRUs and FW/SW CSCIs down to the lowest level inside racks and transit cases. To this extent an entire transit cases shall not be identified as an LRU. LRUs inside transit cases shall be accessible and replaceable without requiring re-tempering.
- IPS-16 The Contractor shall provide the IPSP detailing the relevant content to cover the following structure.

Table 7 – IPSP Content and Structure

Structure	Content
1	Introduction
2	Documents and Acronyms
2.1	List of Applicable Documents
2.2	List of Reference Documents
2.3	List of Acronyms
3	System Overview
3.1	Architecture
3.2	Operational scenario
3.3	Maintenance Concept
3.4	Support Concept
4	IPS Management
4.1	IPS team and sub-Contractors
4.2	IPS processes and procedure overview
4.3	IPS constraints
4.4	IPS tools
4.5	IPS Contractual Deliverable Requirements List (CDRL)
5	System Breakdown
6	Reliability, Availability, Maintainability and Testability (RAMT) Plan
6.1	Reliability
6.2	Maintainability
6.3	Testability
6.4	Availability
6.5	Failure Mode Effects and Criticality Analysis (FMECA)
7	Logistics Support Analysis (LSA) Plan
7.1	Maintenance Concept
7.1.1	Preventive/Scheduled maintenance
7.1.2	Corrective/Unscheduled maintenance

Structure	Content
7.1.3	Hardware Maintenance Concept
7.1.4	Software Maintenance Concept
7.2	Maintenance Levels Description
7.3	Support Concept
7.4	Support Levels Description
7.5	Maintenance Task Analysis (MTA)
7.6	Level Of Repair Analysis (LORA)
7.7	LSA Database
8	Supply Support Plan
8.1	Manpower and personnel
8.2	Spare Parts
8.3	Tool and Test Equipment
8.4	Facilities
8.5	Packaging, Handling, Storage and Transportation (PHST)
8.5.1	Packing, Coding and Labelling (Packaging)
8.5.2	Delivery and Shipment (Handling and Storage)
8.5.3	Transportation
9	Parts Obsolescence Management
9.1	Evaluation criteria
9.2	Resolution strategies
10	Technical Publications
11	Training
12	In service Support (ISS)
12.1	Warranty period
12.2	Post Warranty period
12.2.1	Post Warranty Services (PWS): Repair On Need
12.2.2	Performance Based Services
12.3	Sub-Contractors

### 4.3 RELIABILITY, AVAILABILITY, MAINTENABILITY TESTABILITY CASE REPORT

IPS-17 The Contractor shall provide a Reliability Availability Maintainability Testability (RAMT) Case Report that shall include:

- a. All COTS equipment data sheets and references, clearly indicating the COTS equipment's reliability and maintainability characteristics used as data input to any of the RAMT activities;
- b. The complete set of Reliability Block Diagrams (RBDs), including reliability, maintainability and intrinsic availability allocations per block, per aggregated block, per sub-system, per location, and for the entire system;
- c. All draft and final calculations for (ref MIL-HDBK-338B):
  - i. Reliability (MTBF and MTBCF):
    - 1) Mean Time Between Failures (MTBF) shall represent the Basic Reliability, where 'failure' is understood to mean any condition in which an item, assembly, sub-system or the entire system is not operating according to specifications;
    - 2) Mean Time Between Critical Failures (MTBCF) shall represent the Mission Reliability, where 'critical failure' is understood to mean any condition in which the entire system is not operating according to specifications;

- ii. Maintainability (TTR, MTTR, MTTRS and MTBPM):
    - 1) Mean Time To Repair (MTTR) shall be calculated for all kind of failures (Critical and non critical) and shall include fault isolation, access, disassembly, remove and replace, reassembly, configuration, check-out and start-up, and to exclude administrative and logistics delay times;
    - 2) Mean Time to Restore the System (MTTRS) shall be calculated for critical failures only and shall include fault isolation, access, disassembly, remove and replace, reassembly, configuration, check-out and start-up, and to exclude administrative and logistics delay times;
  - iii. Testability: Fault Detection (FD) percentage and Fault Isolation (FI) percentage with and without ambiguity;
    - 1) Fault Detection (FD) shall be calculated to include Built-In Test (BIT) and/or Built-In Test Equipment (BITE) capable of on-line detection of failure modes (Fault Detection rate);
    - 2) Fault Isolation (FI) shall be calculated to include Built-In Test (BIT) and/or Built-In Test Equipment (BITE) capable to isolate the detected failure (Fault Isolation rates) with or without ambiguity rationale and justifications for all data and formulas used in any of the calculations and models;
  - iv. Intrinsic Availability (Ai);
  - d. Rationale and justifications for all data and formulas used in any of the calculations and models.
- IPS-18 The Contractor shall develop and maintain the Reliability Block Diagrams (RBDs) for the entire system and subsystems, relating all items (i.e. hardware down to LRU level and all software modules) based on failure dependencies, and explaining how the reliability of each item contributes to the success or failure of the entire system, in accordance with IEC 61078:2006 or MIL-STD-756B. Firmware shall be treated as being part of the pertinent LRU.
- IPS-19 The reliability predictions shall be in accordance with one of the following:
- a. Bellcore/Telcordia SR-332, Ground Fixed Uncontrolled, 30°C Case temperature;
  - b. HDBK-217Plus and ANSI VITA51, Ground Fixed, 30°C Case temperature;
  - c. Certified field data (scaling i.a.w. MIL-HDBK-338B table for Environment and Temperatures);
  - d. A combination of the above.
- IPS-20 The reliability predictions shall consider the System duty 100% (components de-rating and local duties may be applied).
- IPS-21 The Contractor shall plan, design and execute on-site Reliability tests in accordance with MIL-HDBK-781 to demonstrate the MTBF relevant requirement in the SRS with 90% (ninety percent) confidence (10% Consumer's risk).
- IPS-22 The Contractor shall propose a test plan and procedure indicating the minimum number of testing hours based on the cumulative failures as per Chi-Squared test matching the above criteria. The test hours shall be distributed on all the systems with a minimum testing time of 1000 hours per system.

- IPS-23 The Contractor shall plan, design and execute the system maintainability/testability demonstration in accordance with IEC 60706-3:2006 test method 1 Annex B or MIL-HDBK-470A Annex B (test plan 1A).
- IPS-24 The Contractor shall ensure that the maintainability/testability demonstration addresses both software and hardware maintenance tasks.
- IPS-25 The Contractor shall demonstrate the MTTR requirement in the SRS by providing 90% (ninety percent) confidence.
- IPS-26 The Contractor shall demonstrate system diagnostic capability (fault detection and isolation) in accordance with the relevant requirements set in the SRS.
- IPS-27 The Contractor shall provide the RAMT Case Report detailing the relevant content to cover the following structure.

Table 8 – RAMT Case Report Content and Structure

Structure	Content
1	Introduction
2	Documents and Acronyms
2.1	List of Applicable Documents
2.2	List of Reference Documents
2.3	List of Acronyms
3	System Breakdown Description
4	Design for Reliability
4.1	Reliability Prediction Formulas
4.2	Reliability Block Diagram
4.3	Reliability Prediction
5	Design For Maintainability
5.1	Maintainability Prediction Formulas
5.2	Maintainability Prediction
6	Design For Testability
6.1	Testability Prediction Formulas
6.2	Testability Prediction
7	Availability
8	Conclusions

- IPS-28 The Contractor shall provide one .xls spreadsheet as annex of the RAMT Case Report in accordance with the following content and structure:
  - a. Product Breakdown: Level, Description, Cage Code, Part Number, Quantity;
  - b. Reliability: Critical item (Y/N), Source data (Calculated / Predicted / Estimated / Contractor evidence), Failure rate (fpmh), MTBF (h), Redundancy model, MTBCF(h);
  - c. Maintainability: TTR (h), MTTR (h), MTTRS (h), MTBPM (h), Mpt (h);
  - d. Product Breakdown: Level, Description, Cage Code, Part Number, Quantity;
  - e. Testability: Fault detection (FD%), Fault Isolation [FI(1LRU)%, FI(2LRU)%, FI(3LRU)%, FI(>3LRU)%].

#### 4.4 FAILURE MODE EFFECT & CRITICALITY ANALYSIS

- IPS-29 The Contractor shall provide a **Failure Mode Effect and Criticality Analysis (FMECA)** down to the hardware LRU and firmware/software CSCI level in accordance with IEC 60812:2018 or MIL-STD-1629A.

- IPS-30 The Contractor shall provide functional descriptions for the systems and allocated to the subsystems, covering all operational modes and mission phases.
- IPS-31 The Contractor shall perform a functional FMECA considering the effects of failure of hardware LRU and firmware/software CSCI level directly to the functions that shall be lost or degraded.
- IPS-32 The Contractor shall identify critical items as the items (hardware LRU and firmware/software CSCI) whose failure induce loss of critical function.
- IPS-33 In case of catastrophic and/or safety critical failures have been identified through the FMECA, the Contractor shall perform a **Fault Tree Analysis (FTA)** down to the SRU or CSC level as appropriate for development items in accordance with MIL-HDBK-338B.
- IPS-34 The Contractor shall provide FMECA detailing the relevant content to cover the following structure.

Table 9 – FMECA Content and Structure

Structure	Content
1	Introduction
2	Documents and Acronyms
2.1	List of Applicable Documents
2.2	List of Reference Documents
2.3	List of Acronyms
3	System Breakdown Description
4	FMECA Procedures
5	Failure Mode Effects Analysis (FMEA)
6	Criticality Analysis (CA)
7	Criticality Matrix (CM)
8	Conclusions

- IPS-35 The Contractor shall provide one .xls spreadsheet as annex of the FMECA in accordance with the following content and structure:
  - a. Product Breakdown: Level, Description, Cage Code, Part Number;
  - b. Failure Mode Effects Analysis (FMEA): Failure Modes, Mission Phase / Operational Mode, Failure effects (Local Effects, Next Higher Level, End Effect), Failure Detection Method, Compensating Provisions, Severity Classification, Remarks;
  - c. Criticality Analysis (CA): Failure probability, Failure Effect Probability ( $\beta$ ), Failure Mode Ratio ( $\alpha$ ), Failure Rate ( $\lambda p$ ), Operating Time (t), Failure Mode Crit Number [ $C_m = \beta \alpha \lambda p t$ ], Item Crit Number [ $C_r = \sum(C_m)$ ], Remarks;
- IPS-36 The Contractor shall also provide Criticality Matrix (CM) summary tables for:
  - a. Criticality vs Failure probability vs Severity classification;
  - b. Apportionment of criticality vs Failure end effect;
  - c. Apportionment of criticality vs Manufacturer (Cage Code).

#### 4.5 MAINTENANCE TASK ANALYSIS

- IPS-37 The Contractor shall provide a **Maintenance Task Analysis (MTA)** down to the hardware LRU and firmware/software CSCI level compliant with ASD S3000L iss.1.1.

- IPS-38 The Contractor shall provide the MTA, covering hardware and software, that summarises the maintenance planning:
- a. Analysing the results of the FMECA to identify candidate corrective maintenance tasks;
  - b. Identifying procedures, spares and materials, tools, support equipment, personnel skill levels, estimated and elapsed times as well as any facility issues that must be considered for a maintenance task;
  - c. Identifying scheduled maintenance tasks and develop a scheduled maintenance programme at each Level of Maintenance (HL/SL 1-4) allocated to the appropriate Level of Support (LoS 1 to 4) for the TDCIS systems, that is consistent with the maintenance concept described for the intended use of the system. The decision logic used for task selection shall implement the following priorities:
    - i. Avoidance of safety and mission critical failures;
    - ii. Achievement of system availability requirements;
    - iii. Sustainability of deployed operations in accordance with the intended use and the logistics support environment of the system;
    - iv. Minimization of Life Cycle Cost;
  - d. Identifying the operation support tasks required to support operational readiness of the system;
  - e. Assessing for each maintenance task: skill levels, tools and test equipment required, facilities, spares and consumables, duration.
- IPS-39 The Contractor shall provide the MTA detailing the relevant content to cover the following structure.

Table 10 – MTA Content and Structure

Structure	Content
1	Introduction
2	Documents and Acronyms
2.1	List of Applicable Documents
2.2	List of Reference Documents
2.3	List of Acronyms
3	System Breakdown Description
4	MTA Approach
4.1	Levels of Maintenance
4.1.1	Hardware Levels of Maintenance
4.1.1.1	HL1
4.1.1.2	HL2
4.1.1.3	HL3
4.1.1.4	HL4
4.1.2	Software Levels of Maintenance
4.1.2.1	SL1
4.1.2.2	SL2
4.1.2.3	SL3
4.1.2.4	SL4
4.2	Task Justification
4.3	Task Structure
4.3.1	Unscheduled and Corrective Maintenance Task structure



Structure	Content
4.3.2	Scheduled and Preventive Maintenance Task structure
4.4	MTA Data Element
5	MTA Output
6	Conclusions

IPS-40 The MTA shall provide spreadsheet as an annex with the following tables in:

- a. Logistic Breakdown Report – LBR : worksheet that hierarchically list the logistic breakdown and the link with the PBL containing at least the following information: Indenture level, Breakdown Element Identifier, Cage code, Part Number, Breakdown Element Name, Part as Designed Name, SMR Code, Qty, Qty for End Item, Unit of Measure (UM), MTBF, UM, MTTR, UM;
- b. Maintenance Index Report – MIR : worksheet that list all maintenance (scheduled and unscheduled) containing at least the following information: Indenture level, Breakdown Element Identifier, Cage code, Part Number, Breakdown Element Name, Part as Designed Name, SMR Code, Task Identifier, Task Name, Type, Task Frequency, UM, Task Duration, UM, MTBF, UM, MTTR, UM, Task Labour Time, UM;
- c. Maintenance Report – MR : worksheet that details all maintenance (scheduled and unscheduled) including all resources details (materials, personnel, facilities) with subtasks and duration details per skill and per subtask;
- d. Material Resource Report – MRR : shall include the following vistas:
  - i. Material Resource List : the list of all the resources with associated type (e.g.: spare, consumable, common tools, special tools);
  - ii. Material Resource Utilization: the list of all the resources with associated maintenance where the resource is used;
  - iii. Material Resource Annual Use: the list of all the resources with the calculated annual use based on the task frequency.
- e. Personnel Report – PR : shall include the following vistas (same as MRR but for personnel): Personnel List, Personnel Utilization, Personnel Annual Use;
- f. Facilities Report – FR : shall include the following vistas (same as MRR but for facilities): Facilities List, Facilities Utilization, Facilities Annual Use.

IPS-41 The MTA shall also provide summary tables for:

- a. Total Quantity of Maintenance Tasks as per Table 11.

Table 11 – Total Quantity of Maintenance Tasks

Level of maintenance	Scheduled			Unscheduled			Total		
	HW	SW	Sum	HW	SW	Sum	HW	SW	Sum
HL1/SL1									
HL2/SL2									
HL3/SL3									
HL4/SL4									
Total									

- b. Mean Annual Downtime and Mean Annual Workload as per Table 12 (noting that one table for HW+SW Maintenance, one table for HW Maintenance, and one table for SW Maintenance).

Table 12 – Maintenance Downtime and Workload

Level of maintenance	Scheduled		Unscheduled		Total	
	Elapsed time (h)	Man workload (h)	Elapsed time (h)	Man workload (h)	Elapsed time (h)	Man workload (h)
HL1/SL1						
HL2/SL2						
HL3/SL3						
HL4/SL4						
Total						

- c. Scheduled maintenance grouped by periodicity using as many columns as periodicity defined; see Table 13, (noting that one table for HW+SW maintenance, one table for HW maintenance, and one table for SW maintenance).

Table 13 – Scheduled Maintenance Record

Level of maintenance	(e.g.: daily)					...
	Quantity	Mean elapsed time (h)	Mean man workload (h)	Total elapsed time (h)	Total man hours (h)	
HL1/SL1						
HL2/SL2						
HL3/SL3						
HL4/SL4						
Total						

- IPS-42 The Contractor shall provide a Logistics Database in .xls that shall match the PBL and shall include information fields required for each HW and SW (including Firmware) item to be provided/updated:
- a. **Indenture level:** Level of indenture starting from the system that is the first level and classified as End Item;
  - b. **Breakdown Element Identifier (BEI):** String of characters used to uniquely identify a Breakdown Element and to differentiate it from other Breakdown Elements that comprise a product. Note: used to establish a hierarchical structure of the technical system;
  - c. Reference Designator;
  - d. Subsystem;
  - e. **Breakdown Element Name:** Word or phrase by which the breakdown element is known and can be easily referenced;
  - f. **Part Logistic Category;** these identifications can be used to define an item (HW or SW) as designed in the context of product support:
    - i. EI - End Item and SS – System Subsystem;
    - ii. Hardware (HW) Maintenance Significant Items (MSI):

- 1) LS - Statistical Life LRUs (e.g.: Computers, Power PCs, Switches, Routers, IF modules, RF modules, Breakers, Power Supplies, Monitors, Modems, Power Amplifiers);
- 2) LL – Limited Life LRUs (e.g.: Batteries, flexible waveguides, oscillators);
- 3) II – Insurance Items [e.g.: docking stations, Keyboards, Mice, Cables, mechanical parts (e.g. Racks, drawers), simple E/M parts (e.g. patch panels)];
- 4) C[T] – Technical Consumables (e.g.: fuse, gas discharger, surge protection devices, lamps, bulbs, led);
- 5) C[NT] – Non-Technical Consumables [e.g.: POL (Petrol, Oils, Lubricants), water, gas];
- 6) C[G] – Generic Consumables (e.g.: printer cartridges, toners, printers' paper);
- 7) AP – Attaching Parts [e.g.: washers, gaskets (not EMI), nuts, bolts, screws].

g. Software (SW):

- 1) SWA – Application Software [e.g.: Contractors' developed application SW, COTS application SW (e.g. MS Office, Adobe Acrobat)];
- 2) SWO – Software Operating Systems (e.g.: Linux, Unix, MS Windows, LynxOS, Android, IOS);
- 3) FW – Firmware;
- 4) DD – Device drivers.

h. **Support equipment and tools:** CHT (Common Hand Tool), CSE (Common Support Equipment), PSE (Peculiar Support Equipment);

i. Manufacturer item data: Cage Code, Part Number, Part Nomenclature;

j. Vendor/Contractor item data: Cage Code, Part Number, Part Nomenclature;

k. Item characteristics:

- i. LRU (Y/N), Serialized Item (Y/N);
- ii. Mean Time Between Failure (MTBF) (in hours);
- iii. Mean Time To Repair (MTTR) (in hours);
- iv. LRU Maintenance Level (HL/SL 1 to 3 included);
- v. HW part repairability (Y/N);
- vi. NATO Stock Number (NSN);
- vii. Unit Price and Currency;
- viii. Provisioning Lead Time (PLT) (days);
- ix. Turn Around Time (TAT) (days).

l. **Quantity:** Qty per line item; Qty in Next Higher Assy; Qty in End item.

IPS-43 The Contractor shall provide a **Logistics Database** as an annex to each issue of the MTA down to the hardware LRU and firmware/software CSCI level that shall match the Product Baseline (PBL), shall be coherent with the relevant information

contained in the Technical Publications and Training Materials and shall be fully compliant with ASD S3000L iss.1.1 as per the NCIA instructions.

IPS-44 The Logistics Database shall contain and collect all relevant information coming from the IPS reports and analysis coming from RAMT, FMECA, MTA, LORA and PHST.

#### 4.6 LEVEL OF REPAIR ANALYSIS

IPS-45 The Contractor shall provide a **Level Of Repair Analysis (LORA)** down to the hardware LRU and firmware/software CSCI level compliant with ASD S3000L iss.1.1.

IPS-46 The Contractor shall provide the LORA to recommend the most cost efficient solution for the maintenance level at which each maintenance task should be performed and the decision to repair or discard unserviceable LRUs:

- a. Generating a LORA candidate list containing those items whose maintenance task is not clearly allocated as NATO Maintenance Task (NMT) or Industry Maintenance Task (IMT) as a consequence of the MTA and for which a repair/discard decision is not immediately evident;
- b. Determining the level (HL1-4 or SL1-4) and the location at which each maintenance task should be performed, including detail on any NMT for which specific limited support by industry personnel is recommended.

IPS-47 The Contractor shall provide the LORA detailing the relevant content to cover the following structure.

Table 14 - LORA Content and Structure

Structure	Content
1	Introduction
2	Documents and Acronyms
2.1	List of Applicable Documents
2.2	List of Reference Documents
2.3	List of Acronyms
3	System Breakdown Description
4	LORA Approach
4.1	LORA Candidate Item List (CIL)
4.2	Repair vs Discard Decision
4.3	Maintenance concept
4.4	Support concept
4.5	Logistics Support Scenario (Maintenance and support concept relations)
4.6	LORA CIL Fields
5	Conclusions

IPS-48 The Contractor shall provide a **Repair Price List (RPL)** as an annex to the final issue of the LORA.

#### 4.7 OBSOLESCENCE REPORT

IPS-49 The Contractor shall perform the Parts Obsolescence Management during the project execution up to the end of warranty period providing **Obsolescence Report** for hardware LRU and firmware/software CSCI to keep the Purchaser informed about any potential obsolescence problems or risks providing the end of sale, end of production, end of support, risk mitigation strategies and proposed risk recovery actions.

- IPS-50 The Contractor shall recommend, as part of the Obsolescence Report:
- a. A replacement (if available), when the designation of a replacement item becomes necessary due to discontinuance of support;
  - b. Either to implement an Off-The-Shelf (OTS) solution and modify the requirement accordingly or redesign a suitable alternative, when the recommended OTS item is not fully compliant with the Contract Requirements;
  - c. Items with form, fit and function features will be given first preference to avoid development costs.
- IPS-51 The Contractor shall provide a Obsolescence Report jointly with an .xls file that shall include information fields required for each hardware LRU and firmware/software CSCI to be provided/updated:
- a. **Breakdown Element Name:** Word or phrase by which the breakdown element is known and can be easily referenced;
  - b. **Manufacturer item data:** Cage Code, Part Number, Part Nomenclature;
  - c. **Vendor/Contractor item data:** Cage Code, Part Number, Part Nomenclature;
  - d. **Quantity:** Qty in End item;
  - e. **Product current status:** Cancelled without alternative Form Fit and Function (FFF) replacement, Off production but on the stock (last buy), On production, Cancelled with alternative FFF replacement;
  - f. Product current status rationale/evidences:
    - i. for HW [e.g.: production started in "year", last update in "year", support availability till "year" or End of life date (if any)]
    - ii. for SW (e.g.: release date of the item, support of this version till "year")
  - g. Warranty and Service:
    - i. for HW (e.g.: warranty duration granted when procured, Provisioning Lead Time, Repair cycle time)
    - ii. for SW (e.g.: software community (shareware/freeware), open source, ...)
  - h. **Risk - Item criticality:** This risk category addresses the degree to which an item (whether or not it is an assembly or a component used to repair an assembly) is critical to the functionality of the system and ultimately the operational readiness of the unit employing that system. (e.g.: from FMECA criticalities 2 - red, 3 - yellow, 4 - green). Please note that FMECA criticality 1 shall require Fault Tree Analysis;
  - i. **Risk - Supply chain vulnerability:** This risk category represents a key difference between electronic items and Materials and Structural, Mechanical and Electrical (MaSME) items
  - j. Electronic items: often becomes obsolete because of technology changes (e.g.: red, yellow, green);
  - k. MaSME items: obsolescence is usually related to a source going out of business or changing its product line (e.g.: red, yellow, green).
-

- l. **Risk - Time to implement a resolution:** This risk category addresses how long it will take to implement a resolution to an Obsolescence issue for an item or material in comparison to the stocks that the program has on hand. If there is more than enough stock on hand and the time to implement is short, then the risk to the program would be viewed as lower; however, if there is a long lead time to implement a resolution and the stocks on hand are not sufficient, then this indicates high risk. (e.g.: red, yellow, green);
- m. **Risk category rationale/evidences:** Narrative for each risk category rank;
- n. **Risk Level:** product of the above risk ranks;
- o. **Proposed mitigation:** FFF alternative (ECP type 1), Function alternative (ECP type 2), Redesign of higher level, To Be Defined, Not Applicable, Other;
- p. **Proposed mitigation rationale:** Narrative for the proposed mitigation.

#### 4.8 SUPPLY, SUPPORT & PROVISIONING

- IPS-52 The Contractor shall ensure a minimum stock of the most critical spare parts (those failing the most, or with a higher impact on the facilities) necessary for emergency and urgent repairs tasks up to the end of warranty.
- IPS-53 The Contractor shall provide, as part of the bid, the budget quotation for the spares parts (LRUs, Insurance Items), technical and non-technical consumables to be provided four (4) working weeks before the PSA in accordance with the requirements outlined below.
- IPS-54 The Contractor shall provide **Initial Provisioning List (IPL)** that shall detail the rationale and calculations, in accordance with IEC 62550:2017 or equivalent, for determining the range and quantity of items (i.e., spares and repair parts, consumables, special tools, test equipment, and support equipment) and the associated lists required to support and maintain the system for an initial period of service as per the following:
- 60-day Closed-Door-Operation (CDO) in 24/7 continuous operation;
  - 1-year logistic horizon in 24/7/365 continuous operation;
  - Both with the 98% confidence level (non stock-out probability) of being able to replace any mission critical Maintenance Significant Item (MSI).
- IPS-55 The Contractor shall provide a fully detailed and priced **Recommended Spare Parts List (RSPL)** as annex to each issue of the IPL that shall detail all spares in a hierarchical breakdown including as a minimum the information of the table below for MDS.
- IPS-56 The Contractor shall provide a fully detailed and priced **Recommended Consumable Items List (RCIL)** as annex to each issue of the IPL that shall detail all consumables including as a minimum the information of the table below for MDS.
- IPS-57 The Contractor shall provide a fully detailed and priced **Recommended Tools and Test Equipment List (RTTL)** as annex to each issue of the IPL that shall detail all standard and special-to-type tools, test equipment and test fixtures, cables, connectors, support equipment (e.g. cranes, lifting platforms, etc.) including as a minimum the information of the table below for MDS.

- IPS-58 The Contractor shall provide the **Bill of Materiel (BoM)** as annex to each issue of the IPL for all the system according to the Product Baseline (PBL).
- IPS-59 The Contractor shall provide, as per Table 15, the full and complete Inventory/**Material Data Sheet (MDS)** of all items and documents to be delivered under this contract at least ten (10) working days before shipment. It shall contain the following information:

Table 15 - Inventory/Material Data Sheet information

Field	Description
CLIN	Contract Line Item Number (number-10 digits maximum). Sequence number assigned to a particular line item in a given contract. The combination CLIN-Contract No. shall always be unique.
Nomenclature	Short Item Description (text- 35 digits). Should always start with the main item name followed if possible by a technical specification, followed by the next higher assembly names in hierarchical order, separated by commas. E.g. for a coax connector of a television cable the nomenclature should read: CONNECTOR, COAX, CABLE, TELEVISION.
EQRE (XB/ND)	Code (text-2 digits). Defines whether an item is repairable (ND) or not (XB) from a technical point of view.
True Manufacturer Part Number	True Manufacturer P/N (text-32 digits). Part Number given to this item by the original manufacturer.
True Manufacturer Code (or complete name and address)	True Manufacturer Code (text-5 digits). Code of the Company that has manufactured this item. This is an internationally recognised 5-digit code which is unique to that company. It corresponds to the "cage code" in the USA. Manufacturer Codes and Cage Codes are obtainable from the national governmental authorities or, if it already exists, from the "NATO Master Cross-Reference List" (NMCRL) obtainable from NSPA. In case the code cannot be obtained, it will be sufficient to enter the complete name and address information of the true manufacturer.
Vendor/Contractor Code (or complete name and address)	Vendor (Contractor) (text-5 digits). Company which sells the item or the complete system to which this item belongs. The vendor is the company with which the contract is placed but is not necessarily the true manufacturer of the item. If the vendor company has also designed and integrated the complete system it is also known as Original Equipment Manufacturer (OEM). The company code is an internationally recognised 5-digit code which is unique to that company. It corresponds to the "cage code" in the USA. Manufacturer Codes and Cage Codes are obtainable from the national governmental authorities or, if it already exists, from the "NATO Master Cross-Reference List" (NMCRL) obtainable from NSPA. In case the code cannot be obtained, it will be sufficient to enter the complete name and address information.
Vendor/Contractor Part Number	Vendor (Contractor) P/N (text-32 digits). Part Number given to this item by the company which sells the item or the complete system to which this item belongs. The vendor is the company with which the contract is placed but is not necessarily the true manufacturer of the item.
QTY ordered	Item Quantity (number-5 digits). Shows the quantity of this item ordered as individual item in this contract, i.e. if it is not delivered built-in in another unit.  In case the item is not ordered as individual item or as spare unit but is built-in in another assembly, enter "0" (zero) in this field and complete fields: "Part Number of next higher assembly" and "qty in next higher assembly".  Serialized items shall only have a quantity of 1.
Order Unit	Order Unit (text-2 digits). Unit under which the item is sold, e.g. each, set, meter, etc.
Serialized Item Tag	Serialized Items Tag (text-1 digit). Add a "Y" if the item carries a serial number independently whether serial numbers is already known or not. If known, complete column "Serial Number".
Serial Number	Serial Number. If Serialized Item Tag is "Y" (yes) then add serial number here. (1 serial number per line). If system is already installed, then the Contractor shall indicate here the serial numbers installed at user site. For items to be delivered to depots the Contractor may not know the serial number in advance, in that case it will be completed by the receiving site.
Serial Number Software Revision Level	Software Revision Level (text- 30 digits but can be expanded as necessary) If item carries a serial number and field "serial number" is completed, add SW revision level / version here if appropriate.
Serial Number Hardware Revision Level	Hardware Revision Level (text- 30 digits but can be expanded as necessary) If item carries a serial number and field "serial number" is completed, add HW revision level / version here if appropriate.

Field	Description
Other Serial Number attributes	Other Serial Number Attributes (text-to be defined). This field will be used and defined on a case by case basis to be decided by NCIA System Manager, NCIA and the Contractor for other attributes which might be required for a particular system.
Subject to Property Accounting	NDSS-MRCS (text-1 digit). NCIA will decide whether or not item is subject to property accounting and is to appear on the customer balance lists. This field will be completed Y or N by NCIA.
Currency	Currency (text-3 digits). International 3-digit code (ISO) representing the currency in which the item purchase price (or the estimated value) is expressed.
Price	Item Price (number-11 digits). Unit price with 2 decimals.
Warranty Expiration Date	Warranty Expiration Date (date: DD/MM/YY). Shows the date on which the warranty of this item expires, which is usually N days after delivery of the item. If delivery is scheduled for a certain date, warranty expiration date = delivery date + warranty period in days.
Receiving / Inspection Depot	Receiving / Inspection Depot (TXT-2 digits). Information will be provided to Contractor by the Purchaser's ILS Officer. This is the depot to where the vendor ships the material. Normally this depot will receive, inspect and put the material in stock against Dues-In to be created in accordance with Qty in column "Qty Ordered". In case of a deviation from this rule, the Purchaser will inform the Contractor of the correct final Depot and through which depot the items shall have to transit.
Issue to customer	Customer Code (text-4 digits - to be completed by NCIA). Code representing the customer to which the item(s) shall be shipped by the receiving/ inspecting depot.
Extended Line Item Description	Extended Line Item Description (text-no limit). Any additional information concerning this item shall be entered here, e.g. technical specifications, configuration, reference to technical drawings or manuals etc....
Part Number of next higher assembly	Part-Number of Next Higher Assembly (text-32 digits) If item is built-in another assembly, indicate part number of that assembly here.
Qty in next higher assembly	Quantity in Next Higher Assembly (number-3 digits max). This field shows the built-in quantity of the item in the next higher assembly. This information shall be provided for configuration control purposes.
Qty installed at Operating Unit (Customer Site)	Quantity installed. This field is only applicable when the delivery is direct to an operating unit (customer site). However in that case it is mandatory. For non-serial ised items it shows total quantity installed. For serial ised items quantity shall only be one per serial number. Use a new line for each serial number.

IPS-60 The Contractor shall provide a detailed **Software Distribution List (SWDL)** as annex to each issue of the IPL, which shall detail comprehensively all Computer Software Configuration Items (CSCI) and associated software, firmware or feature/performance licenses provided under this Contract. The SWDL shall include, the following data elements:

- a. CSCI identification number;
- b. nomenclature;
- c. version number;
- d. license key (if applicable);
- e. license renewal date (if applicable);
- f. warranty expiration date;
- g. date of distribution;
- h. distribution location (geographically);
- i. distribution target (server); and
- j. Owner.

IPS-61 The Contractor shall make sure that all licenses are originally registered with the Customer as end-user.



**4.9 PACKAGING, HANDLING, STORAGE & TRANSPORTATION**

- IPS-62 The Contractor shall provide a Packaging, Handling, Storage and Transportation (PHST) Report down to the hardware LRU.
- IPS-63 The Contractor shall provide the PHST Report that summar ises how the following relevant requirements are fulfilled, needs for special packaging, dimensions of the items and facilities required for storage.

**4.9.1 PACKING, CODING AND PACKAGE LABELLING (PACKAGING)**

- IPS-64 The Contractor shall provide all supplies packaged to withstand the shipping hazards applicable to the chosen mode of transportation.
- IPS-65 The Contractor shall provide any Special To Type (non-commercial) packaging materials required for the shipment of items at no extra cost to the Purchaser.
- IPS-66 The Contractor shall package, crate or otherwise prepare items in accordance with best commercial practices considering the destination and the mode of transportation. Any Special To Type (non-commercial) packaging will be retained by the Purchaser for return of the items under Warranty if necessary.
- IPS-67 The Contractor shall mark the packages, palletes and/or containers in which supplies are transported shall, in addition to normal mercantile marking, showing on a separate nameplate the name of this project, contract number and shipping address and clearly marked with the text "NATO PROPERTY".
- IPS-68 The Contractor shall provide a **Packing List** for each consignment to allow for easy identification of the content of each package:
  - a. One Packing List shall be affixed to the exterior of the consignment in a sealed, weatherproof envelope on the outside of each box, palette and/ or container
  - b. A second copy shall be put inside each container/box.
  - c. A third copy should be emailed to the Purchaser PoC upon departure of the goods.
  - d. The Packing List shall contain the information held in Table 16.

Table 16 - Packing List

Serial	Requirement
1	The shipping Address
2	Package number of number of packages
3	Contract Number
4	CLIN Number as per Schedule of Supply and Services
5	Item Description
6	Part Number
7	Serial Number
8	Quantity
9	Weight and Volume details
10	Box number and number of boxes in the consignment

Serial	Requirement
11	Name and address of the Contractor, Purchaser and Consignor
12	Values of the goods

- IPS-69 The Contractor shall provide the details of the labelling approach in the CM Plan for Purchaser approval. The Contractor shall provide its labelling for the items that are configured and/or modified after procurement from the OEM. For these items, the Contractor shall provide for review and approval before the start of the labelling activities, the format and content of the labelling. Labels shall:
- IPS-70 At least contain the Contractor/OEM's name, identification, part number and serial number to ensure proper and quick identification of equipment down to the LRU level;
- IPS-71 Additional labels shall be provided for equipment inside transport cases where necessary, these additional labels shall be applied to the outside of the transport case or to the inside of the removable case lid. Alternatively, laminated pack-out lists may be supplied with transport cases, instead of the additional labels;
- IPS-72 Be accomplished in a manner that will not adversely affect the life and utility of the assembly or module. Whenever practicable, the label shall be located in such a manner as to allow it to be visible after installation;
- IPS-73 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;
- IPS-74 Be capable of withstanding the same environment tests required of the part and any other tests specified for the label itself. When possible, letters, numerals, and other characters shall be of such a size as to be clearly legible;
- IPS-75 Be in the UK English language.
- IPS-76 The Contractor shall deliver all the equipment labels including a machine-readable code (e.g. barcode) compliant with:
- STANAG 4281 (AAITP-05) : NATO Standard Marking for Shipment and Storage
  - STANAG 4329 (AAITP-09) : NATO Standard Bar Code Handbook.
  - ACodP-1 : NATO Manual on Codification
- IPS-77 The Contractor shall provide the details of the labelling approach in the CM Plan for Purchaser approval. The Contractor shall provide its labelling for the items that are configured and/or modified after procurement from the OEM. For these items, the Contractor shall assign a P/N for that specific configuration. The format and content of the labelling shall be provided to the Purchaser for review and approval before the start of the labelling activities
- IPS-78 Nameplates shall be attached to all major units of the system. Nameplates shall be in the English language with non-erasable letters/ numbers, clearly identifying the unit (unit designator); location code; as well as the Contractor or OEM CAGE code, part number and serial number. These plates shall be properly attached in a prominent position on each major unit to enable reading and control with easy access when installed. For the items requiring special handling and/or lifting up with additional tools due to heavy weight or high volume (dimensions), special plates including the weight, dimensions and lifting points information shall be provided on the items. Also these items shall have the adequate provisioning points to enable such special handling and lifting conditions.

- IPS-79 The Contractor shall utilize these machine readable codes during the project to ensure that the following activities are carried out as efficiently as possible:
- i. inventory checking;
  - ii. codification, when required;
  - iii. configuration auditing;
  - iv. equipment PHS&T;
  - v. equipment delivery, placement and acceptance;
  - vi. Maintenance.
- IPS-80 The labels shall enable positive identification of assemblies and modules upon removal for maintenance purposes and to prevent loss of utilization of items that have been separated from their original packages or containers.
- IPS-81 Labelling shall be accomplished in a manner that will not adversely affect the life and utility of the assembly or module.
- IPS-82 The Contractor shall deliver the transport boxes with the graphical depiction and the list of the contents attached to the inside of the transport case lid.
- IPS-83 The Contractor shall provide adequate identification for the Non-CIS components as well as the CIS components. This shall entail the labelling for the transit and transport cases, marking of the tents, nameplates on the containers etc

#### **4.9.2 DELIVERY AND SHIPMENT (HANDLING AND STORAGE)**

- [121] The shipping address where all items, including goods exchanged or repaired under warranty, shall be delivered by default is:
- Unidade de Apoio Geral de Material do Exército (UAGME)  
Estrada do Infantado  
2890-403 Benavente  
Portugal
- [122] The Purchaser Point of Contact (PoC) for issues related to shipment by default is:
- Andrew Fleming (Project Manager)  
NATO Communication and Information Agency,  
Network Services and IT Infrastructure Service Line  
Operational CIS  
Tel: +32 2360 5189  
[andrew.fleming@ncia.nato.int](mailto:andrew.fleming@ncia.nato.int)
- [123] The Purchaser's PoC and/or PoC of the Customer will inspect all packages, boxes and containers at final destination to ensure that no damage has occurred during transport and that all packages, boxes and containers detailed in the Packing List have been accounted for. The Purchaser will not open any packages, boxes or containers.
- [124] The system may be deployed at locations where there are no roads or other areas which are not easily accessible. Therefore there will be no forklift trucks or other lifting equipment to handle the transit cases. In such circumstances material

handling equipment is needed to dismount the equipment from the vans and to take them to the end locations where they will be set up.

[125] The request for a Custom Form 302 shall be addressed to:

Cameron Fraser-Shaw  
 NATO Communication and Information Agency,  
 Acquisition / Integrated Product Support  
 NATO HQ, B-1110 Brussels, Belgium  
 Tel: +32 2 708212  
[Cameron.Fraser-Shaw@ncia.nato.int](mailto:Cameron.Fraser-Shaw@ncia.nato.int)

[126] Following receipt of the request by the Purchaser, normally a maximum of three working days are required for the issue of the form.

[127] Load planning is a critical exercise to ensure the equipment can be dis-assembled, packaged, loaded, transported and re-assembled at the end location with minimal damage and minimal effort.

IPS-84 The Contractor shall deliver all equipment under this project in close coordination with the NCI Agency PoC at final destination.

IPS-85 The Contractor shall deliver equipment pre-configured and adequately packaged on Euro pallets.

IPS-86 The Contractor shall ensure secure fixation of pallets, cases and equipment during transportation.

IPS-87 The Contractor shall notify all deliveries through issuing of a **Notice of Shipment** to the Purchaser's PoC, at least 10 working days in advance of each shipment with the information seen in Table 17.

Table 17 – Notice of Shipment

Serial	Requirement
1	Purchaser Contract Number
2	Contract line Item Number (CLIN), designation and quantities
3	Destination
4	Number and gross weight
5	Consignor's and Consignee's name and address
6	Method of shipment, e.g., road, air sea, etc.
7	Date of shipment
8	Number of the Custom Form 302 used

IPS-88 The Notice of Shipment shall be accompanied by the relevant Packing List and the request for a Custom Form 302.

IPS-89 The Contractor shall take back and replace any damaged items, and correct any discrepancies with the packing and inventory lists, at no additional cost to the Purchaser and, or the Customer, without delay to the project.

IPS-90 The Contractor shall be responsible for the availability of proper storage space and availability of Material handling equipment that may be required for the equipment shipped to the destination/location. The Purchaser cannot be held responsible for any delays in implementation in the case of unavailability of facilities or materials, and the Contractor shall be solely responsible to acquire alternative facilities/material to assure proper storage, handling etc.

- IPS-91 The Contractor shall ensure that all required forms and certificates are provided and that all necessary procedures are followed for dangerous goods and goods requiring export licenses.
- IPS-92 The Contractor shall record all deliveries of equipment in the NCI Agency ITSM (IT Service Management) ticket system (for tracking by the Operations Centre).
- IPS-93 The Contractor shall make sure that all licenses are originally registered with the Customer as end-user.
- IPS-94 The Contractor shall provide material handling equipment that shall allow the transport of the system over rough terrain. This is especially important for the heavy transit cases.
- [128] Load planning is a critical exercise to ensure the equipment can be dis-assembled, packaged, loaded, transported and re-assembled at the end location with minimal damage and minimal effort.
- IPS-95 The Contractor shall provide a **Load Plan** as annex of the PHST Report that shall take into account:
- The mission function (modules needed);
  - The means of transport;
  - Location of deployment (Building of Opportunity, Field deployment, etc.)
- IPS-96 The Load Plan shall identify:
- the distribution of the load along the different loading platforms (containers, vans, etc.) and the internal distribution in each of those platforms taking into account weight distribution (for centre of gravity considerations);
  - the required order of use during deployment by providing 3D models (format such as .stp that is acceptable and usable in Purchaser 3D modelling tools) that entail a full scope detailed load plan starting from the rough models of the equipment with detailed modelling of transit cases, Non-CIS material in the packed form and palletization;
  - what needs to be loaded in terms of the number and dimensions of transit cases and other equipment, including all relevant the CIS and non-CIS;
  - the load order to optimise weight loading, space utilization, and minimal damage.
- IPS-97 Not applicable.
- IPS-98 Not applicable.
- IPS-99 Not applicable.
- IPS-100 The Contractor shall be responsible for customs clearance of all shipments into the destination countries. It is the Contractor's responsibility to take into account delays at customs. The Contractor shall therefore consider eventual delays and arrange for shipment in time. Under no circumstances can the Purchaser be held responsible for delays incurred, even when utilising Purchaser provided Custom Forms 302.
- IPS-101 The Contractor shall ensure that any requirements related to delivery and shipment of the equipment are obtained from NCI Agency in advance of shipments.
- IPS-102 The Contractor shall be responsible for the timely request of Custom Forms 302 at least 10 working days in advance of each shipment, required for duty free import/export of supplies between certain countries.
-

- IPS-103 The written request for a Custom Form 302 shall contain the information in Table 18:

Table 18 – Information for Custom Form 302

Serial	Requirement
1	Purchaser Contract Number
2	Contract line Item Number (CLIN), designation and quantities
3	Destination
4	Number and gross weight
5	Consignor's and Consignee's name and address
6	Method of shipment, e.g., road, air sea, etc.
7	Name and address of the freight forwarder

- IPS-104 The Custom Forms 302 shall be original, shall be delivered by mail/express courier and shall accompany the shipment and therefore no fax or electronic copy will be used, nor provided to the Contractor. If an express courier has to be used, by the Purchaser, to ensure that the form is available on time before shipment, all associated costs shall be reimbursed by the Contractor.
- IPS-105 The Contractor shall be responsible to add the Custom Form 302 to the shipping documentation to include on the outside document envelope the contract number and the Purchaser PoC to contact upon reception.
- IPS-106 The Contractor shall ensure that forwarding agents are informed of the availability of the Custom Form 302 and how this form is utilised to avoid the payment of Customs Duties and that the carrier shall be fully conversant with the application and use of Custom Form 302.
- IPS-107 In case of a Country refuses to accept the Custom Form 302 and requires the payment of custom duties, the Contractor shall immediately inform the Purchaser by the fastest means available and obtain from the Custom Officer a written statement establishing that its country refuses to accept the Custom Form 302. Only after having received Purchaser's approval, the Contractor shall pay these customs duties and shall claim reimbursement to the Purchaser.

#### 4.9.3 TRANSPORTATION

- [129] The Purchaser shall not be liable for any storage, damage or any other charges involved in such transportation of items and supplies prior to Acceptance. Any shipment loss shall be the responsibility of the Contractor.
- IPS-108 The Contractor shall be responsible to transport all items and supplies covered under this Contract to and from all destination addresses at no extra cost to the Purchaser and, or Customer until completion of the warranty period.
- IPS-109 The Contractor shall be responsible for transportation of unserviceable equipment to Contractor facility for warranty repair/replacement.
- IPS-110 The Contractor shall be responsible for transportation of all equipment furnished under this Contract from its site in a NATO nation to final destination.
- IPS-111 The Contractor shall be responsible for any insurance covering the shipment and delivery.
- IPS-112 The Contractor shall be responsible for transportation of repaired/ replacement items under warranty to the original location.

- IPS-113 The Contractor shall provide a **Transportation Report** (template to be provided as annex of the PHST Report) within two (2) weeks after each shipment has arrived at final destination. The Transportation Report shall include:
- A copy of the Packing List;
  - Date of arrival at final destination;
  - Date of delivery acceptance by the Purchaser's PoC at final destination;
  - Signature of delivery acceptance by the Purchaser's PoC at final destination

#### 4.10 TECHNICAL PUBLICATIONS

- [130] The Purchaser will review and approve (in 8 weeks) the Technical Publications delivered under this Contract.
- IPS-114 The Contractor shall detail approach and plans for Technical Publications in a relevant chapter into the IPSP. Updates shall be managed in a separate ad hoc document named **Technical Publication Development Plan (TPDP)** to be fully compliant with ASD S1000D iss.5 as per the NCIA instructions.
- IPS-115 The Contractor shall provide **User Manuals (UM)** [including Deployment Instructions that shall include the Loading Plan results and System Administrator Guide (SAG)] and **Maintenance Manuals (MM)** that shall constitute the system technical publications.
- IPS-116 The UM and MM shall include relevant information/instruction for COTS, Contractor customised items, modified items and fully developed items (excluding Purchaser Furnished Equipment (PFE)) that will be possible to include into.
- IPS-117 The Contractor shall provide and integrate into the relevant technical publication the **Original Equipment Manufacturer (OEM) Technical Manuals** for each Commercial off the Shelf (COTS) hardware and software component employed in the construction of the system, equipment and test equipment assuring that they:
- provide detailed specifications, functional and performance description, interfaces to external systems, descriptions of all indicators, switches, switch positions and displays, installation and operating instructions, corrective and preventive maintenance instructions, fault isolation and fault finding techniques, support equipment/tools description;
  - provide detailed information necessary to disassemble and assemble the units down to the lowest Line Replaceable Unit (LRU) level of maintenance;
  - provide the necessary drawings/schematics, specifications, wiring diagrams, etc., to allow the operators to troubleshoot, and fully understand, the design and operation of the particular equipment;
  - supplement but do not substitute User Manuals and/or Maintenance Manuals and thus be expected to be referenced in the latter as a way of providing specific details on a particular piece of equipment;
  - are amended by preparation of supplemental data to make them fully acceptable for Purchaser use.
- IPS-118 The Contractor shall ensure that, for the purposes of Disaster Recovery (DR), deployment, switching between mission states and maintenance, the technical publications are suited for use within each of the Node Shelters and are specifically tailored for each of the Node Shelters.

#### 4.10.1 USER MANUAL

- IPS-119 The Contractor shall provide User Manuals (UM) for the operation of the equipment and describes operation, settings and fine tuning of the equipment to achieve maximum performance, to handle the integrated system, to manage the system's operations, to support maintenance actions, to include also Deployment Instructions that shall include the Loading Plan results and System Administrator Guide (SAG).
- IPS-120 The UM shall provide description at system level and shall describe the complete system by the explanation of functional blocks, configuration items, all hardware and software items that comprise the system with appropriate drawings, of the mechanical, electrical, and electronic assemblies and sub-assemblies that comprise the applicable major product components, taking maximum advantage of the existing COTS-vendor Original Equipment Manufacturer (OEM) manuals and documentation, supplemented with adaptations, and additions relevant to the products furnished under this Contract
- IPS-121 The Contractor shall provide the UM for each node type. The Contractor shall maintain the UM until the end of warranty. The UM shall describe the in-depth, step-by-step procedures on how to operate the system, addressing all hardware and software items comprising the system. In addition, the UM shall list and describe all roles, operation tasks, and tools needed to operate the system.
- IPS-122 The UM shall include **Deployment Instructions** to cover at least the following topics:
- a. An uplift to the deployed scenario's with the number of personnel, skill sets and task durations;
  - b. Each task clearly indicating the steps, duration, number of personnel and their skilled levels to successfully complete the deployment;
  - c. Preparing the deployment set based on the mission/exercise configuration (Hardware and Software configuration and functional check of the modules to be deployed);
  - d. Container loading plan based on the mission priority (packing, stacking and loading to the containers), unloading and unpacking;
  - e. Set-up, installation and connections;
  - f. Power-up;
  - g. Configuration and settings;
  - h. Functional checks and tasks (Configuration and data back-up etc.);
  - i. Controlled shut down;
  - j. Disconnecting and dismantling;
  - k. Container loading plan (packing, stacking and loading to the containers);
  - l. Post-deployment checks.
- IPS-123 The UM shall include **Systems Administrator Guide (SAG)** to cover at least the following topics:
- a. Rebuild a CIS Node Shelter and Trailer from a factory node state into an operational mission state;
  - b. Facilitate the Sys Admin and Users to bounce-back from a Disaster Recovery powered-down situation;
-



- c. Access all relevant information regarding a deployment configuration, and administration of TDCIS;
- d. Have a detailed understanding of the system:
- e. All the tasks and activities that Staff will need to undertake;
- f. Determine the CIS Build Configuration;
- g. Determine any software, or active network infrastructure component configuration that needs to be undertaken;
- h. Understand any CIS Build Configurations and Instructions in compilation, build and deployment, to include:
  - i. System modules, services and components involved;
  - ii. Any interfaces employed and how;
  - iii. File structure and files;
  - iv. How software/configuration is built, including:
  - v. Descriptions of project and system directory structures;
  - vi. Specification of the build environment/settings;
  - vii. Configuration files.
- i. Easily identify Build and Assembly Instructions covering all the tasks required for each node type to be installed and configured, rerolled, and uninstalled from the system, to include:
  - i. Configuration instructions as necessary, for each active system component used within each system node type. Every instruction shall be supported by textual or graphical illustration of the system's response to that instruction;
  - ii. Component, module, service and, or system restoration instructions to be used following a power outage or system/node rebuild, for each active elements within every system node type. Each instruction shall be supported by textual and, or graphical illustration of the system's response to that instruction;
  - iii. Provide detailed installation/uninstallation procedures for all services employed by the system, allowing system administrators to rebuild services from scratch;
  - iv. Describe at least prerequisites for installing/uninstalling the system;
  - v. Detail procedures for the backup and recovery of every configuration file employed by the system's components, modules and services;
  - vi. Detail configuration settings for all services, modules and components employed by the system, that are to be configured and, or reconfigured upon a system build or rebuild;
  - vii. List how necessary modules and components are to be configured to enable the full and proper logging of system events

- to analyse system performance, utilisation and support system Cyber Defence activities;
- viii. Explain where log files outlined above are stored and how they can be recovered for exporting from the system;
  - ix. Detail the usage of all third-party applications needed to configure, manage and maintain the system;
  - x. Include troubleshooting information providing a break-down of actions to solve a wide range of (potential) problems and, or provide workarounds to problems indentified.
- j. Understand with depth step-by-step procedures, as an Administrators Operating Manual (AOM) on how to operate the system associated with that element, addressing all hardware and software items comprising the system, in addition:
- i. Listing and describing all roles, operation tasks, and tools needed to operate the system from the associated element;
  - ii. Using functional blocks, descriptions and appropriate drawings, the AOM shall describe the system elements and their Configuration Items (CI) within the respective mechanical, electrical, and electronic assemblies and sub-assemblies.
- k. The AOM as a part of the SAG shall:
- i. Take maximum advantage of the existing COTS Original Equipment Manufacturer (OEM) manuals and documentation, supplemented with adaptations, and additions relevant to the products furnished under this contract;
  - ii. Provide documentation dealing with the instructions and procedures for operators to handle, manage and support the system;
  - iii. Describe in detail all hardware and software items that comprise the system;
  - iv. Describe in detail the operational performance and the means of control for the operators;
  - v. Be a system level document and shall describe the complete system by the explanation of functional blocks and Configuration Items;
  - vi. Provide information to interpret (computer aided-) diagnostics and measurements;
  - vii. Describe in detail all software features, menus, and supporting graphics.
- l. Role Based Access Control. The Contractor shall provide a Role Based Access Control (RBAC) matrix as a part of the SAG. This crucial part of the authentication process should be an easy to refer to, and an automated function within the TDCIS to allow the system administrator to allocate TDCIS privileges and access.

- m. Deployment Manual. The Contractor shall, within the SAG provide a Deployment Manual covering the specific needs for each type of Node Shelter and Trailer, including:
- n. An uplift to the deployed scenario's with the number of personnel, skill sets and task durations. Operational Targets can be seen in the SRS;
- o. Each task clearly indicating the steps, duration, number of personnel and their skilled levels to successfully complete the deployment;
- p. The Deployment Manual shall, as a minimum, include all the tasks for preparation and operation for the deployment, namely:
  - i. Preparing the deployment set based on the mission/exercise configuration (Hardware and Software configuration and functional check of the modules to be deployed);
  - ii. Container loading plan based on the mission priority (packing, stacking and loading to the containers);
  - iii. Container unloading and unpacking;
  - iv. Set-up, installation and connections;
  - v. Power-up;
  - vi. Configuration and settings;
  - vii. Functional checks;
  - viii. Operation of the services (referring to the manuals).
- q. The Deployment Manual shall, as a minimum, include all the tasks for concluding the deployment, namely:
  - i. Functional tasks (Configuration and data back-up etc.);
  - ii. Controlled shut down;
  - iii. Disconnecting and dismantling;
  - iv. Container loading plan (packing, stacking and loading to the containers).
  - v. Post-deployment:
  - vi. Post-deployment checks;
  - vii. Back-up configuration and mission data;
  - viii. Node-state configuration;
  - ix. Hardware storage conditions.

IPS-124 The Contractor shall provide **Engineering Drawings** of all Computer Aided Design (CAD) drawings employed in the procurement and, or manufacture the following of TDCIS associated items:

- a. Equipment and rack mounting brackets;
- b. Mechanical equipment interfaces;
- c. Proprietary cable sections;
- d. Proprietary mechanical cable connections and interfaces.

- IPS-125 CAD application files detailing the items above are to be made available on the collaborative working environment, in an industry standard format, using best practice conventions for representing artefacts therein
- IPS-126 The Contractor shall provide **As-Built Drawings** (ABD) that reflect the complete installation conducted by the Contractor for each type of system, they shall comprise:
- a. Layout Plans showing the locations of all Contractor installed assets;
  - b. Cabling Plans showing all Contractor installed cabling, per security classification, clearly identifying the location and labelling of each cable, together with the terminations at both ends and the use of the cable;
  - c. Rack Layout Plans for all Contractor installed racks;
  - d. System Configuration Plan showing all installed assets with all their interfaces and interconnections, both internal and external;
  - e. Cross-referenced and consistent with each other and with any other documents provided under this Contract, such as manuals and training material.
  - f. Representing technical networking and service configuration diagrams shall use layered views, as follows:
  - g. One layer shall be created for the physical view, covering hardware, ports and cable-connections and associated identification markings (including also signal flow, electrical power and grounding);
    - i. One layer for the logical view, covering VLANs, virtual servers, logical links;
    - ii. One layer for the addressing and routing information;
    - iii. Service view schematics.
  - h. Technical Installation drawings should be precise, detailed and scaled drawing in accordance with applicable international norms (i.e. ISO 128, ISO 129, ISO 5455, inter alia). The technical drawings shall include elevations, plans, sections and 3D views. Dimensions and identification of most significant features are mandatory, and:
    - i. Provide the necessary drawings/schematics, specifications, wiring diagrams, etc., to allow the operators to troubleshoot, and fully understand, the design and operation of the particular equipment;
    - ii. Supplement but do not substitute User Manuals and/or Maintenance Manuals and thus be expected to be referenced in the latter as a way of providing specific details on a particular piece of equipment.
- IPS-127 The Contractor shall provide all **Original Equipment Manufacturer (OEM)** Manuals for each Commercial off the Shelf (COTS) hardware and software component employed in the construction of the system. All OEM COTS manuals shall cover:
- a. Functional descriptions;
  - b. Performance descriptions;
  - c. Detailed specifications;
  - d. Interfaces to external systems;
-

- e. Descriptions of all indicators, switches, switch positions, and displays;
- f. Installation instructions;
- g. Operating instructions;
- h. Corrective and preventive maintenance instructions;
- i. Fault isolation and fault finding techniques;
- j. Support equipment/tools description.

#### **4.10.2 MAINTENANCE MANUALS**

IPS-128 The Contractor shall provide Maintenance Manuals (MM) as per requirements of personnel operating and maintaining the equipment in accordance with the Maintenance Concept and the outcomes of Maintenance Task Analysis (MTA) including:

- a. Scheduled and Unscheduled Maintenance detailed instructions and associated plans, Troubleshooting and fault finding techniques (including descriptions of all indicators, switches, switch positions, displays, menu's, settings etc), Installation and dismantling of the equipment (including as applicable physical, electrical, software, safety, RF aspects etc.), repair and test procedures for HL3/SL3 activities;
- b. The SMPs shall clearly identify when specific maintenance or care is required depending on the environmental condition;
- c. The Contractor is required to assign all necessary preventive and corrective maintenance to the appropriate maintenance "levels" as determined by the Contractor;
- d. drawings of the mechanical, electrical and electronic assemblies and sub-assemblies that comprise the equipment in sufficient detail to allow technical staff to maintain the system at site level in accordance with the Maintenance Concept;
- e. as-built drawings (ABDs) for full details of how all of the major assemblies of the supplied equipment have been physically installed and mechanically/electrically integrated (e.g.: drawings of intra-rack and inter-rack cabling);
- f. detailed and lower level repair and maintenance of sub-assemblies and components shall be addressed by the Original Equipment Manufacturer's (OEM) manuals unless it has been agreed that specific activities are NMT.
- g. Physical, functional, performance, environmental data and descriptions (including support equipment/tools and interfaces to external systems)
- h. The construct of the MM's shall be documented in a System Maintenance Plan (SMP) which the Contractor shall deliver to the Purchaser for approval;
- i. The SMPs shall list the manufacture's maintenance service network in Portugal and other countries, and the respective range of maintenance services applicable to each equipment;
- j. If system redundancy can allow a component to be non-operable without deterioration in system performance, this limit may be exceeded;

- k. The equipment shall be furnished with the appropriate devices allowing the users to define in a precise and reliable manner when the maintenance shall be performed (i.e. if the periodicity is defined in operating hours, the equipment will be fitted with time readers);
- l. With clear referencing to the Product Breakdown Structure (PBS) [MNG-21];
- m. Functional descriptions and specifications, with appropriate drawings, of the mechanical, electrical, and electronic assemblies, sub-assemblies, components, and interfaces that comprise the system, consisting:
- n. Information, illustrations, and procedures required for: deployment, installation, configuration, disaster recovery, backup/restore, BIT/condition monitoring, fault finding and fault isolation/ troubleshooting techniques, test remove/ replace; and check out of each hardware and software item;
- o. Description of all the configuration settings for the modules, services and components/ how configuring the logging and uses of performance counters/ where finding the log files/ the different categories of logging/ the different performance counter categories;
- p. Description the usage of all third-party applications needed to configure, manage and maintain the system;
- q. Descriptions of all indicators, switches, switch positions, and displays;
- r. Safety instructions;
- s. Identification of the required maintenance tools and test equipment.
- t. A scheduled maintenance plan detailing:
  - i. That compliments the SAG;
  - ii. All 1st, 2nd and 3rd level scheduled and preventive maintenance tasks, linked to the pertinent Maintenance Significant Items (MSI);
  - iii. Defining the in-depth, step-by-step procedure how to perform the 1st, 2nd and 3rd level corrective and preventive maintenance tasks and SM&C tasks;
  - iv. Setup and dismantle instructions for each type of Node;
  - v. Loading and unloading, as well as packing and unpacking instructions for each type of DPOP. (or refer to the Deployment Guide).
- u. A un-scheduled maintenance plan that provides support to the CIS Equipment to be maintained, written in accordance with the Maintenance Concept specified in the SDP and the outcomes of Maintenance Task Analysis. The MMs should include:
  - i. Detailed instructions for troubleshooting and fault finding techniques (including descriptions of all indicators, switches, switch positions, displays, menu's, settings etc), Installation and dismantling of the equipment (including as applicable physical, electrical, software, safety, RF aspects etc.), repair and test procedures for HL3/SL3 activities;
  - ii. Drawings of the mechanical, electrical and electronic assemblies and sub-assemblies that comprise the equipment in sufficient

detail to allow technical staff to maintain the system at site level in accordance with the Maintenance Concept;

- iii. As-built drawings (ABDs) for full details of how all of the major assemblies of the supplied equipment have been physically installed and mechanically/electrically integrated (e.g.: drawings of intra-rack and inter-rack cabling);
- iv. Detailed and lower level repair and maintenance of sub-assemblies and components shall be addressed by the Original Equipment Manufacturer's (OEM) manuals unless it has been agreed that specific activities are NMT;
- v. Physical, functional, performance, environmental data and descriptions (including support equipment/tools and interfaces to external systems).

- IPS-129 The Contractor shall ensure maturity of the MMs during the system's warranty period.
- IPS-130 The Contractor shall ensure that, for the purposes of Disaster Recovery (DR), Deployment, Switching between Mission states and Maintenance, the SAG, UOM and the MMs are suited for use within each of the Nodes; and should be specifically tailored for each of the Nodes
- IPS-131 The Contractor shall provide the SAGs, UOM and MMs in a configured and ease of use format:
- a. Hard copies;
  - b. Soft copies;
- IPS-132 All to be delivered as a configured set of documents and present within each of the Nodes; and to be specifically tailored for each of the Nodes.

## 4.11 TRAINING

### 4.11.1 OVERVIEW

- [131] There will be a maximum number of 20 trainees to receive training as part of this contract. Following this project, the trainees will be responsible for training others in the use and maintenance of the TDCIS; the contractor will be 'training the trainer'.
- IPS-133 The Purchaser will provide an adequate training facility, into which the Contractor shall provide adequate standard classroom furniture and equipment, such as beamer, screen, white board, paper and writing utensils.
- [132] The Purchaser will review and approve (in 8 weeks) the Training Material delivered under this Contract
- IPS-134 The Contractor shall detail approach and plans for Training in a relevant chapter into the IPSP. Updates shall be managed in a separate ad hoc document named **Training Plan (TP)** that shall include the **Training Needs Analysis (TNA)**. Training shall be through the most effective training option identified by the TNA. Options shall include: bespoke Contractor courses, commercial training courses, or a mix of bespoke and commercial courses. Courses shall be organised as self-study courses through the use of Computer Based Training (CBT), instructor-led classroom

training, On-The-Job practical training (OTJ), or a combination thereof. The selected methods and their combination weight shall be proposed in the Training Plan for Purchaser approval.

- IPS-135 The Contractor shall develop the training materials and courses on the outcomes of Maintenance Task Analysis as well as the TNA.
- IPS-136 The Contractor shall be fully responsible for planning, organizing, installing, operating and maintaining all that is required to perform the training. This includes any training equipment used in the classroom.
- IPS-137 The Contractor shall assume that trainees and audience will have proficiency in the English language, knowledge of the Microsoft Windows Operating System and the audience will be tailored for a maximum ten (10) students plus maximum four (4) auditors.
- IPS-138 The Contractor shall provide Training and all related training documentation in the English language. Training shall be able to accommodate Purchaser students with an English language skill level of 2222 (STANAG 6001). Contractor trainers shall have English language skill level 3332.
- IPS-139 The Contractor shall provide evidence of the trainer, or a Subject Matter Expert (SME) supporting the trainer, qualifications and in particular to have at least two years practical experience with the installation and operation of the items under training.

#### **4.11.2 TRAINING PLAN**

- IPS-140 The Contractor shall provide a Training Plan that explains in detail how the Contractor shall fulfil all training requirements in this Contract. The Training Plan and supporting PMS shall include the following for each course:
- a. Description of the Contractor training organisation;
  - b. Planning of the training stages and activities, including the TNA, development of training material and corresponding schedule for each training course material, organisation of courses, course execution, learning methods for each type of course;
  - c. Course description. This shall be a clear description of:
    - i. A narrative explanation of the subject matter of the specific course;
    - ii. The course format, objectives, and training materials, described in sufficient detail to ensure the students will receive required training.
    - iii. A proposed syllabus detailing the subject matter to be covered.
  - d. Any breakdown into modules shall be described, following the format of Course Control Documents (CCD) I, II, and III as of Bi-SC Directive 075-007.
  - e. Student prerequisites (if required);
  - f. Course length (including time devoted to each area of the course);
  - g. Method of presentation for each element of the syllabus (show breakdown of methods, i.e., lecture, demonstration, hands-on and directed study, online etc.);



- h. 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 training objectives by written and performance tests;
- i. List of training material, by Product Breakdown and training equipment required (Contractor-provided documents or materials shall be included). This shall include the appropriate standards for electronic data;
- j. Description of the training equipment to be used including the functionality in terms of the operational and maintenance tasks;
- k. Recommended maximum size of course. Recommended location of training and type of facility required (i.e., classroom, auditorium, site, etc.);
- l. List of measurable objectives (tasks) required by graduates to demonstrate successful completion of course;
- m. Proposed schedule for training courses;
- n. Relationship to related programme milestones and to the equipment delivery schedule;
- o. Number of hours of “hands-on” training to be provided to each student;
- p. Training Site Survey and training system installation.

IPS-141 The Contractor’s training Plan shall observe the Customer’s normal working routine.

IPS-142 The Contractor shall provide the TP detailing the relevant content to cover the following structure and the Bi-SC Directive 075-007.

Table 19 - TP Content and Structure

Structure	Content
1	Introduction
2	Documents and Acronyms
2.1	List of Applicable Documents
2.2	List of Reference Documents
2.3	List of Acronyms
3	Training Management
4.1	Training team
4.2	Training processes and procedure overview
4.3	Training RACI Matrix
4.4	Training tools
4.5	Learning Methods
4.6	Training constraints
5	Planning
5.1	TNA results
5.2	Training Material
5.3	Training Courses
5.4	Proposed time schedule
6	Organisation of courses
6.1	Course description <sup>11</sup>

<sup>11</sup> A proposed syllabus shall be included, detailing the subject matter to be covered. Any breakdown into modules shall be described, following the format of Course Control Documents (CCD) I, II, and III as of Bi-SC Directive 075-007. For each course there shall be also the following details:

Structure	Content
6.2	Training objectives
6.3	Method of presentation
6.4	Method of evaluation
6.5	Training certificates
6.6	Feedback management

### 4.11.3 TRAINING NEEDS ANALYSIS (TNA)

IPS-143 The Contractor shall develop for Purchaser acceptance, a Training Needs Analysis (TNA) with an appropriate Media Analysis. The Training Needs Analysis (TNA) shall be produced in accordance with the Bi-SC Directive 075-007, and include:

- a. Operational Tasking Inventory (OTI);
- b. Site Surveys;
- c. Training Product Breakdown;
- d. Courseware Deliverables;
- e. The Contractors trainers shall have English language skill level 3332;
- f. The Contractor shall assume that Trainees and audience will have:
- g. Proficiency in the English language;
- h. Knowledge of the Microsoft Windows Operating System;
- i. Training audience will tailored for a maximum twelve (10) students;
- j. There shall be a maximum four (4) auditors on each course delivered.

IPS-144 The Contractor shall develop as part of their TNA and TP:

- a. A Target Audience Analysis. The Target Audience Analysis shall identify user and support categories, including end users, support staff (to perform Levels 1, 2 or 3) and Purchaser instructor personnel (for follow-on training);
- b. A Performance Gap Analysis. The Performance Gap Analysis shall assess the gap between the current skills of users, support staff or Instructor and the tasks they will be expected to perform in the use and support of the Operational Baseline;
- c. A Difficulty, Importance and Frequency (DIF) Analysis. The Difficulty, Importance and Frequency (DIF) Analysis shall identify the difficulty and importance of each major task to be performed by each category of users, support staff or Instructor and the frequency with which the task will be performed;
- d. A Training Options Analysis.

- 
- Student prerequisites (if required);
  - Method of presentation for each element of the syllabus (show breakdown of methods, i.e., lecture, demonstration, hands-on and directed study, online etc.);
  - Course length (including time devoted to each area of the course);
  - Recommended maximum size of course;
  - Recommended location of training and type of facility required (i.e., classroom, auditorium, site, etc.);
  - List of measurable objectives (tasks) required by graduates to demonstrate successful completion of course;
-

- IPS-145 For each task identified, the Contractor shall assess the knowledge and skill required to perform the task, determine performance objectives, and recommend how training should be provided to meet these requirements.
- IPS-146 The TNA shall identify which operation and maintenance tasks are required to operate and maintain the system at Level 1 / 2 / 3 of support. These tasks shall be documented in the Operation and Maintenance Manual, and listed in the TNA Report.
- IPS-147 Training delivery shall be through the most effective training option identified by the TNA. Options shall include: bespoke Contractor courses, commercial training courses, or a mix of bespoke and commercial courses. Courses shall be organised as self-study courses through the use of Computer Based Training (CBT), instructor-led classroom training and On-The-Job practical training (OTJ). The selected methods and their combination weight shall be proposed in the Training Plan for Purchaser approval.
- IPS-148 The TNA shall also identify the course pre-requisites for all training courses. The pre-requisite training shall be described in such a way as to allow Host Nation to select students and organise Host Nation pre-requisite training, in time, before execution of the Contractor’s training programme commences.
- IPS-149 The results of the TNA shall be captured in a TNA report. The TNA report shall capture the results of the TNA. The structuring of training modules, role-based training programmes, and training material, as well as the training sequence, mode and duration shall be based on the outcomes of the TNA
- IPS-150 The Contractor shall provide the TNA detailing the relevant content to cover the following structure and the Bi-SC Directive 075-007.

Table 20 - TNA Content and Structure

Structure	Content
1	Introduction
2	Documents and Acronyms
2.1	List of Applicable Documents
2.2	List of Reference Documents
2.3	List of Acronyms
3	Analysis
4.1	Target Audience <sup>12</sup>
4.2	Performance Gap <sup>13</sup>
4.3	Difficulty, Importance and Frequency (DIF) <sup>14</sup>

<sup>12</sup> Target Audience Analysis: identification of user and support categories, including end users, support staff (to perform Levels 1, 2 or 3) and Purchaser instructor personnel (for follow-on training).

<sup>13</sup> Performance Gap Analysis: identification of the gap between the current skills of users, support staff or Instructor and the tasks they will be expected to perform in the use and support; identification of the course pre-requisites for all training courses to allow Host Nation to select students and organize Host Nation pre-requisite training, in time, before execution of the Contractor’s training.

<sup>14</sup> Difficulty, Importance and Frequency (DIF): identification of the difficulty and importance of each major task to be performed by each category of users, support staff or Instructor and the frequency with which the task will be performed assessing the knowledge and skill required to perform the task, determining performance objectives, and recommending how training should be provided to meet these requirements.

Structure	Content
4.4	Training Options
5	Results <sup>15</sup>

#### 4.11.4 TRAINING REQUIREMENT

- IPS-151 The Contractor shall ensure that the Training Requirement is delivered as a part of the TP and the TNA, and that all aspects of TDCIS training are considered.
- IPS-152 The Contractor shall ensure that Training shall be through the most effective training option identified within the TNA. Options shall include: bespoke Contractor courses, commercial training courses, or a mix of bespoke and commercial courses. Courses shall be organised as self-study courses through the use of Computer Based Training (CBT), instructor-led classroom training, On-The-Job practical training (OTJ), or a combination thereof. The selected methods and their combination weight shall be proposed in the Training Plan for Purchaser approval.
- IPS-153 The Contractor shall develop the training materials and courses on the outcomes of maintenance task analysis, as well as the TNA.
- IPS-154 The Contractor shall be fully responsible for planning, organising, providing, installing, operating and maintaining all that is required to perform the training. This includes any training equipment used in the classroom.
- IPS-155 The Contractor shall assume that trainees and audience will have proficiency in the English language, knowledge of the Microsoft Windows Operating System and the audience will be tailored for a maximum ten (10) students plus maximum four (4) auditors.
- IPS-156 The Contractor shall provide Training and all related training documentation in the English language. Training shall be able to accommodate Customer students with an English language skill level of 2222 (STANAG 6001). Contractor trainers shall have English language skill level 3332.
- IPS-157 The Contractor shall provide evidence of the trainer, or a Subject Matter Expert (SME) supporting the trainer, qualifications and in particular to have at least two years practical experience with the installation and operation of the items under training.
- IPS-158 The Purchaser will provide a serviced training facility, in coordination with the customer, within which the Contractor is to provide necessary equipment to deliver planned training.
- IPS-159 The Contractor shall provide Training Materials and Training Execution for test personnel, operators, maintainers and instructors:
- Based on the maintenance and support concept (Logistics database);
  - Based on technical publications;
  - Containing slides used during the training, and provide a hardcopy to each student;
  - In the requested format (e.g. NATO Academy presentation / handbook formats and style guides) for review and approval;

<sup>15</sup> Structuring of training modules, role-based training programmes, and training material, as well as the training sequence, mode and duration.

e. At the Customer's facilities designated for this purpose.

IPS-160 The Purchaser will review and approve (in 8 weeks) the Training Material delivered under this Contract. Upon acceptance of the draft version, the Contractor shall deliver the final version of the training material. All training material delivered under this contract shall be subject to review and approval by the Purchaser. The Contractor shall deliver to the Purchaser a complete draft of all training material no later than 20 working days in advance of each course.

IPS-161 The Contractor shall provide written notification that all required training equipment and other resources are ready for the commencement of the Training Course at least 2 weeks prior to the start of any course.

#### 4.11.5 TRAINING MATERIAL

IPS-162 The Contractor shall provide **Training Materials** and shall execute **Training Course** for test personnel, operators, maintainers and instructors:

- a. based on the maintenance and support concept (Logistics database);
- b. based on technical publications,
- c. containing slides used during the training, and provide a hardcopy to each student.
- d. in the requested format (e.g. NATO Academy presentation / handbook formats and style guides) for review and approval.
- e. At the Customer's facilities designated for this purpose.

IPS-163 The equipment and site used by the Contractor for Training Courses shall be restored to its initial state at the end of the training at no cost to Purchaser nor the Customer.

IPS-164 The Contractor shall deliver an Instructor Manual (included in the Training Materials) to enable the instructor to prepare, conduct, and conclude the training course to meet the learning objective within the allocated training period.

IPS-165 The Contractor shall provide written notification that all required training equipment and other resources are ready for the commencement of the Training Course at least 2 weeks prior to the start of any course.

IPS-166 Training shall be provided on all CIS and Non-CIS components, CIS ancillaries and software (excluded on PFE and NFE). However, training shall cover the system specific interfaces to any external systems (e.g. external power system), PFE and NFE.

IPS-167 The Contractor shall prepare and provide all materials that will be used for the training. All documentation and training material delivered shall include an electronic editable version. The training material shall be available in a Purchaser approved version and formatting before the start of the training course(s).

IPS-168 The Contractor shall organise or develop and issue course material to ensure that each course provides all students / instructors with:

- a. A student handbook;
- b. Slides to support the course;
- c. Instructor Manual as defined in Section 4.11.7;
- d. A Training Certificate, upon completion of the course; and

- e. A course evaluation feedback form.
- IPS-169 Training handbooks shall include all training content required to teach and comprehend the course. This includes an introduction to the training course; training course and lesson objectives; lesson overview and instructor / learning guide; course schedule; administrative and safety instructions; quick reference cards; and exercise material.
- IPS-170 All training material shall be provided to the Purchaser in the requested format (e.g. NCI Academy presentation / handbook formats and style guides) for review and approval. The review process shall be proposed in the Training Plan and organised by the Contractor in time to ensure training material is approved before start of the training programme
- IPS-171 The Contractor shall be responsible for the full installation, integration and validation of all training systems at the training location.
- IPS-172 The Contractor shall ensure that each student is instructed at the end of each course to complete and return the **Course Evaluation Feedback Form**.
- IPS-173 The Contractor shall consolidate and forward student feedback to the Purchaser following each training course in the form of a **Training Evaluation Report**. The report shall also recommend changes and improvements to the training courses based on the consolidated student feedback. The report shall also address student attendance, problems encountered and actions taken to resolve the problems.
- IPS-174 The Contractor shall revise/ refine and reissue any course material to reflect the consolidated student feedback and proposed improvements in the training evaluation report.
- IPS-175 Training courses shall include final theory and practical assessment tests that shall be graded based on the NCI Academy standards. However, no pass/fail decision shall be made by the Contractor.
- IPS-176 The Contractor shall produce **Training Certificates** for each training session and student. The certificates shall be issued to students at the end of each course
- IPS-177 The Contractor shall provide training work package considering the following characteristics:
- a. At PDR, a Presentation of a Training Strategy, i.e. into how Training shall be delivered;
  - b. At CDR, a Training Plan detailing clearly how, where and when training shall be delivered;
  - c. At CDR, the Contractor and the Purchaser shall highlight to the Customer exactly what resources shall be required; i.e. power supply, space, handling equipment, and so forth;
  - d. At CDR, a 'preliminary' Training Needs Analysis (TNA) - limited to the training 'deltas' required to support TDCIS;
  - e. At CDR, a 'preliminary' Media Analysis - to cover the training fidelity, location and numbers to train;
  - f. For CDR, a 'preliminary' view on the courseware, delivery and setting up of a Training Environment at the UAT(E) location;
-

- g. During Phase 3, as the Build, Configuration and FAFT matures, so can the supporting training documentation, therefore in advance of OPTEVAL and UAT(E) the finalised Training Materiel shall be delivered, namely TNA, Media Analysis and Courseware;

- IPS-178 All training Courseware, shall cross reference the technical and usage manuals, and not duplicate it.
- IPS-179 The training course agendas shall accommodate schedules for a class size of up to 10 participants, with a total number of 20. The Contractor shall ratify numbers in their training plan-
- IPS-180 The training shall be designed to cover all matters required for the TDCIS to be in a state of readiness for User Acceptance testing.

#### **4.11.6 TRAINING HARDWARE**

- IPS-181 The Contractor shall design and build suitable training hardware to support its TNA and Test Plan.
- IPS-182 The Contractor shall ensure that hardware is suitable for the training environment which the training hardware is to be located.
- IPS-183 The Contractor shall identify all training equipment on a training product breakdown list.
- IPS-184 The Contractor shall ensure the safe delivery of all training hardware and courseware to the training location as detailed within the SSS.
- IPS-185 The Contractor shall be responsible for the full installation, integration and validation of all training systems at the training location.
- IPS-186 On completion of training delivery, the Contractor shall be responsible for handing the training facilities back to Customer, in the state in which it was received by the Contractor.

#### **4.11.7 INSTRUCTOR MANUALS**

- IPS-187 The Contractor shall deliver an Instructor Manual to enable the instructor to prepare, conduct, and conclude the training course to meet the learning objective within the allocated training period.
- IPS-188 The Instructor Manual shall follow the CCD II and III format include all fields on those control documents, including but not limited to:
  - a. A Course Overview;
  - b. Course organisation;
  - c. Course coordination;
  - d. Target audience;
  - e. Course Goals and outcomes;
  - f. Class size;
  - g. Host Agency responsibilities;
  - h. Audio-visual equipment requirements;
  - i. Room requirements;

- j. Local coordinator's responsibilities;
- k. Training site;
- l. Participants and instructors;
- m. Final arrangements;
- n. Student requirements.
- o. Course agenda;
- p. For the instructor:
  - i. Presentation requirements:
  - ii. Before the training event – preparation and device configuration list;
  - iii. During the training event;
  - iv. After the training event, to include resetting of devices.
  - v. Course evaluation templates.

#### **4.11.8 TRAINING COURSES**

IPS-189 The Contractor shall ensure the following for Training Courses:

- a. All Contractor staff tasked to deliver training shall be security cleared for access to R\*strict\*d workplaces and data, in advance of the courses they are scheduled to deliver.
- b. All training modules and courses required to enable all initially assigned the Purchaser personnel to operate and maintain the system at Level 1, 2 and 3. This shall include comprehensive and standalone hands-on training of load/unload, pack/unpack, and setup/dismantle of Nodes including a full-scale deployment scenario;
- c. Sufficient hands-on, practical lessons on the actual system equipment provided through this Contract;
- d. Training takes place in Portugal prior to the UAT(E). The Contractor shall be fully responsible for planning, organizing, installing, operating and maintaining all that is required to perform the training. This includes any training equipment used in the classroom;
- e. Training and all related training documentation is provided in the English language. Training shall be able to accommodate Purchaser students with an English language skill level of 2222 (STANAG 6001). Contractor trainers shall have English language skill level 3332;
- f. Where training is evaluated as being more suitable for On-The-Job-Training (OTJ), the Contractor shall provision the training course with OJT Type Training Activity.
- g. Where training is evaluated as being more suitable for Classroom Environments, the Contractor shall provision and plan the training course with all Classroom training assets.
- h. Where training is evaluated as being more suitable to be carried on on TDCIS Equipment, the Contractor shall provision and plan the training course with all Classroom training assets.



**4.11.9 TRAINING EVALUATION**

- IPS-190 The Contractor shall ensure that each student is instructed at the end of each course to complete and return the course evaluation feedback form.
- IPS-191 The Contractor shall consolidate and forward student feedback to the Purchaser following each training course in the form of a Training Evaluation Report. The report shall also recommend changes and improvements to the training courses based on the consolidated student feedback. The report shall also address student attendance, problems encountered and actions taken to resolve the problems.
- IPS-192 The Contractor shall revise/ refine and reissue any course material to reflect the consolidated student feedback and proposed improvements in the training evaluation report.
- IPS-193 Training courses shall include final theory and practical assessment tests that shall be graded based on the NATO CIS School standards. However, no pass/fail decision shall be made by the Contractor.
- IPS-194 The Contractor shall produce Training Certificates for each training session and student. The certificates shall be issued to students at the end of each course

**4.11.10 TRAINING TIMEFRAMES**

- IPS-195 Four (4) weeks after contract award, the Contractor shall propose a Training Strategy (~~CDRL PR-14.1~~); this strategy shall then support the PDR.
- IPS-196 Training shall be provided in English and the training course will be performed at a military base in Portugal; delivered and completed in advance of OPTEVAL.
- IPS-197 Training deliverables shall be compliant with guidelines in the TNA and TP.
- IPS-198 Where the removal and/or dismantling of parts for maintenance training may affect the integrity of the equipment, the Contractor shall provide the appropriate support.
- IPS-199 The equipment and site used by the Contractor for Training Delivery shall be restored to its initial state at the end of the training at no cost to Purchaser nor the Customer.
- IPS-200 For total clarity the Contractor shall ensure that training deliverables include the following characteristics:
- a. At PDR, a Presentation of a Training Strategy, i.e. into how Training shall be delivered;
  - b. At CDR, a Training Plan detailing clearly how, where and when training shall be delivered;
  - c. At CDR, the Contractor and the Purchaser shall highlight to the Customer exactly what resources shall be required; i.e. power supply, space, handling equipment, and so forth;
  - d. At CDR, a 'preliminary' Training Needs Analysis (TNA) - limited to the training 'deltas' required to support TDCIS;
  - e. At CDR, a 'preliminary' Media Analysis - to cover the training fidelity, location and numbers to train;
  - f. For CDR, a 'preliminary' view on the courseware, delivery and setting up of a Training Environment at the UAT(E) location;

- g. During Phase 3, as the Build, Configuration and FAFT matures, so can the supporting training documentation, therefore in advance of OPTEVAL and UAT(E ) the finalised Training Material shall be delivered, namely TNA, Media Analysis and Courseware;
  - h. All support information and equipment delivered to the PRT training environment.
- IPS-201 All training Courseware, shall utilise, not duplicate, the technical and usage manuals as part of the training material.
- IPS-202 The training course agendas shall accommodate schedules for a class size of up to 10 participants; noting that the Contractor shall ratify numbers in their training plan.
- IPS-203 The training for Abinito students shall be designed as a UAT(E) get-you-going package.
- IPS-204 The training for the trainer package to deliver training for military personnel shall be aimed at equipment operators and 1st and 2nd level maintenance technicians; the purpose of this "train-the-trainers" package shall be to:
- a. Demonstrate the erection, operation, dismantling, packaging, and maintenance (1st and 2nd level) of the containers for the Portuguese Army personnel;
  - b. Review all applicable safety procedures;
  - c. The training package must cater for both learning to operate and maintain the equipment and for teaching others to operate and maintain it. Training aids, syllabi, lesson plans, and performance verification material shall be developed for learning and for subsequently teaching the course material with the entire course materials made available to the students for their subsequent use.
- IPS-205 After training completion, for each participant at the end of the course, provision of a certificate, which indicates proficiency in the operation of the equipment.

#### 4.12 IN SERVICE SUPPORT DURING WARRANTY

- [133] The warranty period starts after successful completion of FSA for each relevant batch and ends with the warranty end of each item (hardware and software) of relevant batch.
- [134] The In Service Support (ISS) during Warranty begin on successful completion of FSA for each relevant batch and run for a period of **two (2) consecutive, one (1) year periods** provided that the relevant batch is free of any defect in material, code or workmanship.
- [135] The Purchaser and/or Customer will operate the system after the FSA of each relevant batch
- [136] The Customer will be responsible at their own expenses for return of failed items, from deployed units to Customer's Mission Preparation Centre (MPC) within the Customer's home nation, from where the Contractor will collect these items.
- [137] Any support required for Purchaser Furnished Equipment will be provided through separate support contract provided with the PFE.
- IPS-206 The Contractor shall detail approach and plans for ISS during Warranty in a relevant chapter into the IPSP.

- IPS-207 The Contractor shall be responsible for the maintenance and repair of the system (except for PFE) until successful completion of FSA for each relevant batch and therefore shall provide its own spare parts, tools and test equipment to maintain the system (except for PFE and NFE) to the required performance level
- IPS-208 The Contractor shall provide In Service Support during Warranty for:
- a. Batch 1;
  - b. Batch 2;
  - c. Batch 3.
- IPS-209 The Contractor shall provide the following ISS during the Warranty to maintain the system to the required performance level, being responsible for:
- a. Maintenance
    - i. Hardware corrective/unscheduled and preventive/scheduled maintenance: repair and/or re-placement of all defective technical installations/equipment;
    - ii. Software corrective/unscheduled and preventive/scheduled maintenance: remediation/resolution of all bugs, flaws, etc. of all software installations, provided as part of this contract.
    - iii. Maintenance to be carried out at the Customer's MPC, prior to node deployment and at the Customer's establishment to where node equipment is recovered, following its deployment;
    - iv. In the case of a failure could not be identified to an LRU level and/or could not be isolated within 3 business day (starting with the warranty request) even with on-call assistance from the Contractor, the Contractor shall dispatch a field engineer to provide a solution on-site.
  - b. Repair: collection from, repair and return of defective and/or failed equipment to Customer's MPC with maximum Turn Around Time (TAT) twenty (20) calendar days. This shall include in-processing, troubleshooting, repair, check-out and shipment until delivery to the Customer's MPC;
  - c. Any replaced part during the warranty period shall be under minimum 2 (two) years warranty beginning from the replacement date
  - d. On-demand support and technical assistance at the Customer's MPC providing indication for HW and SW corrective/unscheduled and preventive/scheduled maintenance HL/SL 2 included and onwards to ensure that the response times specified can be met (e.g.: MTTR, TAT).
  - e. Install and/or integrate Original Equipment Manufacturer (OEM) software application and operating system updates to node components at any point in a node's deployment cycle, to be carried out at the Customer's MPC only.
- IPS-210 All HW and SW corrective/unscheduled and preventive/scheduled maintenance HL/SL 3 that will be the Contractor's responsibility, shall be conducted in the most suitable geographical location for the optimisation and cost-effectiveness of its implementation.
- IPS-211 The Contractor shall warrant that all equipment, software, documents, system design, production and implementation provided 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 and that all hardware (equipment) and software delivered under the Contract are genuine and free of any
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- malicious components, firmware and software, for a period of at least two (2) years after successful completion of last batch's FSA.
- IPS-212 The Contractor shall be responsible for establishing an adequate supply chain security process and taking the necessary measures.
- IPS-213 The Contractor shall allow and support ad-hoc spot checks and audits by the Purchaser of any of their supply chain security measures at any of the Contractor's locations and facilities used in the Contractor's supply chain relevant to this Contract.
- IPS-214 The Contractor shall be responsible for the provision of any alternative or superseding items, should the original part be no longer available ensuring SRS and PBL compliance.
- IPS-215 The Contractor shall be responsible for supplying all COTS hardware and software upgrades and updates till the end of warranty period.
- IPS-216 Any support required for Purchaser Provided Equipment (PFE) and Purchaser Provided Software (PPS) will be provided through separate support contract provided with the PFE.
- IPS-217 This Contractor shall not support PFE/PFS or NFE, such as purchaser provided crypto equipment and general use software, or Purchaser provided radios. However, the support shall include the interfaces between the system and any external systems, PFE/PFS or otherwise.
- IPS-218 The Contractor shall provide support to all items, ancillaries, and software provided under the Contract.
- IPS-219 All maintenance tasks covered by the Level of Support 3 that will be the Contractor's responsibility (i.e.: IMT), shall be conducted in the most suitable geographical location for the optimisation and cost-effectiveness of its implementation and support.
- IPS-220 The Contractor shall submit a **Warranty Report**
- a. At the end of every 3 month period during the warranty period, documenting all identified warranty cases, affected CI's, corrective actions, cost and schedule.
  - b. At the end of the warranty period that cumulative report all identified warranty cases, affected CI's, corrective actions, cost and schedule
- IPS-221 The Contractor shall perform the Obsolescence Management during the warranty period providing the Obsolescence Report relevant information either in the Warranty Report or in an ad hoc report depending on the criticality.

#### **4.13 IN SERVICE SUPPORT PLAN**

- IPS-222 The Contractor shall establish, provide, execute and maintain an effective In Service Support Plan (ISSP) that describes in detail the practical instructions necessary for the Purchaser's In Service Support organisation to operate and maintain the system (hardware and software) delivered under this Contract.
- IPS-223 The ISSP shall describe the ISSP strategy and the detailed process and procedure to execute the ISS. This plan shall be detailed enough to form a comprehensive understanding of how the Contractor proposes to meet the support requirements of this SOW.
- IPS-224 The Contractor shall provide a description of how its proposed CM procedures shall continue to be implemented on the hardware and software/firmware during the ISS.

- IPS-225 The ISSP shall be considered a living document and as such shall be updated as necessary by the Contractor, with the Purchaser's concurrence, throughout the contracted post warranty ISS.
- IPS-226 The ISSP shall describe and detail the following:
- a. Detailed description of the product baseline for the ISS (HW and SW)
  - b. Contractor's proposed ISS Management Organisation and Structure, to carry out the ISS effort proving adequate experience in the maintenance and support of major defence systems including specialised software.
  - c. Plan and methods for performing ISS activities (e.g.: intervention on each site, preventive maintenance, repair activities, spares replenishment) for the main three areas: Engineering Support (ES), Material Management (MM) and Field Engineering (FE) (i.e.: maintenance activities and field services) and evaluating the Contractor's performance during ISS through proposed Key Performance Indicators for each area.
  - d. Details for suggested Service Level Agreements (SLA) and relevant Key Performance Indicators (KPI) methods, measures and thresholds
  - e. Details for Data Reporting Analysis and Corrective Action System (DRACAS) and its link to ECP and configuration change management [included in Engineering Support Area].
  - f. Details for maintaining and updating the Technical Publications and the Logistics Database providing relevant input to training material for refreshing training courses [included in Engineering Support Area].
  - g. Details for spare parts procurement, replenishment and repair including PHST (e.g.: strategy for replacing hardware that can no longer be economically supported by the Contractor or sub-contractors) [included in Material Management Area].
  - h. Plan and methods for Configuration Management and Obsolescence Management specific for the ISS.
  - i. Plan and methods for communication (e.g.: for site personnel to inform ISS Contractor when spares have been used and when assistance is needed) detailing also the use of Call centre and Collaborative environment and how any exceptions have to be handled.
- IPS-227 The Contractor shall provide a description of the proposed logistics and maintenance information processes. This description shall detail how the information from locations and the Contractor's maintenance facilities will be collected, stored and made available for evaluation. The term "Sites" refers to every physical location where systems or items under this contract are located when Contractor's activity is required.
- IPS-228 The Contractor shall provide a description of how the QA/QC Programme of the Prime Contractor and sub-contractors providing ISS services shall meet the provisions of this contract. The Contractor shall include applicable certificates (issued by National Governments or International Organisations such as ISO) that demonstrate that the sub-contractors Quality Programme conforms to the requirement of the Prospective ISS Contract. The Contractor shall also demonstrate how the provisions of the Prospective ISS Contract regarding QA/QC shall be inserted in all subcontracts and enforced by the Prime Contractor.
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IPS-229 The Contractor shall provide the ISSP detailing the relevant content to cover the following structure.

Table 21 - ISSP Content and Structure

Structure	Content
1	Introduction
2	Documents and Acronyms
2.1	List of Applicable Documents
2.2	List of Reference Documents
2.3	List of Acronyms
3	System Overview
3.1	Architecture
3.2	Operational scenario
3.3	Maintenance Concept
3.4	Support Concept
4	ISS Management
4.1	ISS team
4.2	ISS processes and procedure overview
4.3	ISS RACI Matrix
4.3	ISS constraints
4.4	ISS tools
4.5	ISS Contractual Documentation Requirements List (CDRL)
5	System Breakdown
6	Engineering Support (ES)
6.1	Framework and processes description
6.2	Data Reporting Analysis and Corrective Action System
6.3	Logistics deliveries update
6.4	Key Performance Indicators for ES
6.5	Supportability Evaluation and performance analysis
7	Material Management (MM)
7.1	Framework and processes description
7.2	Materials and maintenance concept
7.3	Stock
7.4	Key Performance Indicators for MM
8	Field Engineering (FE)
8.1	Framework and processes description
8.2	Manpower and support concept
8.3	Facilities
8.4	Key Performance Indicators for FE
9	Cost Model for ISS Activities

#### 4.14 IN SERVICE SUPPORT MONTHLY REPORT

IPS-230 The Contractor shall submit a ISS Monthly Report that documents all the ISSP foreseen activities. This report shall describe in detail all task performed in the preceding month under the contract covering the main three areas: Engineering Support (ES), Material Management (MM) and Field Engineering (FE) (i.e.: maintenance activities and field services) through appropriate use of DRACAS.

IPS-231 For the repair and replenishment of items at least the following data shall be recorded:

- a. Date and time of occurred failure (actual and/or estimated);
- b. Date and time of reception of request;

- c. Date and time of dispatch;
- d. Date and time of reception;
- e. Part Number equipment/item received;
- f. Serial Number equipment/item received;
- g. Repair activities performed and failure reporting analysis (or diagnose NFF or BER with evaluation cost, proposed solution and details on the disposal);
- h. Time to repair;
- i. Repair cost, including PHS&T;
- j. Date and time of shipment;
- k. Date and time of arrival at return location identified by Purchaser (estimated and actual);
- l. Date and time of closure of request.

IPS-232 The ISS Monthly Report shall report for Engineering Support (ES) all relevant activities performed, dashboard for the KPI evaluation to provide supportability evaluation and performance analysis.

IPS-233 The ISS Monthly Report shall report for Material Management (MM) in terms of:

- a. Repair:
    - i. List of items sent to repair;
    - ii. List of items under repair;
    - iii. List of items sent back.
  - b. Replenish:
    - i. List of items replenished;
    - ii. List of items planned to be used in the next period;
    - iii. List of items proposed for replenishment;
  - c. Consumables:
    - i. List of consumables used;
    - ii. List of consumables planned to be used in the next period;
    - iii. List of consumables planned to be used by the end of contract.
  - d. Test Equipment (TE):
    - i. List of TE with location;
    - ii. List of TE planned to be used in the next period.
  - e. Stock optimization:
    - i. List of items in stock;
    - ii. Optimization proposal.
  - f. The ISS Monthly Report shall report for Field Engineering (FE) in terms of :
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- i. Maintenance scheduled and executed;
- ii. Corrective maintenance performed;
- iii. Manpower involved and facilities issues;
- iv. List of all requests for on-site support, including:
  - v. Date and time of reception of request;
  - vi. Name of the employee(s) sent on-site;
  - vii. Location;
  - viii. Start and end-date and time of support provided;
  - ix. Date and time of closure of request.
- g. List of all software maintenance requests, including:
  - i. Date and time of reception of request;
  - ii. Repair activities performed;
  - iii. Time to repair;
  - iv. Date and time of release of workarounds, patches and maintenance releases;
  - v. Date and time of closure of request.

IPS-234 List of all requests for technical assistance, including:

- a. Date and time of reception of request;
- b. Nature of the request;
- c. Details of SME responding to the request;
- d. Date and time of closure of request;

IPS-235 The ISS Monthly Report shall include the update of the Obsolescence Report.

#### **4.15 HEALTH, SAFETY & ENVIRONMENTAL PROTECTION**

IPS-236 The Contractor shall treat Health and Safety (H&S) as a continuous process which addresses all areas, including where the Contractor shall apply best practices in accordance with EU and respective national H&S legislation for all areas of design, installation, construction and build.

IPS-237 The Contractor shall identify all hazards that exist and shall, as part of this activity, ensure that all personnel (operators and maintainers etc.) are provided with suitably designed and constructed equipment and are trained and provided with any necessary additional equipment to minimize the risk of accidents or injury.

IPS-238 The equipment and installations that are subject to this SOW shall be designed and constructed in such a way that they do not run in a hazardous condition or put human safety at risk.

IPS-239 The Contractor shall conduct a hazard review, consider and evaluate the risks and put in place control measures required to produce a statement with supporting evidence that the risks are As Low As Reasonably Practical (ALARP).

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- IPS-240 The Contractor shall apply engineering principles, criteria, and techniques to identify and eliminate safety hazards in the systems in accordance with MIL-STD-882E.
- IPS-241 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.
- IPS-242 The Contractor shall establish a System Safety Programme in accordance with "MIL-STD-882E, Section 4", to fulfil the safety requirements of the Contract.
- IPS-243 The Contractor shall provide, a **System Safety Program Plan (SSPP)** in accordance with MIL-STD- 882E.
- IPS-244 The Contractor shall describe in the SSPP the risk assessment method.
- IPS-245 The Contractor shall document the procedures to control design, selection, procurement and manufacture of parts and materials. Revisions to the SSPP shall incorporate Purchaser-agreed changes, additions or deletions that have evolved during the conduct of the Programme.
- IPS-246 Safety verification shall be conducted at each site prior to each SAT to ensure compliance with the SSPP. 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 SSPP. The Contractor's responsibilities shall be defined in the SSPP.
- IPS-247 The SSPP shall also include **System Safety Hazard Analysis Report (SSHAR)** as mentioned in MIL-STD- 882E.
- IPS-248 The SSPP shall also define Environmental and Safety Requirements as defined at following sub-paragraphs:
- IPS-249 Environmental requirements shall be implemented and verified by the Contractor in accordance with National laws and regulations.
- IPS-250 The Contractor shall comply with the national legislation concerning job accidents, incident prevention and hygiene at work. The Contractor shall also 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.
- IPS-251 Health and Safety Hazards: The physical presence, operation and maintenance of the system shall pose no health or safety hazards to personnel.
- IPS-252 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.
- IPS-253 Hazard Warning Labels: Equipment warning labels shall be attached wherever there is any potential heavy lifting, 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.
- IPS-254 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:
- a. Gases that combine with the atmosphere to form an acid or corrosive alkali;

- b. Toxic or corrosive fumes that would be detrimental to the performance of the equipment or health of personnel;
  - c. Gases that will produce an explosive atmosphere.
- IPS-255 Equipment shall not contain any asbestos material.
- IPS-256 Glass Fiber Materials: Glass fiber 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.
- IPS-257 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.
- IPS-258 Equipment Edges: Projecting and overhanging edges of equipment items shall be kept to a minimum. Edges and corners shall be rounded.
- IPS-259 Environmental Conditions Indoors, temperature, humidity: Equipment shall function without degradation under the environmental conditions as specified.
- IPS-260 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.
- IPS-261 Any safety related warnings and cautions shall be documented in the related sections of the manuals. Adequate labelling and marking shall be provided on the equipment and systems.
- IPS-262 All equipment and installations provided by the Supplier shall be:
- a. ambient physicochemical and fluids resistant
  - b. new, of high quality and standard manufacturing (unless bespoke product is required), and OEM with proven experience and feedback of supportability performances
- IPS-263 If lifting devices, ladders, safety equipment, special tools or harnesses are required, the Contractor shall provide them.
- IPS-264 The ladders shall be compliant with following standards:
- a. EN 131-1:2015+A1:2019 Ladders. Terms, types, functional uses
  - b. EN 131-2:2010+A2:2017 Ladders. Part 2: Requirements, testing, marking
  - c. EN 131-3:2018 Ladders. Marking and user instructions
- IPS-265 Personal protective equipment (PPE) shall be compliant with Regulation (EU) 2016/425 of the European Parliament and of the Council of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC.
- IPS-266 No special or difficult techniques that require unusual dexterity or skill in removing or installing items can be assumed.
- IPS-267 The equipment and installations provided by the Contractor shall meet requirements stipulated in following publications (including but not limited to following publications), as applicable:
- a. Directive 2001/95/EC of the European Parliament and of the Council of 3 December 2001 on general product safety
  - b. Directive 2001/95/EC of the European Parliament and of the Council of 3 December 2001 on general product safety
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- c. Directive 2014/30/Eu of The European Parliament and of The Council of 26 February 2014 – electromagnetic compatibility
- d. Directive 2014/35/Eu of The European Parliament and of The Council of 26 February 2014 – ‘low voltage directive’
- e. IEC 60950 series: Information technology equipment – Safety
- f. IEC 62821 series: Electric cables - Halogen-free, low smoke, thermoplastic insulated and sheathed cables of rated voltages up to and including 450/750V
- g. IEC 61000 series – Electromagnetic compatibility (EMC)
- h. IEC 60529 – Degrees of protection provided by enclosures (IP Code)
- i. EN 61340-5-1:2016 Electrostatics. Protection of electronic devices from electrostatic phenomena
- j. MIL-STD-882E – Systems Safety
- k. MIL-STD-1472G, DoD Design Criteria Standard, Human Engineering, dated 2012

IPS-268 The above list of standards does not relieve the Contractor from the obligation to comply with other applicable National Standards.

IPS-269 The Contractor shall clearly state which standards shall apply to each of the designed and installed deliveries.

#### **4.16 TRANSFER OF OWNERSHIP**

IPS-270 Transfer of ownership of the system shall occur at FSA when the Purchaser has confirmed final acceptance in writing.

IPS-271 During the period between PSA and FSA, the Contractor shall incrementally transfer the ability to conduct first, second and third level<sup>16</sup> of support from the Contractor staff to the Customer.

IPS-272 Liability for usage induced failures shall hence be transferred to the Customer on successful completion of the PSA.

IPS-273 The Customer shall assume Intellectual Property of the TDCIS design and configuration on successful completion of the PSA. Liability with regard to the function and performance of the system shall remain with the Contractor.

IPS-274 On successful completion of the FSA, ownership and responsibility of the following documents are to be handed over to the Customer:

- a. All Technical Publications covered by Section 4.10;
- b. All Training Materials covered by Section 4.11.5;
- c. The Bill Of Materials (BoM) for all nodes and equipment therein, delivered by the Contractor to Customer, inclusive of PFE.

IPS-275 The Contractor shall ensure all documents transferred to the Customer are labelled with the appropriate protective marking.

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<sup>16</sup> The Customer will be responsible for a portion of the 3<sup>rd</sup> level support, with the remainder to be the Contractor's responsibility. This will be clarified during production of the MTA.

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## 5 DOCUMENTATION

[138] This Section addresses the documentation requirements of the project. The purpose of these requirements is to ensure that the Contractor develops and provides high quality, comprehensive documentation, manuals, and as-built drawings that will enable the Purchaser to operate and maintain the system at all assigned levels of support.

DOC-1 The Contractor shall ensure that all project documentation shall be compliant with the requirements identified in the SOW below.

### 5.1 DOCUMENTATION PLAN

DOC-2 The Contractor shall ensure that all project documentation shall be compliant with the requirements identified in the SOW below

DOC-3 As part of the PIP, the Contractor shall submit a Documentation Plan (DP). The DP shall explain in detail how the Contractor shall fulfil all documentation requirements in this Contract. The DP shall include:

- a. List of all documentation deliverables to be provided and defined in this Contract and it's annexes (including SOW, SRS) , in the form of a Contract Data Requirements List (CDRL) and organised according to the Contract Line Item Number (CLIN) structure of the Schedule of Supplies and Services (SSS);
- b. Schedule of release of all CDRL items, including draft versions (for review) and final versions (for the purpose of acceptance);
- c. Detailed description of the file naming convention in accordance with the requirements in this Section;
- d. Detailed description of the document review process in accordance with the requirements in this Section;
- e. Detailed description of the change control and version control processes through which the Contractor proposes to manage and control change during the life cycle of each documentation deliverable.

DOC-4 Any deviation from the CDRL shall be coordinated with and requires approval by the Purchaser.

DOC-5 Should it be found that there are documentation requirements within the SOW and Annexes, that are not identified in the CDRL, the CDRL shall be updated to reflect this.

### 5.2 DOCUMENTATION FORMAT

DOC-6 The Contractor shall ensure that non-COTS documentation shall neither be marked with corporate logos nor contain warnings limiting the rights to use or reproduction.

DOC-7 The Contractor shall ensure that documentation does not contain warnings limiting the rights to use or reproduce the document. The Purchaser reserves the right to make additional copies of any documentation (including the training documentation) provided under this contract for thier internal use.

DOC-8 All contractual documentation (e.g., change proposals, invoices, etc.) shall be delivered by the Contractor in electronic format unless specified otherwise by the

Purchaser Contractor Officer. The Purchaser reserves the right to request printed versions of any project documentation.

- DOC-9 The Contractor shall ensure that the default software packages for managing projects and processing documentation deliverables are the versions which will be decided at Contract Award by the Contractor:
- a. Microsoft Office Professional;
  - b. Microsoft Project;
  - c. Microsoft Visio Enterprise.
- DOC-10 Every document shall include a hyperlinked index.
- DOC-11 The Contractor shall submit documentation, intended for review by the Purchaser in electronic format:
- a. In the native format compatible with the Purchaser's software packages above; or
  - b. In the Contractors toolset of choice in which case the Contractor shall provide the Purchaser with 5 licenses of each tool/application used.
  - c. All project management documentation (e.g., plans, schedules, reports, etc.) shall be delivered by the Contractor as electronic, editable copies in MS Office format. This format shall be agreed with the Purchaser.
- DOC-12 The Contractor shall submit documentation, intended for review by the Purchaser, with each modification identified through the change tracking feature or otherwise marked in the revision table.
- DOC-13 The Contractor shall submit all final and accepted versions of documentation deliverables in electronic format, as PDF with Optical Character Recognition enabled (OCR), accompanied with a Microsoft Office version for editing purposes.
- DOC-14 The Contractor shall ensure that all documents produced under this Contract shall use sans-serif fonts (e.g. Arial, Helvetica, Calibri, etc.), and obey the following principles:
- a. Headings shall be numbered and use bold font-types of sizes higher than the body text (the higher the Heading in the document hierarchy, the larger the font-sizes);
  - b. No document shall use Headings below level 6 (i.e. 1.1.1.2.3.1 Heading Text);
  - c. Body text (under the headings) shall not use fonts smaller than April 10 pt. (or equivalent size if another font type(s) is (are) selected);
  - d. Any graphic material generated under this Contract, including network diagrams, shall not use font sizes smaller than Arial 8 (or equivalent size if another font type(s) is (are) selected).
  - e. Larger font sizes other than those specified above shall be selected if the corresponding text or drawing is to be reduced in size when embedded in the document, in order to guarantee that the PDF output keeps the font size as specified.
  - f. Every page shall include a header and footer indicating the highest classification of content on that page using one of the following labels: CONFIDENTIAL, RESTRICTED (sensitive information identifying e.g. a named location or security assessment), or UNCLASSIFIED.
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- DOC-15 The Contractor shall ensure that all documentation produced under this contract shall adhere to the same presentation style (cover pages, approval pages, headers, footers, headings and paragraphs, font types and sizes within headings and paragraphs), irrespective of the source of the document within the Contractor's team, including any except COTS equipment documentation. SubContractor documentation.
- DOC-16 The Contractor shall ensure that one set of printed System Administrator Guides (SAG) printed on water-proofed paper shall be delivered for each Node and these shall contain any deployment aspects for the Node and Trailer. In addition, all COTS Documentation, manuals and drawings shall be provided in electronic format, both in PDF (OCR) format and, for non-COTS documentation, in an editable Microsoft Office/Visio format.
- DOC-17 The Contractor shall ensure that Manuals shall take into consideration:
- DOC-18 The information gained through the Training Needs Analysis (TNA) to ensure that all operation and maintenance tasks are identified and covered by the documentation.
- DOC-19 As-built drawings are provided for all CIS-components, CIS ancillaries and software, such as tents, power distribution, HVAC, BC filters, compressors, and generators, but NOT on PFE (crypto equipment, general use software, etc.). Manuals on PFE will be delivered as PFE manuals together with the PFE. However, manuals and drawings shall cover all the system specific interfaces to/from PFE or any external asset.
- DOC-20 All electronic copies shall be delivered in a format which is best suited for review and maintenance by the Purchaser (e.g., Project Master Schedule in MS Project format, Project Progress Reports in MS Word). In general the following guidelines shall be used:
- a. Microsoft Word shall be used for generating text document;
  - b. Microsoft Excel shall be used for tabular or matrix data;
  - c. Microsoft Visio shall be used for drawings;
  - d. Microsoft Project shall be used for schedule;
  - e. and Microsoft PowerPoint shall be used for briefings;
  - f. The rest of deliverables will be furnished as electronic copy of the agreed tools/media used.
- DOC-21 The Contractor shall ensure that all documentation, shall be provided in English.
- DOC-22 The Contractor shall ensure that documentation convention follows:
- a. For numbers appearing in textual documents shall be a comma to be the thousands separator and a period to be the decimal separator (e.g., 1,365,276.24).
  - b. That dates appearing in free text (e.g., quoting dates of meetings) shall be day-month-year and not month-day-year.
  - c. The first page shall show the document title, project title, contract number as well as version number and issue date, if applicable, and which shall also be shown on each subsequent page bottom.

- d. Developed documentation shall contain a Table of Contents. It shall be noted that depending on the type of document, a Table of Content might not be required. This shall be agreed between the Purchaser and Contractor beforehand.
- e. Documents shall contain a preface, containing details of related documents and information on how to navigate the document.
- f. Where documents contain many complex special ised or strongly domain oriented terminologies these shall be defined in a glossary.

DOC-23 Each document shall contain the following information for identification:

- a. Version of the document and version history;
- b. Due date;
- c. Delivery date;
- d. CLIN number;
- e. Status (e.g., accepted/approved/draft).

DOC-24 The Contractor shall remain responsible for updating the documentation that is affected by the changes in the system requirements, design, or support arrangements throughout the project.

DOC-25 The Contractor shall use filenames for all documentation deliverables in compliance with the following filename convention:

- a. [NU|NR]\_[Contract number]\_[Contract Line Item number]\_[Name of deliverable]\_[v0.x|v1.0].[filename extension]

DOC-26 Example of a compliant filename:

- a. NU\_CO-14760-TDCIS\_3.2.1\_QA Plan\_v0.1.pdf.

DOC-27 The fields used in the filename convention shall be used as follows:

- a. [NU|NR] is the classification of the document: NATO Unclassified or NATO Restricted;
- b. [Contract number] is the official Purchaser contract number "CO-14760-TDCIS";
- c. [Contract Line Item number] is the CLIN used to identify the deliverable in the Schedule of Supplies and Services (SSS);
- d. [Name of deliverable] is the Contractor proposed, Purchaser agreed designation of the deliverable;
- e. [v0.x|v1.0] is the version number in the range (v0.1, v0.2, ..., v0.9, v0.10, v0.11, ...) for drafts not eligible for acceptance and with v1.0 only for the final deliverable;
- f. [filename extension] is the standard filename extension, but ".zip" may be used to aggregate multiple files.

DOC-28 The Contractor shall ensure that COTS documents, such as a vendor supplied user manual, shall retain their original filenames and shall hence not be renamed according to the above filename convention.

**5.3 DOCUMENT ACCEPTANCE PROCESS**

DOC-29 All documentation shall be subject to Purchaser approval.

DOC-30 Documentation shall be distributed as follows:

- a. For all documents unless otherwise instructed: an electronic copy to the Purchaser’s Project Manager;
- b. For contractual documents: in addition to one hard copy and an electronic copy to the Purchaser’s Contracting Office;
- c. With the exception of contractual documents, an electronic copy to the Collaborative Environment.

vi. Table 22 – Documentation Review Process

vii. Actors viii. Time	ix. Contractor	x. Purchaser
T = 0	Submit document to Purchaser	
T + 2 wks		Review & send any comments to Contractor: otherwise document finalised.
T + 4 wks	Update document based on Purchaser comments	
T + 5 wks		Document updates either finalised or if necessary further <u>minor</u> comments returned to Contractor
T + 6 wks	Further updates if required	
T + 7 wks		Accepts minor comments and document accepted and finalised.

xi.

DOC-31 "One week" and multiples thereof shall be understood as 5 working days, Monday - Friday. This mainly applies to the period of Purchaser's review of a document, from the time the document is uploaded or delivered by the Contractor and vice versa.

DOC-32 Approval of a document or other deliverable shall not be interpreted to imply any Purchaser endorsement of the content. It shall remain the sole responsibility of the Contractor to meet the full system performance requirements and to prove such performance through the regime of testing and other assurance mechanisms set forth in the Contract and it shall be the sole responsibility of the Contractor to remedy any performance shortfall in the event of any identified deficiency in terms of the contract functional and/or performance requirements. The Contractor's responsibility in this regard extends beyond FSA through warranty, responsibility for any latent defects.

DOC-33 All the documentation within the scope of this project shall be consistent in terms of content. Any inconsistencies that are detected between documents at any time until the end of this project shall be corrected upon Purchaser notification.



- DOC-34 The Contractor shall provide a first draft (version 0.1) of each deliverable for Purchaser review by the date specified in the Schedule of Supplies and Services or as agreed between the Purchaser and Contractor.
- DOC-35 The first draft shall be substantially complete and correct, and delivered in accordance with the delivery dates specified in the Work Package and the Schedule of Supplies and Services. To ensure the completeness and correctness, the Contractor shall complete the internal review cycle between the related functions before presenting a version to the Purchaser.
- DOC-36 The Purchaser reserves the right to return without review a document that has significant deficiencies.
- DOC-37 The Contractor shall not rely on the Purchaser review to fill in deficiencies or obtain missing Purchaser information.
- DOC-38 The Contractor shall resubmit the document as a revised draft incorporating the Purchaser's comments within two weeks after receipt, unless specified differently in the Work Package.
- DOC-39 The Purchaser shall provide comments, corrections, and suggested changes to the Contractor within two weeks of receipt, unless specified differently in the Work Package. If the Contractor submits more than one document (or more than 400 pages of content in total) for review at the same time, the Purchaser will reserve the right to extend the review period accordingly.
- DOC-40 The Contractor shall provide the Final (version 1.0) document within two weeks of receipt of the Purchaser's comments on the revised draft, unless specified differently in the Work Package.
- DOC-41 The Contractor shall include and integrate all document review and acceptance activities in the overall Project Master Schedule (PMS) of the PMP in the PIP.

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## 5.4 DRAWINGS

- DOC-42 The Contractor shall provide **Engineering Drawings** of all Computer Aided Design (CAD) drawings employed in the procurement and, or manufacture the following of TDCIS associated items:
- a. Equipment and rack mounting brackets;
  - b. Mechanical equipment interfaces;
  - c. Proprietary cable sections;
  - d. Proprietary mechanical cable connections and interfaces.
- DOC-43 The Contractor shall provide **As-Built Installation Drawings** that reflect the complete installation conducted by the Contractor for each type of system, they shall comprise:
- a. Layout Plans showing the locations of all Contractor installed assets;
  - b. Cabling Plans showing all Contractor installed cabling, per security classification, clearly identifying the location and labelling of each cable, together with the terminations at both ends and the use of the cable;
  - c. Rack Layout Plans for all Contractor installed racks;

- d. System Configuration Plan showing all installed assets with all their interfaces and interconnections, both internal and external;
- e. Cross-referenced and consistent with each other and with any other documents provided under this Contract, such as manuals and training material.
- f. Representing technical networking and service configuration diagrams shall use layered views, as follows:
  - g. One layer shall be created for the physical view, covering hardware, ports and cable-connections and associated identification markings (including also signal flow, electrical power and grounding);
    - i. One layer for the logical view, covering VLANs, virtual servers, logical links;
    - ii. One layer for the addressing and routing information;
    - iii. Service view schematics.
  - h. Technical Installation drawings should be precise, detailed and scaled drawing in accordance with applicable international norms (i.e. ISO 128, ISO 129, ISO 5455, inter alia). The technical drawings shall include elevations, plans, sections and 3D views. Dimensions and identification of most significant features are mandatory, and:
    - i. Provide the necessary drawings/schematics, specifications, wiring diagrams, etc., to allow the operators to troubleshoot, and fully understand, the design and operation of the particular equipment;
    - ii. Supplement but do not substitute User Manuals and/or Maintenance Manuals and thus be expected to be referenced in the latter as a way of providing specific details on a particular piece of equipment.

## 6 CONFIGURATION MANAGEMENT

### 6.1 OVERVIEW

[139] This Section addresses the Configuration Management (CM) requirements of the project. The purpose of these requirements is to ensure that the Contractor establishes and executes NATO-compliant and effective configuration management during the execution of the project until the end of Warranty.

CMG-1 The Contractor shall establish a CM program compliant with the STANAG 4427 "Configuration Management in System Life Cycle Management" and ACMP-2009 "Guidance on Configuration Management".

CMG-2 The Contractor shall establish and maintain an effective CM organisation to implement the CM program and manage the CM functions (configuration identification and documentation, configuration control, configuration status accounting, configuration audits).

CMG-3 The Contractor shall be responsible for the application of all necessary CM procedures throughout the duration of the Contract.

CMG-4 The Contractor shall maintain a version control system as part of its CM program.

CMG-5 The Contractor shall ensure that there is full traceability through all baselines back to the functional baseline.

CMG-6 The Contractor shall populate and maintain the Baselines and their CI's in the CMDB.

CMG-7 The Contractor shall deliver a fully populated CMDB to the Purchaser before the Critical Design Review (CDR).

CMG-8 The Contractor shall then deliver a fully updated CMDB to the Purchaser before FSA.

CMG-9 All Contractor activities and milestones related to CM shall be identified and included in the Project Master Schedule (PMS) of the PMP in the PIP.

### 6.2 CONFIGURATION MANAGEMENT PLAN

CMG-10 The Contractor shall establish, execute, and maintain an effective **Configuration Management Plan (CMP)** throughout the period of performance of this Work Package. The Contractor shall organise review meetings for CM progress starting from the first draft of CMP.

CMG-11 The CMP shall assure the establishment and maintenance of configuration item records, configuration item life cycle records, and baselines throughout the duration of the contract and provide assurance that all changes to the baselines are performed through a formal change control process once a baseline has been established and agreed.

CMG-12 The CMP shall be structured as a living document subject to revisions and updates, as required. The Contractor shall place the plan under configuration control prior to its implementation and for the life of the Contract.

CMG-13 The CMP shall identify, document and justify the organisational structure, roles and responsibilities, tasks, milestones and procedures to be used by the Contractor to implement the CMP and fulfil the requirements of this Contract.

- CMG-14 The CMP shall be compatible and consistent with all other plans, specifications, standards, documents and schedules.
- CMG-15 The CMP shall include the following Sections :
- a. Introduction;
  - b. Organisation;
  - c. Configuration Identification and Documentation;
  - d. Baselines;
  - e. Configuration Control;
  - f. Interface Management;
  - g. Change Request Process;
  - h. Configuration Status accounting;
  - i. Configuration Audits and Reviews;
  - j. Management Tools.
- CMG-16 The Contractor shall provide in the CMP the rationale and criteria for the CI identification and CI numbering for the Purchaser approval, based on the criteria for selection of CIs detailed in [NATO ACMP 2009, 2017]

### **6.3 CONFIGURATION MANAGEMENT BASELINES**

- CMG-17 The Contractor shall provide and maintain Configuration Baselines throughout the performance period of the project. The following baselines shall be created and maintained:
- a. Functional Baseline (FBL);
  - b. Allocated Baseline (ABL);
  - c. Product Baseline (PBL);
  - d. Operational Baseline (OBL);
- CMG-18 The Contractor shall be responsible for any consistency between the configuration baselines throughout the project. Any updates or changes shall be formally introduced with full revision control.

#### **6.3.1 FUNCTIONAL BASELINE**

[140] The Functional Baseline (FBL) is a set of documents that specifies the functional and non-functional requirements of a service or product and that is used as the approved basis for comparison.

- CMG-19 The Contractor's developed FBL shall be derived from the SRS and shall be established at the successful completion of the SRR with the approved updated SRS;
- CMG-20 The Contractor shall provide the frozen FBL for Purchaser approval following the approval of Final SRR Report. Any changes on the approved FBL shall be requested through ECP;
- CMG-21 The Contractor shall use an industry recognised requirements management tool to support requirements management;

- CMG-22 The Contractor shall provide access to the Requirements Management tool if requested by Purchaser to have an overview of the requirements management system of the Contractor;
- CMG-23 The Contractor shall provide the exported requirements lists from the Requirements Management tool in FBL documentation.

### **6.3.2 ALLOCATED BASELINE**

- [141] The Allocated Baseline (ABL) is a set of documents that specifies the design of a service or product and is used as the approved basis for comparison.
- CMG-24 The Contractor's design in the ABL shall meet the functional and non-functional requirements allocated in the FBL.
- CMG-25 The Contractor's ABL set of documents and artefacts shall contain (but is not limited to) the following documents:
- a. System Design Specification;
  - b. Test Plan;
  - c. Requirement Traceability Matrix (RTM).
- CMG-26 The Contractor's ABL shall be established at the successful completion of the CDR.

### **6.3.3 PRODUCT BASELINE**

- [142] The Product Baseline (PBL) is a set of products and/or services, including supporting documents, which is used as the approved basis for comparison.
- CMG-27 The Contractor's PBL shall meet the functional and non-functional requirements allocated in the ABL and the design of the FBL.
- CMG-28 The Contractor's developed a PBL shall be established after successful completion of the FAAT. It reflects the "as-built" configuration of the system.
- CMG-29 The Contractor shall provide the CMDB to reflect the PBL with all related documentation, software, hardware, configuration files, services and any other related information or deliverable necessary to establish the PBL completely.

### **6.3.4 OPERATIONAL BASELINE**

- [143] The Operational Baseline (OBL) is a set of documents that specifies the products and/or service in its operational environment 'as-deployed' ("as-delivered") configuration of the system.
- CMG-30 The Contractor shall develop an OBL initially established after successful completion of the PSA and then finally established after successful completion of FSA.
- CMG-31 The Contractor shall provide the CMDB to reflect the OBL upon completion of the FSA.

## **6.4 CONFIGURATION ITEM IDENTIFICATION**

- [144] The Purchaser reserves the right to modify the CI structure prior to its baselining.
- CMG-32 The Contractor shall identify and describe Configuration Items (CI's):
- a. Hardware (HCI);

- b. Software (SCI);
  - c. Documentation (DCI).
- CMG-33 The Contractor shall also identify any PFEs provided for implementation as CI's and integrate them within their CM and related part of the CI structure. The revision or change information for CI control will be provided by the Purchaser.
- CMG-34 As the initial CMDB product release, the Contractor shall provide a full CI-tree structure prior to CDR. The CI-tree shall be reviewed by the Purchaser for acceptance. The CI-tree shall identify all CI's and structure them in a functional tree hierarchy from system down to sub-system to assembly down to replaceable item level (i.e. LRUs; SRUs down to replaceable card/port level; software modules).
- CMG-35 The CIs shall be chosen in a way to assure visibility throughout the development effort and easy support to the operational system after acceptance.
- CMG-36 Every CI and its associated documentation shall have a unique identifier and name.
- CMG-37 All COTS, adapted, and developed software shall be designated as Computer Software CIs (CSCIs).
- CMG-38 All subsystem configuration files (in PCA, CCA, MMA, Management subsystems, and in Reference and Testing Facility) shall be designated as CSCIs.
- CMG-39 All stand-alone, bespoke documentation that is not a specification of a CI, but required to operate and maintain the system shall be designated as Documentation CIs (e.g. non-COTS training material and manuals).
- CMG-40 The Contractor shall create a Configuration item (CI) – tree. The Draft CI tree shall be delivered 4 weeks before Critical Design Review (CDR) and Final CI tree shall be delivered 4 weeks before First Article Acceptance Test (FAAT).

## **6.5 CONFIGURATION CONTROL**

- CMG-41 The Contractor shall be fully responsible for the Configuration Control of all CI's and baselines until successful completion of FSA.
- CMG-42 The Contractor shall be responsible for issuing in a timely manner, as required by this SOW, all approved changes and revisions to all baseline documents included in the Contract. This includes changes originated both by the Contractor and the Purchaser.
- CMG-43 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.
- CMG-44 The Contractor shall define the Configuration Baseline Change procedures and shall submit Notice of Revision or Request for Deviations and Waivers when required and approved by the Purchaser. All proposed changes to the baselines (FBL, ABL, PBL, OBL) shall be submitted to the Contractor's Configuration Control Board (CCB) prior to the submission to the Purchaser for approval. The Contractor's internal CCB process shall be defined in the CM Plan. Additionally, the Contractor shall propose an external CCB process to communicate and discuss the changes with Purchaser before officially presenting the changes for approval.

## **6.6 CHANGE REQUEST**

[145] Change requests can be submitted in the form of Engineering Change Proposals (ECP) or Requests for Deviation (RfD) or Requests for Waiver (RfW), when required.

CMG-45 The Contractor shall record all change requests in a change request register to be identified in CMP using forms designed by the Contractor for this purpose and submitted for approval by the Purchaser prior to use.

CMG-46 The Contractor shall ensure that all design changes shall be appropriately reflected in the technical documentation by the issue of appropriate changes or revisions.

### **6.6.1 ENGINEERING CHANGE PROPOSALS**

CMG-47 The Contractor shall assign a priority rating of Emergency, Urgent or Routine to the target times for processing when submitting ECPs. Changes to the Contractor's baselined CIs shall be processed as either Class I or Class II ECPs.

CMG-48 The Contractor shall ensure that any extensions to the target times for processing when submitting are processed as either Class I or Class II ECPs, namely:

CMG-49 Class I ECPs shall have to be mutually agreed upon by the Contractor and Purchaser. Extensions to the target times for processing Class I ECPs shall be mutually agreed upon by the Contractor and Purchaser;

CMG-50 Class II ECPs shall be submitted by the Contractor to the Purchaser for review and classification concurrence prior to implementation.

CMG-51 If the Purchaser's representative does not concur in the classification, Class I ECP procedures shall be applied by the Contractor to the ECP and then formally submitted to the Purchaser for approval or rejection.

CMG-52 The ECP shall at least include the following information:

- a. Reference Number;
- b. Requirement affected;
- c. Nature of change;
- d. Rationale for the change;
- e. Impact of change / CIs affected;
- f. Description of how the change will be reflected in the delivered system's cost, schedule, and/or performance, including any trade-offs that shall be considered in both: status and priority

CMG-53 The Contractor shall provide changes/revisions for consideration and approval to the Purchaser in accordance with ECP procedures.

CMG-54 The Contractor shall submit any ECP affecting FBL to the Purchaser for review, classification concurrence and approval. No Class I ECP affecting the FBL, including a change to a baseline document shall be approved and implemented by the Contractor until it has been accepted by the Purchaser.

### **6.6.2 REQUESTS FOR DEVIATION & REQUESTS FOR WAIVER**

[146] Requirements for deviation: prior to the manufacture of an item, if it is considered necessary to temporarily depart from mandatory requirements of a specification or

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drawings, for a specific number of units or a specified period of time, the customer can authorize a request from the contractor. Items must not be delivered incorporating a known departure from documentation unless a request for deviation has been approved. [ASD S3000L]

- [147] Requirements for waiver: supplies or services, which do not conform in all respects to the contractual requirements, shall normally be rejected. An item, which through error during manufacture does not conform to the specified configuration documentation, shall not be delivered to the customer unless a waiver has been processed and granted. [ASD S3000L]
- CMG-55 The Contractor shall be aware that permanent departures from a baseline shall be accomplished by ECP action rather than by Requests for Deviation (RFD)

## 6.7 DEFICIENCY REPORTS

- CMG-56 The Contractor shall establish and maintain a process for reporting, tracking, and resolving deficiencies in the Developmental and Product Baselines. **Deficiency Reports (DRs)** shall document problems during the design, configuration, implementation, or operation of the system.
- CMG-57 DRs shall be closed when the identified problem is resolved through procedure or other action that does not affect the system baselines, or when a corresponding Change Request is opened to correct the deficiency through a change to a baseline.
- CMG-58 The **Deficiency Log** shall be maintained by the Contractor and contain at least the following information:
- A serial number for each deficiency;
  - Description of the deficiency;
  - Test and test case or event under which the deficiency was first observed;
  - Date of the observation of the deficiency and expected date of its correction;
  - The personnel raising and endorsing the observation;
  - Any clearance action taken such as repair and testing, notification, receipt of a written reply from the Contractor;
  - The authorised personnel endorsing the correction, and the date of correction;
  - The Contractor's proposed way forward, in case the deficiency remains, with target dates and description of the intended resolution strategy.
- CMG-59 The Deficiency Log shall be first created at the time of First Articles Acceptance Testing (FAAT) and shall remain updated at PSA and then until successful completion of last batch's FSA.
- CMG-60 It shall be noted that during testing or other inspection procedures, the Purchaser may observe perceived deficiencies. These Purchaser observations shall be included in the Contractor's Deficiency Log, and appropriately documented.

## 6.8 CONFIGURATION STATUS ACCOUNTING

- [148] Configuration Status Accounting: the CM function that formalizes the recording and reporting of the established product configuration information, the status of requested changes, and the implementation of approved changes including changes occurring to product units during operation and maintenance [ACMP-



2009]

- CMG-61 The Contractor shall be fully responsible for the Configuration Status Accounting (CSA) for all baselines and CIs.
- CMG-62 The Contractor shall propose the format of **CSA report** in the CMP for Purchaser's approval.
- CMG-63 The Contractor shall deliver CSA reports to the Purchaser both as part of management and specialist products in this contract and also as standalone documents at the Purchaser's request.
- CMG-64 At the end of the Contract, the Contractor shall deliver a set of final CSA reports for each CI in both hard copy and in electronic media.
- CMG-65 The Contractor shall provide and maintain its **CSA database** until successful completion of last batch's FSA.

## 6.9 CONFIGURATION AUDITING

- CMG-66 Before each configuration audit, the Contractor shall provide the Purchaser with all baseline documentation required to perform the configuration audit. At each audit, the Contractor shall make available the technical personnel capable of answering questions from the Purchaser's auditor.

### 6.9.1 PHYSICAL CONFIGURATION AUDITS

- [149] Physical Configuration Audit (PCA): a formal examination to verify that a configuration item has achieved the physical characteristics specified in its product configuration information. [ACMP-2009]
- CMG-67 The Contractor shall organise and support Purchaser witnessed **Physical Configuration Audits (PCA)** to demonstrate that the actual status of all CIs matches the authorized state of CIs as registered in the CSA Reports, to occur before the Provisional Systems Acceptance (PSA) to include at least:
- CMG-68 A full inventory check of all equipment ,software and documentation delivered on site, including auditing of equipment and cable labelling and marking, safety marking and warnings, part numbers and serial numbers;
- CMG-69 Verification of manuals and training material to assess consistency between documentation and equipment and software found on site;
- CMG-70 Verification of design configuration specification against equipment and software found on site;
- CMG-71 Verification of all change requests against equipment and software found on site
- CMG-72 The Contractor shall draft and deliver a **PCA Report** not later than two weeks after each PCA, summarizing the results of the audit and for the Purchaser's acceptance.
- CMG-73 The Contractor shall solve any deficiencies found during a PCA within the agreed timeframe and update the baseline accordingly.

### 6.9.2 FUNCTIONAL CONTROL AUDITS

- [150] Functional Configuration Audit (FCA): a formal examination to verify that a configuration item has achieved the functional and performance characteristics specified in its product configuration information. [ACMP-2009]

- CMG-74 The Contractor shall organise and support Purchaser witnessed **Functional Configuration Audits (FCA)** upon the delivery of the first of each configuration type, to occur before the Provisional Systems Acceptance (PSA), to demonstrate that each of the technical requirements have been satisfied.
- CMG-75 For the purposes of FCA before each testing activity and after the changes based on the tests, the Contractor shall demonstrate the configuration documented is the same with the configuration installed in the physical system. This shall entail the demonstration of HW and SW configuration.

## **6.10 CONFIGURATION MANAGEMENT DATABASE**

- CMG-76 The Contractor shall employ a Configuration Management System (CMS) incorporating the Configuration Management Database (CMDB).
- CMG-77 The Contractor shall propose a document repository method within the scope of its CMDB solution.
- CMG-78 The Contractor shall deliver a fully populated CMDB to the Purchaser before PSA.
- CMG-79 The CMDB shall be in a non-proprietary format, unless otherwise stated by the Purchaser, and free of any use restrictions to the Purchaser.
- CMG-80 The Contractor shall allow the Purchaser access to the Contractor's CMDB and to the status of all baselines, Configuration Items, Configuration Item Records and Change Records at all times during the execution of the contract.

## 7 QUALITY ASSURANCE AND CONTROL

### 7.1 OVERVIEW

- [151] This Section addresses the Quality Assurance (QA) and Quality Control (QC) requirements of the project. The purpose of these requirements is to ensure that the Supplier provides all deliverables on time and at the required level of quality by utilising a professional, best practice quality assurance framework and through internal quality control independent from the Supplier's project organisation. A second objective is to minimise the duration of the review cycles and decrease the review workload by ensuring that the Supplier provides mature deliverables only.
- [152] Quality Assurance (QA) is a procedure or set of procedures intended to ensure that a product or service under development meets specified requirements.
- [153] Quality Control (QC) is a procedure or set of procedures intended to ensure that a manufactured product or performed service adheres to a defined set of quality criteria or meets the requirements of the Purchaser.
- [154] Under this contract the QA process is intended as Quality Assurance and Control Process. The term Quality Assurance will include also the Quality Control definition.
- [155] The Purchaser reserves the right to perform Reviews and Quality audits at any of the Contractor (or Sub-Contractor(s)) facilities. Audit activities at Sub-Contractor's facilities do not relieve the Contractor and Sub-Contractor from any contractual quality responsibilities.
- QAP-1 The Contractor's shall comply to its internal Quality Assurance process and systems with STANAG 4107 "Mutual acceptance of Government Quality Assurance and usage of the Allied Quality Assurance Publications (AQAP)".
- QAP-2 If any sub-contracted quality resources are used, the Contractor's Quality Assurance Process shall describe the controls and processes in place for monitoring the sub-Contractor's work against agreed timelines and levels of quality.
- QAP-3 The Contractor shall transfer to the Purchaser's auditors all information deemed necessary to perform the activities, on his own initiative or on request by Purchaser's auditors.
- QAP-4 A non-exhaustive list of information that the Contractor shall transfer to the Purchaser's auditors includes minutes of meetings, planning documents, source code, requirements documents, and database, design, test and other technical documentation.
- QAP-5 Based on the Audit results if there are any disconformities or irregularities with the contract requirements, The Contractor shall immediately make necessary corrections and take necessary precautions to ensure the satisfaction of the requirements.
- QAP-6 The Contractor shall ensure that all QA activities and milestones are identified and included in the Project Master Schedule (PMS) of the PMP in the PIP.

### 7.2 QUALITY ASSURANCE PLAN

- QAP-7 The Contractor shall establish, execute, and maintain as a living document an effective **Quality Assurance Plan (QAP)** throughout the period of performance of this Contract. The Contractor's QA Process shall be described in the QA Plan. The

process is subject to approval by the Purchaser, or its delegated representative(s), whenever it does not meet the Quality Assurance requirements that are stated in this contract.

- QAP-8 The Contractor shall organise **QA Review meetings** starting from the first draft of QAP. The location of the first meeting shall be Contractor's facilities and ad-hoc meetings shall be arranged upon agreement.
- QAP-9 The Contractor shall maintain a **QA Logbook** during the lifetime of the project in which records are kept accounting for all QA-activities, most notably all QA reviews. All accounting shall be done through dating and sign off by the responsible QA person. The QA Logbook shall enable the Purchaser to verify if and when a deliverable has been QA reviewed and by whom and with what result.
- QAP-10 The Contractor shall establish and maintain an effective QA organisation to implement the QAP and manage the QA independently of the management of the project.
- QAP-11 The Contractor's designated Quality Assurance Manager shall ensure that all required roles, responsibilities, processes and control mechanisms are identified and implemented to make sure that all the functional, non-functional requirements within the scope of the contract are analyzed, planned and satisfied.
- QAP-12 The QAP shall describe the Contractor's QA organisation, QA programme, roles and responsibilities and procedures to ensure that all activities are performed in accordance with the requirements of this Contract.
- QAP-13 The QAP 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.
- QAP-14 The QAP shall apply to all hardware, software, documentation, activities, services and supplies that are designed, developed, acquired, maintained or used, including deliverable and non-deliverable items.
- QAP-15 The QAP shall also ensure that the exchange of deliverables from the Supplier to the Purchaser shall be adequately controlled, and that no deliverables shall be presented by the Supplier without adequate quality control and sign-off by the Supplier's QA Manager.
- QAP-16 The QAP shall be compatible and consistent with all other plans, specifications, standards, documents and schedules, which are utilized under this Contract.
- QAP-17 All Contractor's 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.
- QAP-18 The QAP and all related QA procedures shall be subject to Purchaser approval.
- QAP-19 The Contractor shall maintain a QA log during the lifetime of the project in which records are kept accounting for all QA-activities, most notably all QA reviews. All accounting shall be done through dating and sign off by the responsible QA person. The QA log shall enable the Purchaser to verify if and when a deliverable has been QA reviewed and by whom and with what result.

### 7.3 QUALITY ASSURANCE PROCESS

- QAP-20 The Quality Assurance (QA) implemented by the Contractor shall apply to all hardware, software (including firmware) and documentation being developed, designed, acquired, integrated, maintained, or used under the Contract. This includes non-deliverable test and support hardware and software.
- QAP-21 The Contractor's QA Process shall ensure that procedures are developed, implemented and maintained to adequately control the development, design, production, testing and configuration of all deliverables.
- QAP-22 Personnel performing QA functions shall have specific documented definitions of their assigned duties. In no case shall the QA personnel managing or performing QA functions be the same personnel responsible for performing other tasks that are reviewed by QA.
- QAP-23 The Contractor shall demonstrate, with the Quality Assurance process, that the processes set up for design, develop, produce and maintain the product will assure the product will meet all the requirements.
- QAP-24 If sub-contracted quality resources are used, the Contractor's Quality Management Process shall describe the controls and processes in place for monitoring the Sub-Contractor's work against agreed timelines and levels of quality.
- QAP-25 The Contractor shall assure that all the test and procedure used to demonstrate the requirements will be monitored and controlled under the QA process.
- QAP-26 The Contractor shall document all the identified risks in accordance with Risk Management.
- QAP-27 The Contractor shall periodically review the QA process and audit it for adequacy, compliance and effectiveness, and report any changes to the Purchaser POC.
- QAP-28 The Contractor shall on request provide the Purchaser with a copy of any subcontracts or orders for products related to the contract.
- QAP-29 The Contractor shall notify Purchaser if a subcontract or order has been identified as constituting or involving risk.
- QAP-30 The Contractor shall flow down the applicable contractual requirements to Sub-Contractors by referencing the stated contractual requirement, including relevant AQAP(s).
- QAP-31 The Contractor shall be responsible for ensuring that the procedures and processes required to fulfil contract requirements are fully implemented at the Sub-Contractor's facilities.

### 7.4 CERTIFICATE OF CONFORMITY

- [156] The Certificate of Conformity (CoC) is a document, signed by the Contractor, which states that the product conforms with associated contractual requirements and regulations.
- [157] The CoC verifies the process quality-enabled items produced or shipped comply with test procedures and quality specifications prescribed by the customer. It presents data derived from quality management information.
- QAP-32 The Contractor shall be solely responsible for the conformance to requirements of products provided to the Purchaser.

- QAP-33 The Contractor shall deliver **Certificate of Conformity (CoC)** for all HW and SW released products, all COTS SW (including firmware) and all HW released by the COTS Vendors.
- QAP-34 Any CoC delivered by the Contractor shall be part of the acceptance data package of the product and shall be provided to the Purchaser before the start of any Site Acceptance Tests.
- QAP-35 The Contractor shall ensure that as an enabler for CoC, the qualification testing regime includes, as a minimum, the following:
- a. TEMPEST Testing;
  - b. Electro-Magnetic Compatibility (EMC) Testing;
  - c. General Environmental Testing;
  - d. Water/Dust Ingress Testing;
  - e. Operational Robustness Testing;
  - f. Mechanical Environmental Testing;
  - g. Environmental Control Testing;
  - h. Biological & Chemical Testing;
  - i. Transportation Testing;
  - j. Physical Functional System Testing;
  - k. Product Safety Testing;
  - l. User Interface Testing.

## 8 TEST, VERIFICATION & VALIDATION

### 8.1 INTRODUCTION

- [158] This Section details the Test, Verification, Validation (TVV) processes and requirements to be applied and performed under the Contract, which are required for the verification and validation of the requirements set forth under the Contract by the Purchaser.
- [159] All deliverables supplied by the Contractor under the Contract shall be verified and validated to ensure they meet the requirements of this contract. Both fitness-for-use and fitness-for-purpose will be assessed using a quality-based approach.
- [160] The verification and validation approach will not only involve delivered equipment, but also interfaces and interoperability with existing NATO and/or national equipment, here considered as Purchaser Furnished Equipment (PFE).
- [161] The project requires a set of TVV activities to verify its compliance with the Contractual requirements set forth in the SOW and in the SRS (Annex to the SOW).

### 8.2 TEST, VERIFICATION & VALIDATION ACTIVITIES

- TVV-1. All information items used during the verification and validation activities are to be handled according to their security classification. Guidance is provided in this SoW, under the security Section.
- TVV-2. The Contractor shall have the overall responsibility for meeting the TVV requirements and conducting all related activities. This includes the development of all TVV documentation required under the Contract, the conduct of all independent verification, validation and assurance events, and the evaluation and documentation of the results.
- TVV-3. All deliverables supplied by the Contractor under the Contract shall be verified and validated to meet the requirements of this contract. All document-based deliverables shall be produced in a manner compliant with the templates provided by the Purchaser. In particular:
- TVV-4. The Contractor shall perform the verification activities within each Build Process;
- TVV-5. The Contractor shall perform verification to confirm that each element properly reflects the specified requirements, design, code, integration and documentation;
- TVV-6. The Contractor shall support Purchaser led Validation Activities to confirm that the solution is fit for purpose.
- TVV-7. The Contractor shall be responsible for the planning, execution and follow-up of all TVV events. The Purchaser will assist in preparations by reviewing and providing feedback on all Contractor produced configuration items. The Purchaser will also provide testing and engineering Subject Matter Expertise (SME) during all TVV events to witness and assist with these events.
- TVV-8. The Contractor shall demonstrate to the Purchaser that there is a testing process in place for the project, supported by Contractor Quality Assurance (QA).
- TVV-9. Where requested by the Purchaser, the Contractor shall provide test data to support all TVV activities
- TVV-10. The Contractor shall strictly follow the TVV processes (described in the latest version of the TV&V Process Definition and Execution Document (PDED) provided by the

- purchaser). When Contractor would like to propose a modification, it shall be approved by the Purchaser.
- TVV-11. The Contractor shall ensure that rigorous testing, including regression testing when required, is performed at every stage of the Project lifecycle in order to identify and correct defects as early as possible and minimise impact on cost and schedule.
- TVV-12. All test, verification and validation material developed and used under the Contract shall be delivered to the Purchaser
- TVV-13. The Contractor shall provide an overall project Test Director for the phases defined in Table 16, who will work closely with the Purchaser’s assigned TVV Manager and NATO Quality Assurance Representative (NQAR). Table 5 defines the test phases considered. It deemed necessary, the project may split the test phases defined in Table 5 into multiple events.
- [162] The Purchaser will provide subject matter experts (SME) during each test event, as well as TVV Test Engineers and an NQAR.
- TVV-14. The Contractor shall use Key Performance Indicators (KPIs) to identify opportunities for quality improvement, provide solutions and update the plans, the achievement of defined objectives like coverage of risks, requirements, supported configurations, supported operational scenarios, etc.
- TVV-15. The Contractor shall have the overall responsibility for meeting the TVV requirements and conducting all related activities defined in the Table 23 below, describing TVV phases. Each phase may have one or more events to complete the full scope.

Table 23 – TVV Phases

TVV Phases	Scope	Purchaser Involvement
<b>Engineering Phase</b>	Internal contractor activities executed during development phase of the system to ensure the system/software conforms to their design specifications.	<b>Review:</b> Test Reports for Unit, Integration and System tests. Inspections
<b>Qualification Phase</b>	Activities executed to verify the design and manufacturing process, ensure the system meets necessary design requirements, and provide a baseline for subsequent acceptance tests.  <i>Possible activities:</i> TEMPEST Testing Electro-Magnetic Compatibility (EMC) Testing General Environmental Testing Water/Dust Ingress Testing Operational Robustness Testing Mechanical Environmental Testing Environmental Control Testing Biological & Chemical Testing Transportation Testing Physical Functional System Testing Product Safety Testing	<b>Review:</b> Event Test Plan, Test Cases/Scripts, Test Report, Test Data, Test Environment Baseline, Existing defects. Demonstrations. Inspections  <b>Participate:</b> Test Readiness Review (TRR), Test Execution, Event Review Meeting (ERM)



TVV Phases	Scope	Purchaser Involvement
	<p><i>User Interface Testing</i>  <i>Component Testing</i>  <i>Interface Testing</i>  <i>Security Testing</i>  <i>Integration Testing (internal to the project deliverables)</i></p>	
<p><b>Factory Acceptance Phase</b></p>	<p>To verify that production units comply with the requirement/design specifications and production can start. Confirm that all required engineering-level testing activities have been completed in accordance with the SOW. Determine if project deliverables are ready for independent verification, validation and acceptance</p>	<p><b>Review:</b> Event Test Plan, Test Cases/Scripts, Test Report, Test Data, Test Environment Baseline, Existing defects. Dry Run results. Certification</p> <p><b>Participate:</b> Dry Run (Optional Purchaser participation), TRR, Test Execution, Event Review Meeting (ERM)</p>
<p><b>TVV Assessment Phase</b></p>	<p>Independent assessment performed with Purchaser and led by Contractor to determine whether or not a system satisfies user needs, functionality, requirements, and user workflow processes etc. before it gets into operation.</p> <p>To ensure verification of quality criteria defined in figure 1 Product Quality Criteria, for the following tests:</p> <ul style="list-style-type: none"> <li>- <b>System Integration Test (SIT)</b> – Requirements based testing, focused on verifying integration of the different components together and with any external interface as defined by the SOW</li> <li>- <b>User Acceptance Test (UAT)</b> – Scenario based testing, focused on validating the system as per user needs.</li> <li>- <b>Security Tests</b> – Tests focused on ensuring the security criteria are met.</li> <li>- <b>System Acceptance Test (SAT)</b> – Tests focused on ensuring compliance with the requirements outlined in the SOW.</li> <li>- <b>RFC Evaluation</b> – Review by Agency Change Managers and execution of any additional evaluation as requested by Change Managers. Under normal circumstances, all required inputs are generated from TVV activities</li> </ul>	<p><b>Review:</b> Event Test Plan, Security Test and Verification Plan (STVP), Test Cases/Scripts, Test Report, Test Data, Test Environment Baseline, Existing defects and Analysis thereof</p> <p><b>Participate:</b> TRR, Test Execution, Event Review Meeting (ERM). User Reviews (including internal users)</p>

TVV Phases	Scope	Purchaser Involvement
<b>Site Acceptance Phase (SiAT)</b>	To ensure that the specific site/node is installed properly per site/node installation plan and the service meets the requirements stated in the SRS. Site Acceptance Testing is also to ensure compatibility and integration of the product with the site environment. Migration related tests are also covered under this tests. This includes integration with PFE.	<p><b>Review:</b> Event Test Plan, Test Cases/Scripts, Test Report, Test Data, Test Environment Baseline, Existing defects. Demonstration. Analysis.</p> <p><b>Participate:</b> TRR, Test Execution, Event Review Meeting (ERM)</p>
<b>Operational Test and Evaluation</b>	To ensure that all the Operational Acceptance Criteria (OAC) such as performance and availability have been successfully implemented. Sites are successfully integrated and tested on the network level. Demonstrate that all components of the System/Application have been integrated (including other systems) to meet all OACs as well as all security requirements defined in the Security Accreditation Documentation Package. Ensure end to end delivered system works as expected and can interoperate with other Purchaser equipment	<p><b>Review:</b> Event Test Plan, Test Cases/Scripts, Test Report, Test Data, Test Environment Baseline, Existing defects. Demonstrations. Analysis</p> <p><b>Participate:</b> TRR, Test Execution, Event Review Meeting (ERM)</p>

[163] The Purchaser reserves the right to monitor and inspect the Contractor’s TVV activities to verify their compliance with the requirements set forth in this Contract.

[164] The Contractor shall ensure that their System Verification methodology and strategy of acceptance aligns to the following:

- a. Inspection. It comprises the physical examination, by the Purchaser, of a product, service or system, under a specific configuration against the contracted SOW requirements and inherent or assigned characteristics, on its ability to show that it meets expectations or satisfies stated needs, requirements or specification;
- b. Analysis. The Contractor illustrates that a deliverable meets the requirements through calculations and/or simulations using internationally recognized scientific or credible empiric methods. Verification by analysis is applicable where demonstration or test is not feasible or economically viable;
- c. Demonstration. The Contractor shows the performance of a product, service, system or feature in use, be they representative or operational conditions. The execution of these tests requires the presence of the Purchaser, and possibly accompanied by Customer representative;
- d. Testing. This comprises the emulation and, or simulation of the operational environment in which a product, service or system, under a specific configuration, is expected to operate. Test procedures shall follow standards referred to with the TDCIS System Requirements Statements (SRS) document.

Test execution requires the presence of the Purchaser. The Contractor shall submit respective test reports for review to, and approval by the Purchaser;

- e. Certification. The Contractor is responsible for obtaining certificates from the relevant independent authorities, who are recognised and, or accredited by NATO, demonstrating that the equipment delivered under this project has been built and set-up in accordance with this SOW and applicable International and European norms. Certificates shall identify the equipment’s approving independent authority and list the requirements against which it has been validated. All necessary TDCIS compliancy criteria, shall be validated using this method.

TVV-16. The Contractor shall only proceed to the next formal TVV activity, after the successful completion of the previous TVV activity and after the agreement/approval by the Purchaser of it being fit for use and, or purpose..

### 8.3 DELIVERABLES

TVV-17. The Contractor shall provide a System Test Documentation Package, following documentation templates provided by the Purchaser, that is comprised of the following documents:

Table 24 - Test Documentation

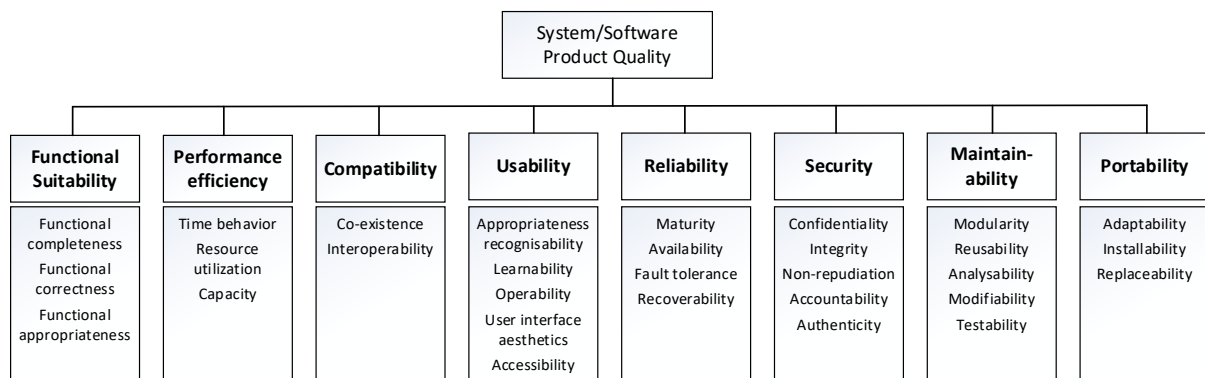
<b>Work Product Name</b>	<b>First Draft</b>	<b>Sent to Review/Approve</b>
The Master Test Plan (MTP)	<i>During Bid</i>	<i>4 weeks after contract award</i>
Defect Reporting and Management Plan	<i>During Bid</i>	<i>4 weeks after contract award</i>
Event Test Plans for individual test events (ETP)	<i>During Bid (example)</i>	<i>4 weeks before TVV event</i>
The Security Test & Verification Plans (STVP)		<i>as required per the NSAB</i>
Security Implementation Verification Procedures (SIVP)		<i>4 weeks before TVV event</i>
Any submitted test Waivers together with supporting material		<i>4 weeks before TVV event</i>
The Test Cases/Scripts/Steps	<i>During Bid (example)</i>	<i>4 weeks before TVV event. First draft 4 weeks after contract award</i>
Status Reports		<i>Periodically (to be defined in the MTP)</i>
Test Completion Report		<i>1 week after TVV event</i>
System under-test Documentation		<i>2 weeks before TVV event</i>
The Requirements Traceability Matrix (RTM) updated with test-related information	<i>During Bid</i>	<i>First with MTP and update per test event</i>

- TVV-18. If applicable, the Contractor shall develop and validate any Test Harnesses, simulators and stubs, including all script/code/data/tools required to execute the planned functional and non-functional tests in the Test Environment. The Test Harnesses for PFE will be provided by the Purchaser following Contract Award
- TVV-19. Modification of inaccurate or inadequate TVV deliverables and any subsequent work arising as a result shall be carried out at the Contractor's expense.
- TVV-20. All TVV materials developed and used under the Contract shall be delivered to the Purchaser.
- TVV-21. Templates provided by the Purchaser are to be util ised by the Contractor as structure guides and for the content the Purchaser expects to be detailed. If the Contractor would like to propose a modification of the templates, it shall be approved by the Purchaser.
- TVV-22. All deliverables shall undergo as many review cycles are required, and shall be approved once all deficiencies have been corrected.

**8.3.1 MASTER TEST PLAN (MTP)**

- TVV-23. The Contractor shall identify and describe in the Master Test Plan (MTP) which best practices and international standards will be applied and how.
- TVV-24. The Contractor shall produce a Master Test Plan (MTP) to address the plans for each TVV activities listed in this document. The Purchaser will monitor and inspect the Contractor's MTP activities to ensure compliance.
- TVV-25. The Contractor shall keep the MTP always up to date.
- TVV-26. The Contractor shall describe how the Quality Based Testing is addressed and implemented in the MTP. is based on ISO 25010 and should be used as product quality criteria model.

Figure 2 - Product Quality Criteria



- TVV-27. The Contractor shall describe all formal TVV activities in the MTP with a testing methodology and strategy that fit the development methodology chosen by the project.
- TVV-28. The Contractor proposed testing methodology shall describe the method of achieving all the test phases, defined in Table 1 successfully.
- TVV-29. The Contractor shall describe in the MTP how the following objectives will be met:
  - a. Compliance with the requirements of the Contract
  - b. Verification that the design produces the capability required

- c. Compatibility among internal system components
  - d. Compliance with the SRS requirements
  - e. Compliance with external system interfaces and/or systems
  - f. Confidence that system defects are detected early and tracked through to correction, including re-test and regression approach
  - g. Compliance with Purchaser policy and guidance (i.e. security regulations, etc.)
  - h. Operational readiness and suitability
  - i. Product Quality Criteria (Figure 2)
- TVV-30. The Contractor shall describe the Contractor's test organization and its relationship with the Contractor's Project Management Office and Quality Assurance (QA) functions in the MTP.
- TVV-31. The Contractor shall describe in the MTP "Entry and "Exit" criteria for each of the formal TVV events. The Contractor shall seek approval of all criteria related to an event not later than the TRR of the event
- TVV-32. The Contractor shall provide in the MTP the schedule, location and scope for all the events to be run, specifying to which phase they belong. When the contractor identifies that multiple events are required for a phase, this shall also be specified in the MTP.
- TVV-33. Together with the MTP, the contractor shall provide a defect reporting and management process to be applied during the TVV activities.
- TVV-34. The Contractor shall describe how defects/non-conformances encountered during TVV events will be reported, managed and remedied
- TVV-35. The MTP shall include the Contractor's approach to Test Reviews including Test Readiness Reviews and Event Review Meetings for each TVV event.
- TVV-36. The Contractor shall provide Contractor's provisions and strategy for building/maintaining of the Reference Environment in MTP.

### **8.3.2 TEST CASES AND TEST PROCEDURES**

- TVV-37. Any updates required from the execution of test cases during each phase shall be incorporated into the relevant test cases by the Contractor for use during independent verification, validation and acceptance. If only certain sections are affected, then it shall be sufficient to up-date and re-issue those Section plus cover sheet with amendment instructions. Should major changes in contents or page re-numbering be needed, then the complete Section shall be re-issued by the Contractor. All changes shall be made with the agreement and approval of the Purchaser
- TVV-38. The Contractor shall submit the draft test cases for the TVV event to the Purchaser for approval no later than four (4) weeks prior to the execution of the tests, unless differently stated in a work package. The Purchaser shall provide comments or approval within four (4) weeks of receipt. The purchaser must have the final version of the test cases and Event Test Plan available one (1) week prior to the TRR for a specific TVV event
- TVV-39. The contractor shall develop test and use cases to verify and validate all requirements in the SOW, requirements specifications and final design. The test cases shall follow the template provided by the purchaser

### 8.3.3 EVENT TEST PLAN

- TVV-40. The contractor shall create an Event Test Plan (ETP) per each event detailing all the information required for that event. The ETP shall follow the template provided by the Purchaser.
- TVV-41. The Contractor shall describe in the event test plan what training (if any) will be provided prior to formal TVV events.
- TVV-42. The Contractor shall identify, in the ETP, which environment(s) to be used at each TVV event and the responsibilities for configuration control, operation and maintenance of the environment
- TVV-43. The ETP shall describe when an agreement shall be reached between the Contractor and the Purchaser on the defect categorization and defect priority of failures encountered, as well as a way forward (if either at the end of each day of a TVV event or at the Event Review Meeting). If agreement is not reached, the disputed items shall be escalated to the Purchaser's and Contractors' Project Managers

### 8.3.4 REQUIREMENT TRACEABILITY MATRIX

- TVV-44. The Contractor shall produce and maintain the Requirement Traceability Matrix (RTM), which includes all functional and non-functional requirements, to track the TVV status of all requirements throughout the Contract execution (especially during the TVV activities). The RTM shall also trace the requirements to the design. It shall also define how the requirements will be validated or verified at each of the TVV activities:
- a. The verification method: Inspection, Analysis, Test or Demonstration
  - b. Correspondent TVV phase(s) for each requirement
  - c. Coverage Status
- [165] The Purchaser will review and approve the proposed RTM.
- TVV-45. The contractor shall maintain the RTM updated during the project lifecycle.
- TVV-46. The RTM shall map the applicable Operational Acceptance Criteria (OAC) to the SoW and SRS requirements. The Contractor shall establish the OAC traceability at the requirements analysis stage and approve at design stage.
- TVV-47. The RTM shall be provided and maintain as an appendix to the SDS, extend this matrix to the Developmental Baseline, Product Baseline and the Management Test Plan (MTP) to ensure verification thought the project.
- TVV-48. The RTM shall guarantee the two way link between requirements (SRS) and technical specifications.
- TVV-49. The Contractor shall provide the Purchaser with updates (via the tools) to the RTM daily during the execution of an event, and following the conclusion of each event defined in the MTP. A workflow for updating the RTM shall be proposed by the Contractor and approved by the Purchaser.

### **8.3.5 SECURITY TESTING VERIFICATION PLAN**

- TVV-50. The Contractor shall produce an STVP, to ensure that the Security testing, including verification of compliance with NATO CIS security regulations (in Annex C of the SoW) is applied. This is an integral part of the IVVA process.
- TVV-51. The STVP shall support the accreditation of the System Platform. This document shall be approved by NATO Office of Security.

### **8.4 TOOLS**

- TVV-52. The Contractor shall generate and deliver automated test procedures/cases compatible with Purchaser test management and automation tools.
- TVV-53. The Contractor shall make use of automated testing and supporting testing tools (test management, requirement coverage, defect management, etc.) to the maximum applicable extent, for all system development, implementation, internal and formal tests. The process and proposed supportive tools shall be described in the Master Test Plan (MTP). In areas where the Purchaser already uses specific tools, the Contractor shall make use of the tools in use by the Purchaser
- TVV-54. Tools supporting requirements coverage, defect management and test management shall be selected and hosted by the purchaser and used by the Contractor. For any internal work, the Contractor may use their own internal tools, but the tools used for the contractor's internal work shall be able to natively interface with the tools selected and hosted by the Purchaser in order to keep all TVV related data for the project in the purchaser tools.

### **8.5 TEST VERIFICATION & VALIDATION EVENTS AND RESULTS**

- TVV-55. The Contractor shall conduct testing during the Project lifecycle compliant with the following requirements:
- TVV-56. The Contractor is responsible for conducting all testing during the Project lifecycle. The contractor shall provide evidence to the Purchaser of the results of these testing activities. The Contractor shall respond to any Purchaser clarification requests regarding test results or performance within two working days
- TVV-57. The Contractor shall conduct all testing activities for any architectural changes.
- TVV-58. The Contractor shall support post go-live activities during the Operational Acceptance phase, to evaluate the project capability performance and establish benchmarks for future enhancements, including any changes made to fulfil the requirements.
- TVV-59. The Contractor shall provide status reports to the Purchaser regarding verification and validation activities during the planning/design and development phases, via the use of a dashboard report within the test management tool set and through meetings. The Contractor shall provide report(s) to the Purchaser following the completion of any TVV event. The Purchaser will approve the report and its findings within two business days
- TVV-60. Progress and result measurement shall be approved by the Purchaser and focused on KPIs.

TVV-61. Test results shall be recorded in the test management tool set. All results of all formal acceptance testing performed during a given day must be recorded in the test management tool. The Contractor shall provide these test results for any given day by the starting of the next business day (0800 AM), but as a minimum not later than 24 hours following the execution of any test.

### **8.5.1 TEST READINESS REVIEW (TRR)**

TVV-62. The Contractor shall conduct a Test Readiness Review (TRR) meeting at least one week prior to the events defined in the MTP. The TRR shall ensure that all entry criteria for the events have been met. Documentation that requires review by the Purchaser prior to a TRR, as defined in the Event Test Plan (ETP), shall be provided no less than 2 weeks prior to TRR.

TVV-63. The Purchaser has the right to cancel the TRR and/or any formal test event if the evidence demonstrates that execution of the test event will not be effective.

TVV-64. The Contractor shall demonstrate that all the internal tests and dry runs are successful with test reports and results delivered to the Purchaser at least 2 weeks prior to start of any Contractual test activities.

### **8.5.2 EVENT REVIEW MEETING**

TVV-65. The start and/or ending of any test session shall be subject to the Purchaser approval. In the event that critical issues are encountered which impact the process of the testing or if the other functions depends on the failed test cases, the Purchaser has the right to stop the testing for Contractor's investigation. The tests can only re-start if Purchaser agrees to continue testing from the point of failure or re-start testing from the beginning.

TVV-66. The Contractor shall convene an Event Review Meeting (ERM) as defined in the ETP. The ERM shall ensure that the event results, defect categorization and a way forward to fixing the defects (if required) is agreed upon the Contractor and the Purchaser,. If agreement is not reached, the disputed items shall be escalated to the Purchaser's and Contractors' Project Managers.

### **8.5.3 TVV EVENT**

TVV-67. An event starts with the Test Readiness Review (TRR) and finishes off with the Event Review Meeting (ERM).

TVV-68. During formal TVV phases, a daily progress debrief shall be scheduled. Participation to the daily progress debrief will be agreed between Purchaser and Contractor. The aim of the debrief is to get a common understanding on what tests were run, which passed, which failed, and whatever defects were reported during the day.

TVV-69. For each TVV event, the Contractor shall provide log/record of the event, including but not limited to individual test results, defects found, requirement coverage, test execution durations, deviations during execution and sign-off for each result by both the Contractor and Purchaser.

TVV-70. At the end of the project, the Contractor shall provide the final version of all artefacts (regardless of format) created during the execution of all TVV activities.



**8.5.4 TEST WAIVERS**

- TVV-71. The Contractor may request a Test Waiver if the Contractor has previously successfully completed qualification testing to national, or international standards for assemblies, subassemblies components or parts. The Purchaser, after review of test waivers and analysis of their impact, reserves the right to require test and certification of the modified equipment at no cost to the Purchaser. The Purchaser has the right to reject any test Waiver.
- TVV-72. In respect to a requested waiver, the Contractor shall certify that the test environment to be implemented is identical to that which was originally used for testing, or advise the Purchaser of design/construction changes which affect form, fit or function.
- TVV-73. The Contractor shall record and log all waiver requests along with their resolution submitted for the Purchaser’s approval.

**8.5.5 FAILED EVENTS**

- TVV-74. In the event of failed TVV event and the need to return to a site for re-testing; travel and per diem expenses of NATO personnel shall be borne by the Contractor

**8.6 TEST DEFECT CATEGORISATION**

- TVV-75. The Contractor shall use the Purchasers’ categorization nomenclature for all defects and non-compliances
- TVV-76. Should a failure be identified during a TVV event/activity, a defect shall be recorded in the Agency’s’ test management and defect management systems. Once the event has concluded, the defect shall be reviewed during the event review meeting to agree on the severity, priority and category. The event test report shall then report the disposition of all defects recorded during the event and the defect management system shall be updated accordingly. Classification shall follow the definitions in Table 25:

Table 25 - Definitions for Defect Categorization

Attribute s	Definition
Severity	<p>The severity of a defect is the degree of impact that the failure has on the development or operation of a component, a system or a user function.</p> <p>The severity shall initially be proposed by the tester but shall officially be set in agreement with all the stakeholders. When agreement cannot be reached, the Purchaser’s PM will set the severity.</p>
Priority	<p>The priority of a defect defines the order in which defects shall be resolved.</p>

	The priority of the defect shall initially be proposed by the tester but shall officially be set in agreement with all the stakeholders. When agreement cannot be reached, the Purchase’s PM will set the priority.
Category	The type of observation identified during the execution of a test case.

**8.6.1 SEVERITY**

TVV-77. According to their severity, defects shall be classified as one of the following in Table 26:

Table 26 - Classification of defects based on severity

Severity	Definition
Critical	<p>The failure of testing of a requirement.</p> <p>The failure results in the termination of the complete system or one or more component of the system.</p> <p>The failure causes extensive corruption of data.</p> <p>The failed function is unusable and there is no acceptable alternative method to achieve the required results</p>
Major	<p>A significant failure that causes severely impaired functions but does not prevent operational processing. Applies to conditions under which the complete system or one or more component of the system are partially inoperative, but are still usable by the users. A work around may be available, but it may require manual intervention.</p> <p>Examples:</p> <ul style="list-style-type: none"> <li>* Absence of expected modules/ object or Unit</li> <li>* failure of business operational process that affects a large group of users</li> <li>* complete failure of a module</li> </ul>
Moderate	<p>The failure does not result in the termination and all functions are available but causes the system to produce incorrect, incomplete or inconsistent results. When resources are available and budgeted, should be resolved.</p>
Minor	<p>The failure does not result in termination and does not damage the functioning of the system. The desired results can be easily obtained by working around the failure.</p>

Severity	Definition
Cosmetic	The failure is related to the look and feel of the application, typos in a document or user interfaces (amongst others), and not part of the immediate usability or contractual requirements. The failure does not adversely affect the overall system operation.

**8.6.2 PRIORITY**

TVV-78. According to their priority, defects shall be classified as one of the following in Table 27:

Table 27 - Priority Classes for Defect Classification

Priority Class	Description
Urgent	The defect shall be resolved as soon as possible. Required to complete independent verification and validation activities.
Medium	The defect shall be resolved in the normal course of development activities. It can wait until a new build or version is created.
Low	The defect is an irritant which should be repaired, but repair can be deferred until after more serious defects have been fixed.

**8.6.3 CATEGORY**

TVV-79. According to their category, deficiencies shall be classified with one of the values defined in Table 28:

Table 28 - Deficiency Categories

Category	Description
Defect	An imperfection or deficiency in a work product where it does not meet its requirements or specifications. This category of defect could drive to the creation a Class II (Product Correction) Engineering Change Proposal (ECP).
Enhancement	This type of defect is used to record an Improvement to the product baseline. This category of defect would typically drive to the creation of a Class I (Product enhancement) ECP.
Document	This category is used to record deficiencies encountered in the system documentation (test cases, test procedures, RTM, test plan, manuals, design, procedures...).

Category	Description
Clarification	This category is used to record deficiencies encountered during the test execution, which must be clarified.
Waiver	This category is used to record when a waiver is required to address a specific observation or deficiency.

## 9 Security Accreditation

### 9.1 INTRODUCTION

- [166] The Tactical Deployable CIS (TDCIS) needs to achieve security accreditation in order to be granted the authorisation for operational use at S\*CR\*T level. Therefore, the security accreditation process established by the appropriate Customer and Purchaser Security Accreditation Authorities (SAA) are to be followed.
- [167] The primary objective of security accreditation is to ensure that an adequate level of protection is achieved and maintained throughout the life cycle of the TDCIS. This includes ensuring that the TDCIS conforms to NATO Security Policies and Directives identified in the chapter below.
- [168] The security accreditation of the TDCIS DCIS is to follow a structured process based on the high level requirements established in the Management Directive on CIS Security (ref. 9), as detailed in this document. Deviations from this structured process are to always be documented and can only be authorised by the appropriate SAA.
- [169] The Security accreditation is to be granted by the Purchaser's SAA for the TDCIS to store, process and/or transmit NATO information in its desired environment.

### 9.2 SECURITY ACCREDITATION REQUIREMENTS

- [170] This Section defines the requirements pertaining to the execution of WP3. This Section also describes the security accreditation process for the TDCIS project, in accordance with the current NATO Security Policies and Directives.
- [171] Security Accreditation for NATO Communications and Information Systems (CIS) is a structured process to ensure that an adequate level of protection is achieved and maintained throughout the life cycle of the CIS.
- SEC-1. Security Accreditation Process for TDCIS, as described in the NATO Security Policies and Directives shall be strictly followed by the Contractor and shall encompass overall development, production and implementation of the TDCIS DCIS
- SEC-2. A verification that security measures (personnel security, physical security, security of information, CIS security controls), including security baselines identified in the respective System-specific Security Requirement Statements (SSRS) and SecOPs have been properly implemented in accordance with the requirements of the SAA is one of the primary bases for the security accreditation for the TDCIS.
- SEC-3. This verification is carried out by the SAA and typically supported by appropriate results of security testing conducted based upon agreed Security Test and Verification Plan (STVP) which is to cover all security requirements identified and approved in form of System-specific Security Requirement Statement (SSRS).
- SEC-4. Due to the TDCIS architecture and its operational purpose (DCIS), Electronic Security Environment (ESE) assessment process is to be decoupled from the assessment provided for the Global Security Environment (GSE) and Local Security Environment (LSE). This is because for the TDCIS, being deployable CIS, both target GSE and LSE are unknown and cannot be addressed in advance. As the opposite, appropriate evaluation of ESE for the TDCIS will be done before any deployment.

- SEC-5. The achievement of security accreditation for TDCIS is related with development and SAA approval of necessary Security-related Documentation (SRD). The Contractor should expect a number of review rounds per document before it will be approved.
- SEC-6. Coordination with the SAA will be conducted by the Purchaser.
- SEC-7. In support of producing the deliverables the Contractor shall closely engage directly with representatives of the Purchaser and/or SAA (through the Purchaser) in order to discuss particular security-related requirements but also to clarify and/or enhance the documentation to be provided as part of the Security-related Documentation.
- SEC-8. This process shall be organised in the form of one or several workshops that shall be attended by the Contractor and by representatives of the Purchaser. Location of the meetings and workshops will be defined by the Purchaser and will typically take place at a facility located in the Purchaser. The Contractor may be invited to provide briefings and/or technical expertise for meeting(s) with the SAA.
- SEC-9. The SAA may provide advice and instructions to the Contractor on any security implication, or any proposed change based on the findings and results of the assessments and/or security tests. The advice, instructions and guidance from the SAA shall be considered by the Contractor. The Contractor shall take action(s) to follow, carry out the necessary work and to implement the advice, instructions and guidance given by the SAA.
- SEC-10. The Contractor shall recognise the NATO Security Policies and supporting Directives, in order to take into account all related requirements in the resulting TDCIS system design and installation thereof.
- SEC-11. The Contractor shall take into account the NATO CIS security requirements for the implementation and support of three security domains in the deployed environment, NATO S\*CR\*T (NS), Mission S\*CR\*T (MS), and NATO Unclassified (NU) respectively.
- SEC-12. The Contractor shall be responsible to develop and implement the TDCIS system in accordance with the NATO CIS security requirements and provide all required security-related documentation for TDCIS system (in English language) in order to achieve security accreditation of the TDCIS DCIS.
- [172] Security accreditation for TDCIS needs to be achieved before the system is to be put into the operation(s).
- [173] When there will be a requirement to test specific TDCIS node(s) or elements thereof, before use in the final operational environment, the SAA may grant an Approval for Testing (Aft) with caveats to be applied to its use. These caveats could include the scope of tests, the classification of information involved in the testing, the test plan and the timeframe for the Aft, etc.
- SEC-13. The Contractor shall coordinate with the Purchaser, all Aft requirements and provide filled Aft Request (based on the Purchaser provided template (ref. [1]i) to the Purchaser as required. The Purchaser is to coordinate this request with SAA.
- [174] Approval for Testing is typically required (but not limited) to conduct necessary security testing in accordance with Security Test and Verification Plan (STVP). Depending on the infrastructure involved, functional testing of TDCIS may also require Aft to be issued by the SAA.
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### **9.3 SECURITY-RELATED DOCUMENTATION**

- SEC-14. The Security-related Documentation (SRD) in support of the accreditation process, comprised of the following deliverables in English language, shall be provided by the Contractor:
- a. CIS Description;
  - b. Security Accreditation Plan (SAP);
  - c. Security Risk Assessment (SRA);
  - d. System Specific Security Requirement Statement (SSRS);
  - e. Generic System Interconnection Security Requirement Statement (SISRS);
  - f. Security Operating Procedures (SecOPs);
  - g. Security Test and Verification Plan (STVP);
  - h. Security Test and Verification Report (STVR); and
  - i. Electronic Security Environment (ESE) Conformance Statement (ESECS).
- SEC-15. The Contractor shall produce key security-related documentation or inputs to documents in support of the TDCIS security accreditation, as detailed below.
- SEC-16. The Contractor shall produce required documentation or inputs to documents using templates, provided by the Purchaser, as listed in the Appendix B, Section B.2.8. These will be provided after contract award.

### **9.4 SECURITY ACCREDITATION PLAN (SAP)**

- [175] The Security Accreditation Plan describes the steps to be taken to achieve security accreditation for TDCIS.
- [176] Initial version of the Security Accreditation Plan for the TDCIS is to be developed by the Contractor and presented for the approval to the SAA
- SEC-17. The Contractor shall strictly adhere to the security accreditation activities described in the SAP as approved by the SAA. All activities related with the security accreditation process shall be identified in the respective Project Implementation Plan (PIP) and in the Project Management Plan (PMP).
- SEC-18. Timeline specified in the SAP shall be maintained by the Contractor during the project to address changes in the PIP and PMP.
- SEC-19. Any other changes required by the Purchaser to be incorporated into the SAP shall be addressed by the Contractor and provided to the Purchaser who will coordinate this with SAA.

### **9.5 CIS DESCRIPTION**

- [177] The CIS Description for TDCIS is the first document in support to security accreditation to be developed after contract award.

- SEC-20. The CIS Description for TDCIS shall be developed by the Contractor based on Purchaser's provided template (ref. b and shall be approved by the SAA (through the Purchaser).
- SEC-21. The CIS Description shall be formulated at the earliest stage of the project (TDCIS planning stage) and shall be further enhanced as the project develops.
- SEC-22. The CIS Description document shall at a minimum include the following information:
- a. Detailed technical description showing the main components and the high level as well as detailed information flows, and how these are protected, inclusive of any data flow from leveraged networks/infrastructure (if any);
  - b. Description of all internal and external connections of the system;
  - c. List of hardware and software components used;
  - d. Overview of the security mechanism which are going to be implemented in the TDCIS DCIS and all its components.
- SEC-23. The Contractor developed CIS Description shall be submitted to the Purchaser for review before they will be provided to the SAA for approval.
- SEC-24. The Contractor shall take into account any comments from the reviewers and SAA and shall update the CIS Description document as many times as necessary in order to obtain SAA approval.
- SEC-25. The Contractor shall maintain and keep the CIS Description document up to date throughout the project.

## **9.6 SECURITY RISK ASSESSMENT**

- [178] The Security risk assessment is the process of identifying security risks, i.e. the threats and vulnerabilities to the CIS, determining their magnitude and identifying areas needing countermeasures. Security risk assessment serves to identify the risks that exist, identify the current security posture of the CIS in respect to handling information, and then assemble the information necessary for the selection of effective security countermeasures, based upon NATO Security Policy and supporting Directives and Guidance.
- [179] The Security risk assessment contributes to the decision on which security measures are be required, and how the apportionment between technical and alternative security measures can be achieved, and gives an unbiased assessment of the residual risk.
- SEC-26. The Security Risk Assessment (SRA) for the TDCIS shall be conducted by the Contractor based on the information provided in the CIS Description document. SRA is to be approved by the SAA.
- SEC-27. SRA shall be conducted in accordance with AC/35-D/1017. Refer to Table 4, Section 2.3.6.
- SEC-28. The Contractor shall use the SRA application PILAR 8.1 version minimum (and utilising MAGERIT methodology) with the NATO profile for producing the Security Risk Assessment for the TDCIS.



- [180] Note access to the NATO Pilar application, with the NATO profile can be made available for the Contractor to produce the TDCIS SRA, if required.
- SEC-29. The Contractor shall use the NATO template "SRA Report (PILAR) Template", as listed in the Appendix B, Section B.2.8, to document the results of the SRAs.
- [181] Objective of the SRA is to define the security objectives of confidentiality, availability and integrity/authenticity of the designed TDCIS systems according/in tandem to the particular services to be provided by the resulting TDCIS system, the values of the traffic and information stored and transported over the TDCIS system, and the nature and levels of the particular threats being identified.
- SEC-30. The Contractor shall organise SRA workshop(s) at Purchaser facility. Respective Purchaser's Subject Matter Experts (SMEs) shall be invited to support proper assessment. It has been anticipated that at least 2 (two) up to 5 (five) days SRA workshops will be required.
- SEC-31. The Security Risk Assessment process for the TDCIS shall include the following stages:
- a. Identification of the scope and objective of the security risk assessment (which shall be agreed with the Purchaser plus National and NATO SAA);
  - b. Determination of the physical, personnel and information assets which contribute to the fulfilment of the mission of the TDCIS;
  - c. Determination of the value of the physical and personnel assets;
  - d. Determination of the value of the information assets against the following impacts: disclosure, modification, unavailability and destruction;
  - e. Identification of the threats and vulnerabilities to the risk environment and their level;
  - f. Identification of existing countermeasures;
  - g. Determination of the necessary countermeasures and a comparison with existing measures; identifying those countermeasures which are already installed and identifying those countermeasures which are recommended.
- SEC-32. Based on the results of the Security Risk Assessment SRA, the Contractor shall identify areas of TDCIS DCIS requiring safeguards and countermeasures to comply with NATO Security Policy and supporting Directives. The decision on specific security mechanisms shall be based on evidence(s) and results produced by the Security Risk Assessment.
- SEC-33. Where the implementation of security measures results in the modification of the design (without introducing additional components), other documentation requirements, and changes to configuration of components, the Contractor shall consider these changes to be within the technical and financial scope of this Contract; no Engineering Change Proposal (ECP) shall be generated.
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- SEC-34. Where the implementation of security measures results in a requirement for additional components to be procured for implementation that could not be reasonably foreseen beforehand, an ECP shall be raised by the Contractor.
- SEC-35. The Contractor shall take into account any comments from the SAA (provided to the Contractor through the Purchaser) and shall conduct update of SRA document as many times as necessary in order to obtain SAA approval.
- SEC-36. The SRA for the TDCIS shall be composed as a standalone document.

## **9.7 SYSTEMS-SPECIFIC SECURITY REQUIREMENT STATEMENT**

- [182] The System-specific Security Requirement Statement (SSRS) is a complete and explicit statement of the security principles to be observed and of the detailed security requirements to be met.
- [183] SSRS specifies how security is to be achieved, managed and checked.
- SEC-37. The SSRS for TDCIS DCIS shall be developed by the Contractor based on Purchaser's provided template (ref. d) and shall be approved by the SAA (through the Purchaser).
- SEC-38. The SSRS shall be formulated at the earliest stage of the project (TDCIS planning stage) and shall be further developed and enhanced as the project develops.
- SEC-39. The Contractor's developed SSRS shall:
- a. Describe the minimum levels of security deemed necessary to countermeasure the risk(s) identified in a risk assessment;
  - b. Have a unique identifier for each security requirement;
  - c. Indicate mandatory and recommended Security Mechanisms (SMs).
- SEC-40. SSRS shall be based on NATO Security Policy and supporting Directives and the Security Risk Assessment. The SSRS for TDCIS shall also take into consideration parameters covering the operational environment such as the lowest level of personnel security clearance, the highest classification of information handled, the security mode of operation and other Purchaser's specific requirements.
- SEC-41. The Contractor shall take into account any comments from the SAA (provided to the Contractor through the Purchaser) and shall conduct update of SSRS document as many times as necessary in order to obtain SAA approval.

## **9.8 SYSTEM INTERCONNECTION SECURITY REQUIREMENT STATEMENT**

- SEC-42. The Contractor shall develop a generic SISRS for TDCIS DCIS in order to cover security requirements for the interconnection of the TDCIS DCIS with other CIS (based on scenario types provided by the Purchaser).
- SEC-43. The generic SISRS shall cover all identified interfaces to other system(s).

SEC-44. The generic SISRS for TDCIS DCIS shall be developed by the Contractor based on Purchaser's provided template, as listed in the Appendix B, Section B.2.8, and shall be approved by the SAA (through the Purchaser).

SEC-45. The Contractor shall take into account any comments from the SAA (provided to the Contractor through the Purchaser) and shall conduct update of the generic SISRS document as many times as necessary in order to obtain SAA approval.

## **9.9 SECURITY OPERATING PROCEDURES**

[184] Security Operating Procedures (SecOPs) are a description of the implementation of the security measures to be adopted, the operating procedures to be followed and the responsibilities of the personnel.

SEC-46. SecOPs for TDCIS DCIS shall be developed by the Contractor based on Purchaser's provided template (ref. f and shall be approved by the SAA (through the Purchaser).

SEC-47. SecOPs for the TDCIS shall contain separate chapters for personnel performing security management as well as administrative functions (e.g. Core Administrators, Local Administrators, and CIS Security Officer) and TDCIS users<sup>17</sup>.

SEC-48. SecOPs for the TDCIS, as a minimum, shall include following sections:

- a. Administration and organisation of security, including points of contact;
- b. Personnel security, physical security, security of information;
- c. CIS Security;
- d. Incident and emergency procedures;
- e. Configuration management;
- f. Acceptable use policy.

SEC-49. SecOPs shall also cover all security requirements identified in the SRA and SSRS which are not fully fulfilled by technical countermeasures. For example, following security procedures should be addressed (not exhaustive list) :

- a. System configuration and maintenance;
- b. System backup;
- c. System recovery, etc.

SEC-50. The Contractor shall take into account any comments from the SAA (provided to the Contractor through the Purchaser) and shall conduct update of SecOPs document as many times as necessary in order to obtain SAA approval.

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<sup>17</sup> If required separate SecOPs for different groups of users might be developed.

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SEC-51. While the remainder of the TDCIS documentation is to be in English language, the Contractor shall take into account that the SecOPs is a user/admin facing official document, that must be signed by users and administrators prior to their operation of the TDCIS. Therefore, the Contractor shall offer a bilingual approach to the development of the SecOPs, wherein both the English and Portuguese languages will be used.

## **9.10 SECURITY TEST AND VERIFICATION PLAN (STVP)**

A Security Test and Verification Plan (STVP) is a description of the security testing and verification of the CIS Security measures to be implemented for the TDCIS.

SEC-52. The STVP for TDCIS DCIS shall be developed by the Contractor based on Purchaser's provided template (ref. g and shall be approved by the SAA (through the Purchaser).

SEC-53. The STVP shall describe in details the tests which will demonstrate compliance with the security requirements for the TDCIS DCIS identified in the respective SSRS, generic SISRS and SecOPs.

SEC-54. The Contractor shall ensure that the STVP defines a complete and detailed sequence of steps to be followed to prove that the security mechanisms designed into TDCIS enforce the security requirements identified in the TDCIS SSRS.

SEC-55. For each security test the following details shall be identified:

- a. The objective of the security test;
- b. An outline description of the security test;
- c. A description of the execution of the security test (too include technical instructions how to conduct the test);
- d. The pass criteria for the security test.

SEC-56. The Contractor shall ensure that each and every security test is cross-referenced to the corresponding security requirements from the TDCIS SSRS (identified by the unique identifier) as well as to the tested security mechanisms (SMs).

SEC-57. The Contractor shall ensure all security requirements and security mechanisms identified for the TDCIS are planned for testing.

SEC-58. The Contractor shall execute the STVP for the TDCIS DCIS and develop respective Security Test and Verification Report (STVR).

SEC-59. Execution of STVP conducted at Purchaser's shall be witnessed by the Subject Matter Expert (SME) designated by the Purchaser. He/She is to countersign respective STVR(s).

SEC-60. The Contractor shall also develop, provide and maintain the initial and any updated Security Implementation Verification Procedures (SIVP) for the TDCIS DCIS as part of Security Tests.

- SEC-61. These procedures shall consist of a set of software scripts and inspection procedures that shall allow a CIS Security Officer to verify that all components of the TDCIS DCIS have been installed and configured properly and comply with the SSRS and SecOPs.
- SEC-62. The Contractor shall take into account any comments from the SAA (provided to the Contractor through the Purchaser) and shall conduct update of STVP and/or SIVP documents as many times as necessary in order to obtain SAA approval.

### **9.11 SECURITY TEST AND VERIFICATION REPORT (STVR)**

[185] A Security Test and Verification Report (STVR) is a description of the results for the every instance of security testing conducted based on STVP.

SEC-63. The Contractor shall develop STVR for every instance of security testing conducted based on STVP.

SEC-64. The STVR template for the TDCIS DCIS shall be developed by the Contractor.

SEC-65. For each security test the following details shall be identified in the STVR:

- a. Test ID;
- b. An outline description of the security test;
- c. The pass criteria for the security test;
- d. The results of the security tests;
- e. Test status (e.g. in progress, passed, failed)
- f. Test completion (in per cent);
- g. Failure severity (e.g. critical, high, medium, low, none);
- h. Test date;
- i. An info about who conducted the test;
- j. An information about who witness the test;

SEC-66. STVR shall contain overall test summary details:

- a. Identification of the element under tests (TDCIS deployable kit(s));
- b. Tests starting date;
- c. Tests finishing date;
- d. Amount of all tests to be conducted;
- e. Amount of tests executed;

- f. Tests passed;
- g. Tests failed;
- h. Tests still in progress;
- i. Amount of findings with clear distinguish of their severity (e.g. critical, serious, major, less important).

SEC-67. As the part of the STVR preparation, the Contractor shall also fill the Electronic Security Environment (ESE) Conformance Statement (ESECS) based on the Purchaser provided template, as listed in the Appendix B, Section B.2.8. ESECS after the Purchaser approval (signature) will be provided together with the test results (in form of the STVR) to the SAA as required for Deployable CIS.

SEC-68. Detailed TDCIS deployable kit configuration shall be depicted in the associated ESECS. If virtual infrastructure is to be used, all deployed virtual machines shall be also identified.

SEC-69. A separate ESECS shall be filled by the Contractor for each TDCIS deployable kit.

SEC-70. The Contractor shall take into account any comments from the SAA (provided to the Contractor through the Purchaser) and shall conduct update of STVR (this might require some security tests to be re-conducted) and ESECS as many times as necessary in order to obtain SAA approval.

## 10 SYSTEM ACCEPTANCE

### 10.1 PROVISIONAL SYSTEM ACCEPTANCE

- [186] The concept of Provisional System Acceptance (PSA) is based upon the knowledge that complex and technically sophisticated systems may not be delivered without some deficiencies in the compliance with the totality of the Contract requirements.
- SAC-1 To progress to PSA the Contractor shall have to have successfully completed all of WPs 1 to 7; see Section 2.
- SAC-2 Should there be any outstanding deficiencies, the Contractor shall be handle these as detailed in Section 6.7.
- SAC-3 The Contractor shall identify, document and maintain a complete Deficiency Log, listing of all deficiencies discovered during the testing leading up to its request for PSA and those which otherwise may exist at the time that the systems are offered to the Purchaser for PSA.
- SAC-4 In order to request PSA of the systems delivered under this Contract, the Contractor shall have completed the following actions:
- a. All deliverables under the Contract, have been supplied;
  - b. Approval of the SAT reports by the Purchaser;
  - c. The training courses and delivery of all training materials;
  - d. The delivery of all required special tools and test equipment, all spares and consumable items;
  - e. The delivery of all required documentation;
  - f. A deliverables inventory has been provided which details all the deliverables to be supplied under the terms of the contract;
  - g. The design documents have been supplied with updates to accurately reflect the "As Built" configuration and verification of the accuracy of the Documentation has taken place;
  - h. Certificates of Conformity (CoC) have been supplied that the equipment conforms to the contractual standards and applicable manufacturing standards;
  - i. A complete list of cryptographic keys, such as activation keys, feature keys, password lists and any other password and/or codes necessary for the Purchaser to operate the system from day to day, has been supplied to the Purchaser.
- SAC-5 At such time as the Contractor has completed the prerequisites defined above, he shall notify the Purchaser in writing that the systems are offered for PSA.
- SAC-6 This notification shall be accompanied by the PSA Report for the systems being offered.
- [187] The process of PSA review starts with the delivery of the PSA Report.
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- SAC-7 The PSA Reports submitted to the Purchaser for PSA (one report for each of the systems delivered under this Contract, i.e. Reference, Training and Operational (Batch 1 and 2) and shall include the following information:
- a. Status of each individual equipment, sub-systems i.e. installation, integration, notification, operation;
  - b. Complete test reports, for each of the all testing and acceptance events leading to PSA;
  - c. Reliability Maintainability and Availability (RMA) Analysis Report;
  - d. Status of inventory;
  - e. Status of documentation relevant to the acceptance e.g. as-built drawings, handbooks, quality assurance reports;
  - f. Status of codification action;
  - g. Status of training package;
  - h. The Deficiency Log, listing all the open deficiencies, and describing the resolution strategies and target dates, as agreed with the Purchaser.
- [188] Within 4 weeks of receipt of the PSA Report, the Purchaser will schedule a PSA Review Meeting.
- SAC-8 The PSA Meeting will be chaired by the Purchaser with the objectives of:
- a. providing a review of the status of each system, specifically reviewing and discussing the status of all observed deficiencies, as listed in the system's specific Deficiency Log;
  - b. establishing a list of all observed deficiencies which have yet to be corrected by the Contractor;
  - c. evaluating the list of outstanding deficiencies in relation to their combined effect on the suitability of the system for hand-over for actual operation, service delivery;
  - d. Providing an initial determination as to whether PSA may be granted. If PSA is not granted, establishing the basis for such determination. If PSA is granted, establishing the final list of deficiencies which shall be corrected by the Contractor prior to Final System Acceptance and a schedule for such corrections to take place.
- SAC-9 The Contractor shall prepare a written record of the PSA Review in the form of PSA Meeting minutes and submit to the Purchaser, within 1 week of the meeting.
- SAC-10 This PSA Review minutes shall be completed and signed by the representatives of the Contractor and Purchaser respectively.
- SAC-11 The PSA Review Minutes shall be forwarded to the Purchaser's Contracting Authority who will formalise the decisions of the PSA Meeting in writing and officially notify the Contractor of such decisions within two (2) weeks of receipt of the PSA Minutes.
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SAC-12 The Contractor shall note that any Certificate of Conformity provided at the time of the PSA meeting is considered to also be provisional pending correction of noted deficiencies before Final System Acceptance.

## **10.2 FINAL SYSTEM ACCEPTANCE**

[189] Final System Acceptance (FSA) is the act by which the Purchaser has evaluated and determined that the implemented TDCIS System meets the requirements of the Contract, and that the Contractor has fully delivered all requirements.

SAC-13 To achieve FSA, the Contractor shall demonstrate the following:

- a. The Contractor has met all of the PSA milestone requirements to be implemented under this contract;
- b. The Customer has successfully completed OpTEval, with Contractor support;
- c. The Contractor has executed all milestones and all implementation activities in accordance with this document to be implemented under this contract;
- d. The Contractor has delivered a complete and updated set of documents;
- e. The Contractor has executed all agreed test cases, and all tests shall have a status "PASS";
- f. All the identified deficiencies are either fixed or waived by the Purchaser;
- g. All training sessions have been conducted to the satisfaction of the Purchaser's staff participating in the sessions;
- h. Any regression testing of any changes resulting from OpTEval activities has been completed;
- i. The Contractor has delivered all deliverables, and conduct all activities, as specified in this contract;
- j. The Contractor shall close to the satisfaction of the Purchaser all outstanding issues, failures, and deficiencies;
- k. The Contractor shall update the training material as required, based on the Training Evaluation report and the training feedback from the OpTEval.

[190] A FSA meeting will be conveyed and chaired by the Purchaser when he considers that the deliverables are ready for Final Acceptance.

[191] The achievement of FSA is subject to the Purchaser approval.

SAC-14 The FSA Report shall include the following documentation:

- a. FSA Meeting Agenda;
- b. OpTEval Report;
- c. FSA Observations sheet;
- d. Final In-Service Support Plan (ISSP);

- e. Final Support case;
  - f. Final System Inventories;
  - g. Final Software Distribution List (SWDL);
  - h. Final Quality Assurance Log;
  - i. Final Configuration Status Accounting (CSA) Reports;
  - j. Configuration Management Database (CMDB), containing the Final Baseline Configuration (FBC), down to component-level configuration files (part of the TDCIS OBL);
  - k. Complete Requirements Management Database, in electronic form (e.g. USB or CD/DVD).
- SAC-15 The FSA Observations sheet shall be the log of any discrepancies and omissions carried over from PSAs and/or raised during the OpTEval, and not qualifying as off-specifications. These shall be listed together with a statement on the proposed resolution and resolution timeline (for discrepancies) or rationale for accepting them (for omissions), prior to declaring FSA.

# APPENDIX A SIX PHASE PLAN ON A PAGE (POAP)

## PRT TDCIS Implementation Plan Summary - Plan on a Page (POAP)

★ Key Milestones    
 🚫 Must Have's - Baseline    
 👤 Purchaser Interaction    
 💡 Definitions that will require developing

Phase 1 - DESIGN	Phase 2 - DEVELOPMENT	Phase 3 – Batch #1 BUILD	Phase 4 – Deliver Training, conduct UAT(E) and achieve PSA		
<ul style="list-style-type: none"> <li>System Requirements Agreed (i.e. Contract)</li> <li>Quantities, Scaling, Variances, Stakeholder Insert Points and 3<sup>rd</sup> Party Non-Disclosures all Agreed</li> <li>System Configuration Set</li> <li>OTI Defined</li> <li>HLD Agreed</li> <li>Crypto, Radios, APPs &amp; Svcs Scoped and Agreed (PFE)</li> <li>Outline Delivery Schedule</li> <li>Training delta defined</li> <li>Test Strategy Defined</li> <li>Security Models Defined</li> <li>Service Management Strategy Defined</li> </ul>	<ul style="list-style-type: none"> <li>Deliver Robust Schedule Of Delivery (as per SSS)</li> <li>Deliver an Apps &amp; Svcs Release Profile; at a minimum detailing config control, release variance and certification</li> <li>Deliver a VVRM that maps to the SRS</li> <li>Deliver the Defects &amp; Remediation Plan</li> <li>Provide (Routinely) System Release Notes</li> <li>Provide (Routinely) robust Test Scripts</li> <li>Provide a robust Environmental Test Plan</li> <li>Deliver 1<sup>st</sup> draft Security Aspects Letter</li> <li>RMADS Authentication Strategy all Req'd Security Docs</li> <li>Deliver 1<sup>st</sup> Training Plan</li> <li>Deliver the TNA + MA</li> <li>Carry out Sys Mgt Training</li> <li>Carry out Train-the-Trainer</li> <li>Provide all TDCIS Trg Materiel</li> <li>UAT(E) Trg Strategy</li> <li>Deliver 1<sup>st</sup> IPS Plan</li> <li>Carry out an ARM Assessment</li> <li>Identify a Ready Spares Pack</li> <li>Recommend Fuel Hardening</li> <li>Ratify Warranty Periods</li> <li>Define the strategy and commence authoring all TDCIS supporting Technical plus System Managers' &amp; Maintainers' documents. Develop plan for their controlled distribution to System Managers &amp; Maintainers</li> </ul>	<ul style="list-style-type: none"> <li><b>Tranche 1 – Factory State Node</b> Build Node Types in suitable racking that will:                             <ul style="list-style-type: none"> <li>Operate in xU, xR &amp; xS Security Tier</li> <li>Power-up to factory state node settings</li> </ul>                             Carry out First Article Inspection (FAI)                             <ul style="list-style-type: none"> <li>Preliminary First Article Acceptance Test (FAAT) on the CIS Node-State</li> </ul> </li> <li><b>Tranche 2 – Node Shelter</b> Build a Shelter to accommodate &amp; operate all node types Electro-Mechanically test the Shelter HS&amp;E qualify the Shelter Install CIS &amp; non-CIS modules common to all Node types Conduct Handling and Environmental Testing                             <ul style="list-style-type: none"> <li>Conduct a Preliminary FAAT on the Node Shelter</li> <li>Deliver 2 bare shelters to the Customer</li> </ul> </li> <li><b>Tranche 3 – Trailer</b> Build a Trailer with a chassis that will interoperate with:                             <ul style="list-style-type: none"> <li>GAR-T HCLOS Relay</li> <li>Rear Link Shelter</li> <li>All Node Shelter types</li> </ul>                             Electro-Mechanically Test the Trailer HS&amp;E qualify the Trailer Conduct Handling and Environmental Testing                             <ul style="list-style-type: none"> <li>Conduct a Preliminary FAAT on the Factory Trailer + CIS</li> </ul> </li> <li><b>Tranche 4 – Applications (Apps) &amp; Services (Svcs)</b> Build Apps &amp; Svcs in a representative operational environment that will provide:                             <ul style="list-style-type: none"> <li>Operating environments in xU, xR &amp; xS Tiers</li> <li>PFE FAS Integration</li> <li>Existing Services</li> <li>An ability to reconfigure from Factory to Mission states</li> <li>Conduct Vulnerability Testing to all Mission states</li> <li>Conduct FAAT on each of the Mission state Builds</li> </ul> </li> <li><b>Tranche 5 - First Article System Test</b> <ul style="list-style-type: none"> <li>Conduct Systems Integration:                                     <ul style="list-style-type: none"> <li>Shelter/Trailer + PFE + Core Build APPs &amp; Svcs = Node Shelter</li> <li>Representative Mission build of Node Types, Rear Link &amp; GAR-T</li> </ul> </li> <li>Prove Node reconfiguration: Factory → Node → Mission State</li> <li>Remediate all Defects and Baseline Repairs</li> <li>Support all National &amp; NATO Security Accreditation evolutions</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Codify and Deliver Batch #1 Assets to Training/UAT(E) Location</li> <li>Facilitate a Training Environment and Produce all Training Materiel</li> <li>In advance of UAT(E) deliver all final documentation for System Maintainers &amp; Managers</li> <li>Prior to UAT(E) deliver Training and Train-the-Trainers</li> <li>Conduct User Acceptance Testing (Equipment) (UAT(E))</li> <li>Achieve PSA</li> </ul> <p style="text-align: center;"><b>SOW Section 2 - WP 3, WP 4, WP 5</b></p> <p style="text-align: center;"><b>Phase 5 - Support OpTEVal, and Build Batches #2 &amp; #3</b></p> <table border="1" style="width: 100%;"> <tr> <td> <ul style="list-style-type: none"> <li>Support the Customer during OpTEVal</li> <li>Handover all Batch #1 Assets to the Customer</li> <li>Provide support to relocation of assets</li> <li>Provide Support to asset re-configuration</li> <li>Provide Support to Introduction to service</li> <li>Achieve successful OpTEVal</li> </ul> </td> <td> <ul style="list-style-type: none"> <li>Manufacture and Configure Batch #2</li> <li>Carry out Batch #2 Factory Acceptance Test (FAT)</li> <li>Deliver all Batch #2 Assets and Documentation</li> <li>Manufacture and Configure Batch #3</li> <li>Carry out Batch #3 FAT</li> <li>Deliver all Batch #3 Assets and Documentation</li> <li>Achieve successful Batch #2 &amp; #3 Acceptance</li> </ul> </td> </tr> </table> <p style="text-align: center;"><b>Phase 6 – Achieve FSA</b></p> <ul style="list-style-type: none"> <li>Support Service Transition to Live Service</li> <li>Support Full Systems Acceptance (FSA) evolutions</li> <li>Provision of Operational Baseline Software Release Package with all Shelter Node type images</li> <li>Validation of the FSA Requirements Set</li> <li>Provision of all finalised System Design, User &amp; Maintainer, and Reference document &amp; media sets</li> <li>Achieve FSA</li> <li>Commence 2 Year Contractor Warranty of all batch #1, #2 &amp; #3 Assets and Equipment</li> <li>Support Project Closure evolutions</li> </ul> <p style="text-align: center;"><b>Other Enablers to Successful Delivery</b></p> <ul style="list-style-type: none"> <li>Security Accreditation</li> <li>Integrated Product Support</li> <li>Training Evaluation and Delivery</li> </ul>	<ul style="list-style-type: none"> <li>Support the Customer during OpTEVal</li> <li>Handover all Batch #1 Assets to the Customer</li> <li>Provide support to relocation of assets</li> <li>Provide Support to asset re-configuration</li> <li>Provide Support to Introduction to service</li> <li>Achieve successful OpTEVal</li> </ul>	<ul style="list-style-type: none"> <li>Manufacture and Configure Batch #2</li> <li>Carry out Batch #2 Factory Acceptance Test (FAT)</li> <li>Deliver all Batch #2 Assets and Documentation</li> <li>Manufacture and Configure Batch #3</li> <li>Carry out Batch #3 FAT</li> <li>Deliver all Batch #3 Assets and Documentation</li> <li>Achieve successful Batch #2 &amp; #3 Acceptance</li> </ul>
<ul style="list-style-type: none"> <li>Support the Customer during OpTEVal</li> <li>Handover all Batch #1 Assets to the Customer</li> <li>Provide support to relocation of assets</li> <li>Provide Support to asset re-configuration</li> <li>Provide Support to Introduction to service</li> <li>Achieve successful OpTEVal</li> </ul>	<ul style="list-style-type: none"> <li>Manufacture and Configure Batch #2</li> <li>Carry out Batch #2 Factory Acceptance Test (FAT)</li> <li>Deliver all Batch #2 Assets and Documentation</li> <li>Manufacture and Configure Batch #3</li> <li>Carry out Batch #3 FAT</li> <li>Deliver all Batch #3 Assets and Documentation</li> <li>Achieve successful Batch #2 &amp; #3 Acceptance</li> </ul>				
<b>SOW Section 2 - WP 1</b>		<b>SOW Section 2 - WP 2</b>	<b>SOW WP6 &amp; WP7</b>		

## APPENDIX B REFERENCE DOCUMENTS

### B.1 APPLICABLE DOCUMENTS

#### B.1.1 INTEGRATED PRODUCT SUPPORT

The Contractor shall apply policies and standards contained within documents given in Table 29, in matters relating to the project's Integrated Product Support (IPS).

Table 29 – IPS Applicable Documents

Abbreviation	Full Document Name and Reference
[STANAG 4728, Ed.2]	System Life Cycle Management. Ed.2, 2015.
[AAP-20, Ed.C, Ver.1]	NATO Programme Management Framework (NATO Life Cycle Model). Ed.C, Ver.1, 2015.
[AAP-48, Ed.B, Ver.1]	NATO System Life Cycle Processes. Ed.B, Ver.1, 2013.
[ALP-10, Ed.C, Ver.1]	NATO Guidance on Integrated Product Support for Multinational Armament Programmes. Ed.C, Ver.1, 2017.
[STANAG 6001, Ed.5]	Language Proficiency Levels. Ed.5, 2014.
[STANAG 4280]	NATO Levels of Packaging
[STANAG 4281, Ed.3]	NATO Standard Marking for Shipment and Storage. Ed.3, 2016.
[STANAG 4329, Ed.4]	NATO Standard Bar Code Symbology's – AAP-44(A). Ed.4, 2010.
[AAP-44]	NATO Standard Bar Code Handbook

#### B.1.2 CONFIGURATION MANAGEMENT

The Contractor shall apply policies and standards contained within documents given in Table 30 matters relating to the project's Configuration Management (CM).

Table 30 – CM Applicable Documents

Abbreviation	Full document Name and Reference
[STANAG 4427, Ed.3]	Configuration Management in System Life Cycle Management. Ed.3, 2014.
[ACMP-2000, Ed.A, Ver.2]	Policy on configuration management. Ed.A, Ver.2, 2017.
[ACMP-2009, Ed.A, Ver.2]	Guidance on Configuration Management. Ed.A, Ver.2, 2017.
[ACMP-2100, Ed.A, Ver.2]	The Core Set of Configuration Management Contractual Requirements. Ed.A, Ver.2, 2017.

#### B.1.3 QUALITY MANAGEMENT

The Contractor shall apply policies and standards contained within documents given in Table 31, in matters relating to the project's Quality Assurance (QA).

Table 31 – QA Applicable Documents

Abbreviation	Full document Name and Reference
[AQAP-169]	NATO Guidance on the Use of AQAP-160 Edition 1, Edition 1, July 2001, NU
[AQAP-160]	NATO Integrated Quality Requirements for Software throughout the Life Cycle, Edition 1, July 2001, NU
[STANAG 4107, Ed.11]	Mutual Acceptance of Government Quality Assurance and Usage of the Allied Quality Assurance Publications. Ed.11, 2019.
[AQAP-4107, Ed.A, Ver.2]	Mutual Acceptance of Government Quality Assurance and Usage of the Allied Quality Assurance Publications (AQAP). Ed. A, Ver.2, 2018.
[AQAP-2000, Ed.3]	NATO Policy on an Integrated System Approach to Quality Through the Life Cycle. Ed.3, 2009.
[NATO AQAP-2009, 2010]	NATO – Allied Quality Assurance Publication 2009, “NATO guidance on the use of the AQAP 2000 series”, Edition 3, 2010
[AQAP-2070, Ed.B, Ver.3]	NATO Mutual Government Quality Assurance (GQA). Ed.B, Ver.3, 2015.
[AQAP-2105, Ed.C, Ver.1]	NATO Requirements for Quality Plans. Ed.C, Ver.1, 2019.
[AQAP-2110, Ed.D, Ver.1]	NATO Quality Assurance Requirements for Design, Development and Production. Ed.D, Ver.1, 2016.
[NATO AQAP-2120, 2010]	NATO – Allied Quality Assurance Publication 2120, “NATO QA requirements for production”, Edition 3, 2010
[AQAP-2131, Ed.C, Ver.1]	NATO Quality Assurance Requirements for Final Inspection and Test. Ed.C, Ver.1, 2017.
[AQAP-2210, Ed.A, Ver.2]	NATO Supplementary Software Quality Assurance Requirements to AQAP-2110 or AQAP-2310. Ed.A, Ver.2, 2015.
[AQAP-2310, Ed.B, Ver.1]	NATO Quality Assurance Requirements for Aviation, Space and Defence Contractors. Ed.B, Ver.1, 2017.

### B.1.4 DCIS CUBE ARCHITECTURE

The Contractor shall apply policies and standards contained within documents given in Table 32, in matters relating to the project’s DCIS Cube Architecture.

Table 32 – DCIS Cube Architecture

Abbreviation	Full document Name and Reference
[DCIS Cube ADD Main, 2018]	DCIS Cube Architecture Definition Document”, Version 1.0, NCIA/TR/2018/02530, NCI Agency, The Hague, Netherlands, 8 May 2018
[DCIS Cube ADD Annexes, 2018]	DCIS Cube Architecture – Annexes, DCIS Cube CBB and Dependencies on External ABB, Version 1.0, Annex to NCIA/TR/2018/02530, NCI Agency, The Hague, Netherlands, 8 May 201

**B.1.5 VM WARE SECURITY**

The Contractor shall apply policies and standards contained within documents given in Table 33, in matters relating to the project's Security.

Table 33 – VM ware Security Settings

Abbreviation	Full document Name and Reference
[Vmware ESXi 6.5 Security Settings, 2018]	Security Settings for VMware ESXi 6.5 Description and Values, Version 1.0, June 2018, NCI Agency, Mons, Belgium (NATO Unclassified)

**B.2 REFERENCE DOCUMENTS**

**B.2.1 INTEGRATED PRODUCT SUPPORT**

The Contractor shall refer to guidance and instructions contained within documents listed in Table 34, in matters relating to the project's IPS.

Table 34 – IPS Reference Documents

Abbreviation	Full document Name and Reference
[ISO/IEC 15288, 2015]	Systems and software engineering – System life cycle processes
[ISO/IEC 12207, 2008]	Systems and software engineering – Software life cycle processes
[ISO/IEC 25010, 2011]	Systems and software engineering – Systems and software Quality Requirements and Evaluation (SQuaRE) – System and software quality models
[IEC 60050]	International Electrotechnical Vocabulary (IEV) ( <a href="http://www.electropedia.org">www.electropedia.org</a> )
[AIA/ASD SX000i, 2016]	International guide for the use of the S-Series Integrated Logistic Support (ILS) specifications. Issue 1.1, 2016.
[AIA/ASD S3000L, 2014]	International Specification for Logistics Support Analysis – LSA. Issue 1.1, 2014.
[AIA/ASD S2000M, 2017]	International Specification for Material Management. Issue 6.1, 2017
[AIA/ASD S1000D, 2019]	International Specification for Technical Publications. Issue 5, 2019
[MIL-HDBK-338B]	Electronic Reliability Design Handbook
[MIL-HDBK-470A]	Designing and Developing Maintainable Products and Systems, Volume 1, US Department of Defense, 4 August 1997
[MIL-STD-1629A]	Procedures for performing a Failure Mode, Effects and Criticality Analysis
[SD-22]	Diminishing Manufacturing Sources and Material Shortages (DMSMS). 2016
[Bi-SC Directive 075-003]	Collective Training and Exercise Directive, 02 October 2013, NU
[Bi-SC Directive 075-007]	Education and Individual Training Directive, 10 September 2015, NU

Abbreviation	Full document Name and Reference
[NATO C3 Taxonomy Enclosure 1 to AC/322-D(2016)0017]	"C3 Taxonomy Baseline 2.0", 10 November 2015

### B.2.2 APPROVED FIELDED PRODUCT LIST

The Contractor shall refer to guidance and instructions contained within documents listed in Table 35, in matters relating to the project’s Approved Fielded Products.

Table 35 – Approved Fielded Products

Abbreviation	Full document Name and Reference
[AFPL]	Approved Fielded Product List, relevant to the NGCS (also known as NGCS AFPL), "NGCS AFPL 30 September 2014.xls".
[AAP-44(A)]	NATO Standard Bar Code Handbook, September 2010, NATO non-classified

### B.2.3 TESTING

Table 36 – Testing Reference Documents

Abbreviation	Full document Name and Reference
ISO/IEC/IEEE 29119-1:2013	Software and systems engineering — Software testing — Part 1: Concepts and definitions
ISO/IEC/IEEE 29119-2:2013	Software and systems engineering — Software testing — Part 2: Test processes
ISO/IEC/IEEE 29119-3:2013	Software and systems engineering — Software testing — Part 3: Test documentation
ISO/IEC/IEEE 29119-4:2015	Software and systems engineering — Software testing — Part 4: Test techniques
ISO/IEC 25010-2011	Systems and software engineering — Systems and software Quality Requirements and Evaluation (SQuaRE) — System and software quality models
IEEE Standard 15288.2:2014	IEEE Standard for Technical Reviews and Audits on Defense Programs
IEEE Standard 1016-2009	IEEE Standard for information technology - systems design - software design descriptions

### B.2.4 CONFIGURATION MANAGEMENT

The Contractor shall refer to guidance and instructions contained within documents listed in Table 37, in matters relating to the project’s CM.

Table 37 – CM Reference Documents

Abbreviation	Full document Name and Reference
[ISO 10007:2003]	Quality Management System – Guidelines for Configuration Management. Second edition, 2003
[ACMP-1]	NATO Requirements for the Preparation of Configuration Management Plans, Edition 2, February 2007, NU
[ACMP-2]	NATO Requirements for Configuration Identification, Edition 2, February 2007, NU
[ACMP-3]	NATO Requirements for Configuration Control – Engineering Changes, Deviations and Waivers, Edition 2, February 2007, NU
[ACMP-4]	NATO Requirements for Configuration Status Accounting and Configuration Data Management, Edition 2, February 2007, NU
[ACMP-5]	NATO Requirements for Configuration Audits, Edition 2, February 2007, NU
[ACMP-6]	NATO Configuration Management Terms and Definitions, Edition 2, February 2007, NU
[ACMP-7]	NATO Configuration Management Guidance on the Application of ACMP 1-6, Edition 2, February 2007, NU
[ACMP-2000]	Policy on Configuration Management, Edition A, Version 1, December 2014, NATO non-classified
[ACMP-2009]	Guidance on Configuration Management, Edition A, Version 1, December 2014, NATO non-classified
[STANAG 3150]	Codification – Uniform System of Supply Classification, STANAG 3150, Edition 8, January 2012, NU
[STANAG 3151]	Codification – Uniform System of Supply Classification, STANAG 3151, Edition 9, January 2012, NU
[STANREC 4174]	Guidance for Dependability Management, Edition 4, August 2014, NATO non-classified
[STANAG 4177]	Codification – Uniform System of Data Acquisition, Edition 5, January 2012, NU
[STANAG 4199]	Codification – Uniform System of Exchange of Materiel Management Data, STANAG 4199, Edition 4, January 2012, NU
[STANAG 4329]	NATO Standard Bar Code Symbologies (AAP-44A), Edition 4, September 2010, NATO non-classified
[STANAG 4427]	Configuration Management in System Life Cycle Management, Edition 3, 18 December 2014, NATO non-classified
[STANAG 4438]	Codification of Equipment – Uniform System of Dissemination of Data Associated with NATO Stock Numbers, STANAG 4438, Edition 2, January 2012, NU
[ACMP-2100]	Configuration Management Contractual Requirements, Edition A, Version 1, December 2014, NATO non-classified
[AcodP-1]	NATO Manual on Codification, January 2012, NU
[ADMP-1]	Guidance for Developing Dependability Requirements, Edition A Version 1, 14 August 2014, NATO non-classified



Abbreviation	Full document Name and Reference
[ADMP-2]	Guidance for Dependability In-Service, Edition A, Version 1, August 2014, NATO non-classified
[ArchiMate Exchange File Format]	ArchiMate® Model Exchange File Format for the ArchiMate Modeling Language, Version 3.0, Reference C174, 26 May 2017, at <a href="https://publications.opengroup.org/c174">https://publications.opengroup.org/c174</a>

## B.2.5 TRAINING

The Contractor shall refer to guidance and instructions contained within documents listed in Table 38 in matters relating to the project’s Training Products.

Table 38 – Training Products

Abbreviation	Full document Name and Reference
[Bi-SC Directive 075-003]	Collective Training and Exercise Directive, 02 October 2013, NU
[Bi-SC Directive 075-007]	Education and Individual Training Directive, 10 September 2015, NU
[NATO C3 Taxonomy]	Enclosure 1 to AC/322-D(2016)0017, “C3 Taxonomy Baseline 2.0”, 10 November 2015

## B.2.6 QUALITY ASSURANCE

The Contractor shall refer to guidance and instructions contained within documents listed in Table 39 in matters relating to the project’s Quality Assurance.

Table 39 – Quality Assurance Documents

Abbreviation	Full document Name and Reference
IEEE 12207	Systems and software engineering – Software life cycle processes international standard for software lifecycle processes

## B.2.7 NATO SECURITY

The following NATO Security documents are applicable:

- a. Security within the North Atlantic Treaty Organisation (C-M(2002)49), COR 12, dated 14 September 2015;
- b. Directive on Personnel Security (AC/35–D/2000–REV7), dated 07 January 2013;
- c. Directive on Physical Security (AC/35–D/2001–REV2), dated 07 January 2008;
- d. Directive on Security of Information (AC/35–D/2002–REV4), dated 17 January 2012;

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- e. Directive on Classified Project and Industrial Security (AC/35-D/2003-REV5), dated 13 May 2015;;
  - f. Primary Directive on CIS Security (AC/35-D/2004-REV3), dated 15 November 2013
  - g. Management Directive on CIS Security (AC/35-D/2005-REV3), dated 12 October 2015;
  - h. INFOSEC Technical & Implementation Directive on Cryptographic Security and Cryptographic Mechanisms (AC/322-D/0047-REV2 (INV), NATO RESTRICTED, dated 11 March 2009;
  - i. INFOSEC Technical & Implementation Directive for Computer and Local Area network (LAN) Security (AC/322-D/0048-REV2), NATO RESTRICTED, 09 December 201118
  - j. INFOSEC Technical & Implementation Directive on Emission Security (AC/322-D(2007)0036), NATO RESTRICTED, dated 12 July 2007;
  - k. Guidelines for the Security Accreditation of CIS (AC/35-D/1021-REV3), dated 31 January 2003;
  - l. Guidelines for Security Risk Management (SRM) of Communication and Information Systems (CIS) (AC/35-D/1017-REV3), dated 29 June 2017;
  - m. Guidelines for the Development of Security Requirement Statements (SRSs) (AC/35-D1015-REV3), NATO RESTRICTED, 31 January 2012;
  - n. Guidelines for the Structure and Content of Security Operating Procedures (SecOPs) for CIS (AC/35-D/1014-REV3), dated 31 January 2012;
  - o. Guidelines for the Security Evaluation and Certification of Communication and Information Systems (CIS) (AC/35-D/1019-REV1), dated 12 December 2008;
  - p. INFOSEC Technical & Implementation Directive for the Interconnection of Communication and Information Systems (CIS) (AC/322-D/0030-REV5), NATO RESTRICTED, dated 23 February 2011;
  - q. INFOSEC Technical & Implementation Guidance for the Interconnection of Communication and Information Systems (CIS) (AC/322-D(2005)0040), dated 17 October 2005;
  - r. INFOSEC Technical and Implementation Directive on the requirement for, and the Selection, Approval and Implementation of Security Tools (AC/322-D(2004)0030, NATO RESTRICTED, dated 17 May 2004;
  - s. INFOSEC Technical and Implementation Guidance for the Protection of CIS from Malicious Software (AC/322-D(2004)0019(INV), dated 09 March 2004;
  - t. INFOSEC Technical and Implementation guidance on Identification and Authentication (AC/322-D(2005)0044), NATO RESTRICTED, dated 26 October 2005;
  - u. INFOSEC Technical & Implementation Directive for Transmission Security

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<sup>18</sup> New version of this directive is under final review, therefore this new version might be provided upon contract award.

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(AC/322-D/0049), NATO RESTRICTED, dated 29 April 2002;

- v. INFOSEC Technical and Implementation Guidance for Electronic Labelling of NATO Information (AC/322-D(2004)0021), dated 16 March 2004;
- w. NATO Public Key Infrastructure (NPKI) Certificate Policy (AC/322-D(2004)0024-REV2-AS1), dated 18 January 2008;
- x. Security Configuration Catalogue, NCI Agency Cyber Security Service Line, v.1.10, dated April 2018<sup>19</sup>;
- y. NATO S\*CR\*T CIS Security Reference Baseline, Security Mechanisms (SMs) Requirements for Core and Site Services, version 2.0, dated 05 July 2017.

## **B.2.8 NATO TEMPLATES**

The following NATO Templates are applicable:

- a. Security Accreditation Plan Template, version 4.0, dated 08 July 2016;
- b. CIS Description Template, version 2.0, dated 02 May 2017;
- c. Security Risk Assessment (SRA) Report (NATO PILAR) Template, version 1.0, dated January 2013;
- d. System Security Requirements Statement (SSRS) Template, version 3.0, dated 12 January 2018;
- e. Abbreviated System Interconnection Security Requirements Statement (A-SISRS) Template, version 1.0, dated 19 September 2017;
- f. Secure AIS Generic SecOPs, version 1.0 dated 20.05.2014;
- g. Generic Security Test & Verification Plan, version 1.0, dated 17 February 2014;
- h. Electronic Security Environment Conformance Statement (ESECS) Template, dated 05.02.2018;
- i. Approval for Test Request Template, dated 23.01.2017.

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<sup>19</sup> New version might be provided upon contract award if available.

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## APPENDIX C PURCHASER FURNISHED EQUIPMENT

Table 40 – Equipment to be provided to the Contractor – **Refer to Annex A herein**

Table 41 - Antenna to be provided to the Contractor – **Refer to Annex A herein**

- [1] The design, production, testing and acceptance phases will include the integration of, and the interaction with, Purchaser Furnished Equipment (PFE) equipment.
- [2] PFE is the general term used throughout this document. PFE includes Purchaser Furnished:
- a. Equipment;
  - b. Information;
  - c. Software;
  - d. Configuration;
  - e. Connectivity;
  - f. SMEs (Access to); and
  - g. Facilities (e.g. Office space during CCT).
- [3] Two classes of PFE are considered:
- a. PFE that is handed over by the Purchaser to the Contractor, for integration INTO systems delivered under this contract.;
  - b. PFE staged and operated by the Purchaser, in the context of FAT, IV&V Assessment, SAT and OpTEval, for integration WITH the system delivered under this contract.
- [4] The following table provides the list of PFE. The following paragraphs provide additional details on the integration aspects (for both the INTO and WITH variants described above)