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Level 1 Maintenance Procedures – NCISG/DACCC/DCMs

TSGT3G DSO

Revision 3

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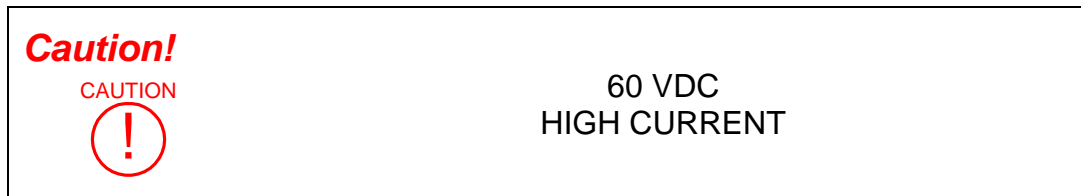
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ABOUT THIS DOCUMENT

This document describes the DSO TSGT preventive maintenance procedures to be performed by a Level 1 Operator.

CAUTION ICON

A Caution icon in the manual indicates a hazardous situation that if not avoided, may result in injury. A Caution icon may also be used to indicate other unsafe practices or risks of damage to the TSGT equipment.



POTENTIAL HAZARDS AND SAFETY PRECAUTIONS

While all precautions have been taken by Globecomm Systems, Inc. to eliminate and identify potential safety hazards in the TSGT System, personnel should exercise caution when installing, operating and servicing the equipment.

Care should be taken to prevent injury from electrical shock, pinch points and RF Radiation. Globecomm Systems, Inc. is not liable for any damage or injury arising from a technician's failure to follow instructions contained in this document or his or her failure to exercise due care and caution in the installation, operation and service of the TSGT equipment. Globecomm Systems, Inc. shall not be responsible for injury or damage resulting from improper procedures or from the use of improperly trained or inexperienced personnel performing such tasks.

This document is intended as a general guide for trained and qualified personnel who are aware of the dangers of handling potentially hazardous electrical and electronic circuits. This document is not intended to contain a complete statement of all safety precautions that should be observed by personnel in using this or other electronic equipment.

This system is integrated with high power amplifiers of traveling wave tubes and other high power amplifier technology and is capable of transmitting microwave energy at varying power levels. If transmitting microwave power, Globecomm Systems, Inc cautions the end-user to review all applicable local, federal and international regulations and to comply with all such regulations in the operation and maintenance of the integrated system.

The electrical currents and voltages associated with the equipment, whether supplied by Globecomm Systems, Inc or others, are dangerous. Personnel must, at all times, observe safety regulations.

SAFETY GUIDELINES

- Do not remove, short-circuit or tamper with interlock switches on access covers, doors, enclosures, gates, panels or shields.
- Keep away from live circuits.

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- Know your equipment and do not take risks.
- Always remove all power to the system prior to working on the antenna, the reflector assembly, the reflector backup assembly or the feed assembly.

RF Radiation Lockout Perimeter

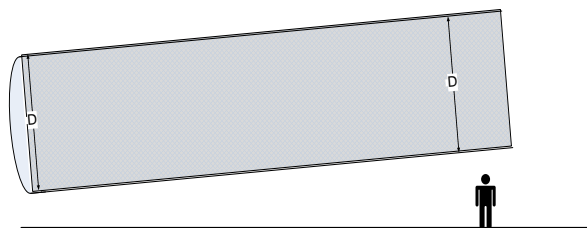
The TSGT antenna radiating surfaces can produce non-ionizing radiation levels more than maximum recommended exposure levels.

To determine the minimum 'safe' distance from the antenna requires calculating the Power Density in the direction of personnel or the object of concern. Minimum information required to calculate the Power Density is the distance to the object, angular offset of the antenna RF bore-sight to the object, and operating power levels. Formulae for calculating Power Density may be found in AECTP 250 Edition 1, Leaflet 258.

A simplified approach to determining safe area boundaries considers a baseline operating condition where only the lower limit of operational elevation angle is required. Baseline operating conditions are established for the T-1 and T-2 configurations as follows;

<u>Configuration</u>	<u>T-1</u>	<u>T-2</u>
Antenna	4.6m	2.4m
Antenna Centreline Height	3.1m	3.3m
HPA Configuration	1:1 Phase Combined	1:1 Phase Combined
Maximum TSGT EIRP	79 dBW	68 dBW
Near Field Length	148m	41m
Distance to Far Field	355m	97m
Max. Power Density Near Field	14 mW/cm ²	19 mW/cm ²
Max. Power Density Far Field	34 mW/cm ²	3 mW/cm ²

The baseline operating configurations result in radiation levels more than maximum recommended exposure levels when in line with the antenna main lobe. The antenna main lobe is a cone shaped projection assumed to have the same dimensions as the antenna main reflector.



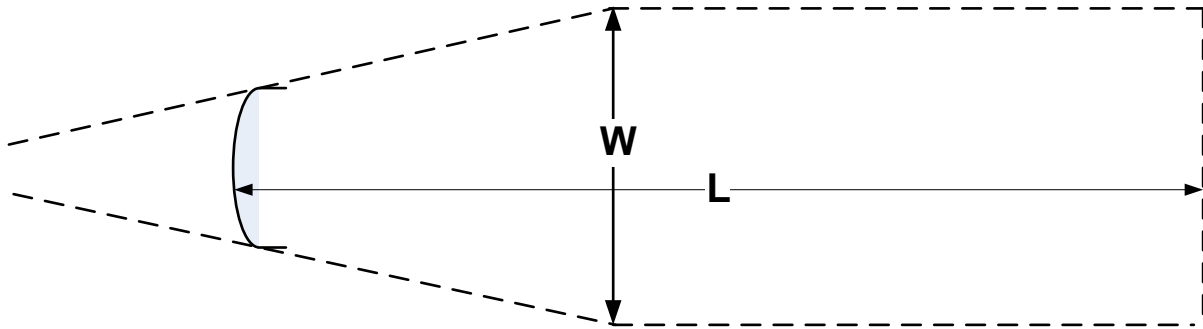
Antenna Main Lobe Projection

Due to the directivity of the radiated power a zone perimeter can be established by adhering to a few simple rules.

1. Never operate below a 5° antenna elevation angle
2. Always assume maximum transmitter power

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3. Always verify the main lobe is not in line with personnel or buildings.
4. Always consider the main lobe to be twice the diameter of the antenna at distances of twice the antenna diameter
5. Always consider the radiation field extends a minimum of 500m
6. Always wear your personal Radiation Monitor when working on or around an operating TSGT



TSGT Radiation Zone Perimeter


Antenna Operational Elevation Angle (°)	<u>T-1</u> Minimum Safe Area Dimension (m)		<u>T-2</u> Minimum Safe Area Dimension (m)	
	Length (L)	Width (W)	Length (L)	Width (W)
5	38	9	14	5
10	19	9	7	5
15	12	9	5	5
20	9	9	4	3
25	7	5	3	3
30	6	5	2	3
35	5	5	2	3
40	4	5	2	3
45	3.5	5	2	3

TSGT Radiation Zone Perimeter Dimensions

The TSGT setup procedure calls for a “Lockout Perimeter” to be established around the terminal to protect personnel from RF radiation.

Personal RF Radiation Monitor

Caution!
CAUTION



The Personal RF Radiation Monitor **MUST** be worn at all times while working around a transmitting TSGT.



To configure the Personal RF Radiation Monitor:

1. Configure the alarm for Vibrate, Alternating or Audio.
2. Turn ON the RF Radiation Monitor.

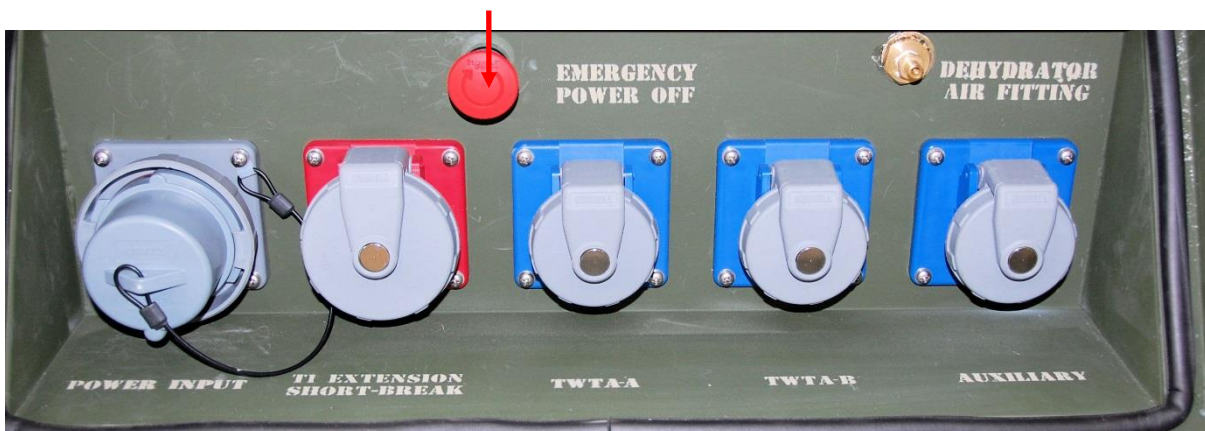
Note: While using the RF Radiation Monitor, an operator should not allow their person to be between the monitor and the Antenna for extended periods of time as this could decrease the effectiveness of the monitor. The RF Radiation Monitor should not be worn under clothing.

Emergency Power Off Controls

The TSGT is equipped with Power Emergency Off (EPO) switches at both the TSGT Container and the T-1 Extension Trailer.

One TSGT Container Emergency Power Off button is located on the Power ETB as illustrated below. Depressing this button cuts off all power to the TSGT terminal and should only be used in the event of an emergency.

TSGT Container Emergency Power Off



TSGT Container Power ETB Emergency Power Off

A second TSGT Container Emergency Power Off button is located the Left Side of the TSGT Container as illustrated below. Depressing this button cuts of all power to the TSGT terminal and should only be used in the event of an emergency.

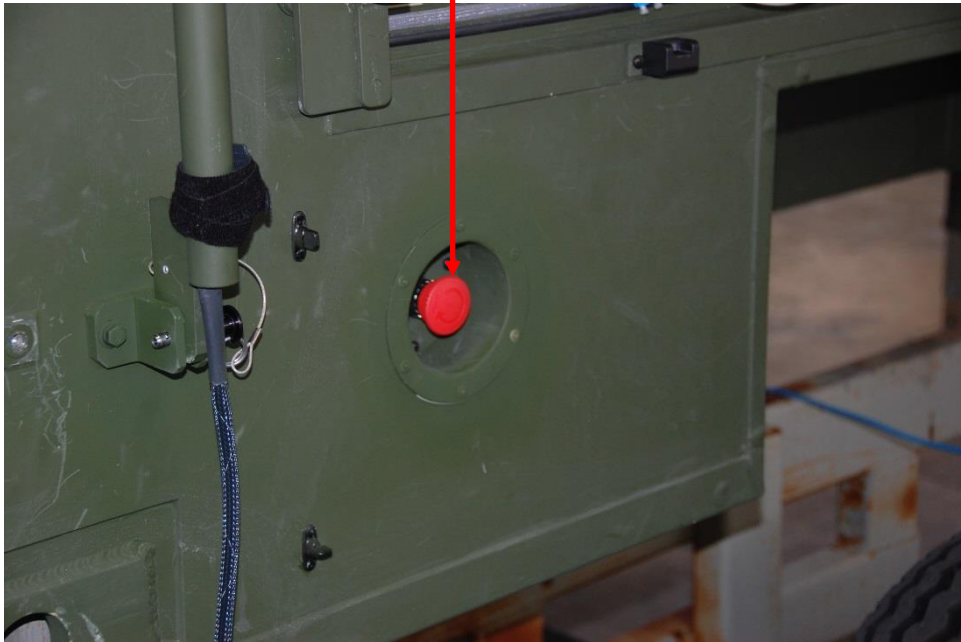
**TSGT Container Left Side
Emergency Power Off**



TSGT Container Left Side Emergency Power Off

A third TSGT Container Emergency Power Off button is located the Right Side of the TSGT Container as illustrated below. Depressing this button cuts of all power to the TSGT terminal and should only be used in the event of an emergency.

**TSGT Container Right Side
Emergency Power Off**



TSGT Container Right Side Emergency Power Off

The T-1 Extension Trailer is equipped with an Emergency Power Off button located at the front of the Trailer Power Panel and illustrated below. Depressing this button cuts of all power to the T-1 Extension Trailer and should only be used in the event of an emergency.

**T-1 Trailer Emergency
Power Off**



T-1 Extension Trailer Power ETB Emergency Power Off Button

Emergency Power Off Protection Switches

The TSGT is equipped with Power Emergency Off (EPO) protection switches at the TSGT Container. If any of these switches are activated, all power to the TSGT is shut off.

- Dirty Power Panel Plate
- Clean Power Panel Plate
- Dirty Power Vault Access (TSGT Container centre aisle)
- Clean Power Vault Access (TSGT Container centre aisle)

Safety Procedures

The following safety procedures are listed to remind those performing any work on the antenna system that safety rules must be observed. Failure to observe safety rules may result in serious injury or death. Always work safely and in accordance with established procedures.

- Always wear the RF Radiation Monitor when working on or near a TSGT terminal.
- Care shall be taken in all operations to safeguard other people as well as property and to comply with all local safety procedures as established by the customer's site representative, as well as local building codes and fire protection standards.
- Never make internal adjustments or perform maintenance or service when alone or fatigued.
- Do not stand in the direct path of the feed system when the system is transmitting!
- Do not work on the feed system when the TSGT is transmitting!

WIND SPEED WARNINGS

T-1 4.6m Antenna

The T-1 4.6m antenna should not be deployed in wind speeds more than **36 km/h**.

The T-1 4.6m antenna can survive in up to **108 km/h** winds at any position. In winds above **108 km/h**, the antenna must be stowed to ensure survival.

If wind speeds are below **36 km/h**, the T-1 4.6m antenna can be stowed per the procedure described in Section 3.4.2.2 of the DSO TSGT O&M manual.

To stow the T-1 4.6m antenna in winds speeds exceeding **36 km/h**, the antenna must be stowed by an alternate method where the antenna wings are not folded and secured before the reflector is lowered to its stowed position, as described in Section 3.4.2.3 of the DSO TSGT O&M manual.

T-2 2.4m Antenna

The T-2 2.4m antenna should not be deployed in wind speeds more than **120 km/h**.

The T-2 2.4m antenna can survive in up to **120 km/h** winds at any position. In winds above **120 km/h**, the antenna must be stowed to ensure survival.

The T-2 4.6m antenna can be stowed per the procedure described on Section 3.4.2 of the DSO TSGT O&M manual.

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1 LEVEL 1 OPERATOR TSGT 3G DSO MAINTENANCE

Level 1 TSGT Maintenance is the preventive maintenance to be performed routinely by the NCISG/DACCC/DCMs, when it is in operation and when it is not in operation.

When a terminal is in operation, this includes:

1. Daily logging TSGT meter readings
2. Daily, weekly, and monthly inspection and cleaning
3. Periodic T-1 4.6m antenna lubrication
- 4.

When a terminal is not in operation, this includes:

1. Daily, weekly, and monthly inspection and cleaning
2. Periodic T-1 4.6m antenna lubrication

1.1 TSGT3G DSO Training Check

In the space below, please indicate the NCI Academy training courses that the Operator(s) performing these procedures has received on the TSGT3G DSO. Include the name of the Operator(s) and the name and dates of the training course(s).

2 TSGT3G DSO SAFETY PRECAUTIONS

Before proceeding with this document, read the section on TSGT3G DSO safety, beginning on page v of this document.

Personal RF Radiation Meter

Caution!

CAUTION



The Personal RF Radiation Monitor **MUST** be worn at all times while working around a transmitting TSGT.



To configure the Personal RF Radiation Monitor:

1. Configure the alarm for Vibrate, Alternating or Audio.
2. Turn ON the RF Radiation Monitor.

Note: While using the RF Radiation Monitor, an operator should not allow their person to be between the monitor and the Antenna for extended periods of time as this could decrease the effectiveness of the monitor. The RF Radiation Monitor should not be worn under clothing.

3 LEVEL 1 TSGT3G DSO MAINTENANCE PROCEDURES

3.1 Daily TSGT3G DSO Meter Readings

Daily TSGT meter readings are to be recorded daily only on a terminal that is in operation. The operator should take notice of any drift or unusual changes in any parameter. Table 3.1-1 lists the reading that can be taken via the ASNMC.

Table 3.1-2 Daily TSGT3G DSO Readings at Container

lists the readings that must be taken at the TSGT Container.

Table 3.1-1 Daily TSGT3G DSO ASNMC Readings									
		Expected	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
	Operator:								
	Date:								
Screen	Parameter								
T-2 System Overview	T-2 Beacon Level (dBm)		_____	_____	_____	_____	_____	_____	_____
	Wind Speed (km/h)		_____	_____	_____	_____	_____	_____	_____
	Temperature (°C)		_____	_____	_____	_____	_____	_____	_____
	Humidity (%)		_____	_____	_____	_____	_____	_____	_____
	T-2 On-Line BUC (A/B)	A	_____	_____	_____	_____	_____	_____	_____
	T-2 On-Line BDC (A/B)	A	_____	_____	_____	_____	_____	_____	_____
	T-2 On-Line LNA (A/B)	A	_____	_____	_____	_____	_____	_____	_____
	T-2 SSPA Switching Mode (Auto/Man)	Auto	_____	_____	_____	_____	_____	_____	_____
	SSPA A (On-Line/Off-line/Maint)	On-Line	_____	_____	_____	_____	_____	_____	_____
	SSPA B (On-Line/Off-line/Maint)	On-Line	_____	_____	_____	_____	_____	_____	_____
Dehydrator	Pressure (mbar)		_____	_____	_____	_____	_____	_____	_____
	Temperature (°C)		_____	_____	_____	_____	_____	_____	_____
	Duty Cycle (%)	<20%	_____	_____	_____	_____	_____	_____	_____
Screen	Parameter								
AC Meter	V _{L-L} AVG (VAC)		_____	_____	_____	_____	_____	_____	_____
	V _{L-L} Per Phase (VAC)		_____	_____	_____	_____	_____	_____	_____

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Table 3.1-1 Daily TSGT3G DSO ASNMC Readings									
		Expected	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
	I _{AVG} (A)		_____	_____	_____	_____	_____	_____	_____
	I _{AVG} Per Phase (A)		_____	_____	_____	_____	_____	_____	_____
	Power Total (kW)		_____	_____	_____	_____	_____	_____	_____
	Current Peak Demand Per Phase (W)		_____	_____	_____	_____	_____	_____	_____
	Power Peak Demand (kW)		_____	_____	_____	_____	_____	_____	_____
	Frequency (Hz)		_____	_____	_____	_____	_____	_____	_____
SSPA A	RF Power Level (dBm)		_____	_____	_____	_____	_____	_____	_____
	Attenuation Level (dB)		_____	_____	_____	_____	_____	_____	_____
	RF Power Detector #1 Forward Power (dBm)		_____	_____	_____	_____	_____	_____	_____
	RF Power Detector #1 Reflected Power (mW)		_____	_____	_____	_____	_____	_____	_____
	SSPA Current (A)		_____	_____	_____	_____	_____	_____	_____
	Temperature (°C)		_____	_____	_____	_____	_____	_____	_____
SSPA B	RF Power Level (dBm)		_____	_____	_____	_____	_____	_____	_____
	Attenuation Level (dB)		_____	_____	_____	_____	_____	_____	_____
	RF Power Detector #1 Forward Power (dBm)		_____	_____	_____	_____	_____	_____	_____
Screen	Parameter								
SSPA B	RF Power Detector #1 Reflected Power (mW)		_____	_____	_____	_____	_____	_____	_____

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Table 3.1-1 Daily TSGT3G DSO ASNMC Readings									
		Expected	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
	SSPA Current (A)		_____	_____	_____	_____	_____	_____	_____
	Temperature (°C)		_____	_____	_____	_____	_____	_____	_____
GPS Rcvr. A	Rcvr 1 Signal Quality		_____	_____	_____	_____	_____	_____	_____
	Rcvr 1 Temperature (°)		_____	_____	_____	_____	_____	_____	_____
GPS Rcvr. B	Receiver 2 Signal Quality		_____	_____	_____	_____	_____	_____	_____
	Receiver 2 Temperature (°)		_____	_____	_____	_____	_____	_____	_____
Dist. Amp. A	10 MHz Dist. Amp 1 Status		_____	_____	_____	_____	_____	_____	_____
Dist. Amp. B	10 MHz Dist. Amp 1 Status		_____	_____	_____	_____	_____	_____	_____
Generators	Generator 1 Status		_____	_____	_____	_____	_____	_____	_____
	Generator 2 Status		_____	_____	_____	_____	_____	_____	_____
SCR 1	SCR 1 Temperature 1 (°C)		_____	_____	_____	_____	_____	_____	_____
	SCR 1 Temperature 2 (°C)		_____	_____	_____	_____	_____	_____	_____
Switch 1	Switch 1 Temp (°C)		_____	_____	_____	_____	_____	_____	_____
SCR 2	SCR 1 Temperature 1 (°C)		_____	_____	_____	_____	_____	_____	_____
	SCR 1 Temperature 2 (°C)		_____	_____	_____	_____	_____	_____	_____
Switch 1	Switch 1 Temp (°C)		_____	_____	_____	_____	_____	_____	_____
Screen	Parameter								
	T-1 Beacon Level (dBm)		_____	_____	_____	_____	_____	_____	_____

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Table 3.1-1 Daily TSGT3G DSO ASNMC Readings									
		Expected	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
T-1 System Overview	T-1 On-Line BUC (A/B)		_____	_____	_____	_____	_____	_____	_____
	T-1 On-Line BDC (A/B)		_____	_____	_____	_____	_____	_____	_____
	T-1 On-Line LNA (A/B)		_____	_____	_____	_____	_____	_____	_____
	HPA A (On-Line/Off-line/Maint)		_____	_____	_____	_____	_____	_____	_____
	HPA B (On-Line/Off-line/Maint)		_____	_____	_____	_____	_____	_____	_____
T-1 HPA A	Operating State (Stby/Beam ON)		_____	_____	_____	_____	_____	_____	_____
	RF Output Power (dBm)		_____	_____	_____	_____	_____	_____	_____
	Attenuation (dB)		_____	_____	_____	_____	_____	_____	_____
	Helix Voltage (kV)		_____	_____	_____	_____	_____	_____	_____
	Helix Current (A)		_____	_____	_____	_____	_____	_____	_____
	Reflected RF (W)		_____	_____	_____	_____	_____	_____	_____
	Tube Temperature (°C)		_____	_____	_____	_____	_____	_____	_____
T-1 HPA B	Operating State (Stby/Beam ON)		_____	_____	_____	_____	_____	_____	_____
	RF Output Power (dBm)		_____	_____	_____	_____	_____	_____	_____
	Attenuation (dB)		_____	_____	_____	_____	_____	_____	_____
	Helix Voltage (kV)		_____	_____	_____	_____	_____	_____	_____
	Helix Current (A)		_____	_____	_____	_____	_____	_____	_____
	Reflected RF (W)		_____	_____	_____	_____	_____	_____	_____
	Tube Temperature (°C)		_____	_____	_____	_____	_____	_____	_____
Screen	Parameter								
	Eb/No (dB)		_____	_____	_____	_____	_____	_____	_____

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Table 3.1-1 Daily TSGT3G DSO ASNMC Readings									
		Expected	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
EBEM Modem 1	Rx Signal Level (dBm)		_____	_____	_____	_____	_____	_____	_____
	Rx BER		_____	_____	_____	_____	_____	_____	_____
	Tx Power (dBm)		_____	_____	_____	_____	_____	_____	_____
EBEM Modem 2	Eb/No (dB)		_____	_____	_____	_____	_____	_____	_____
	Rx Signal Level (dBm)		_____	_____	_____	_____	_____	_____	_____
	Rx BER		_____	_____	_____	_____	_____	_____	_____
EBEM Modem 3	Tx Power (dBm)		_____	_____	_____	_____	_____	_____	_____
	Eb/No (dB)		_____	_____	_____	_____	_____	_____	_____
	Rx Signal Level (dBm)		_____	_____	_____	_____	_____	_____	_____
EBEM Modem 4	Rx BER		_____	_____	_____	_____	_____	_____	_____
	Tx Power (dBm)		_____	_____	_____	_____	_____	_____	_____
	Eb/No (dB)		_____	_____	_____	_____	_____	_____	_____
EMS Modem 1	Rx Signal Level (dBm)		_____	_____	_____	_____	_____	_____	_____
	Rx BER		_____	_____	_____	_____	_____	_____	_____
	Tx Power (dBm)		_____	_____	_____	_____	_____	_____	_____
Screen	Parameter								
	Eb/No (dB)		_____	_____	_____	_____	_____	_____	_____

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Table 3.1-1 Daily TSGT3G DSO ASNMC Readings									
		Expected	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
EMS Modem 2	Rx Signal Level (dBm)		_____	_____	_____	_____	_____	_____	_____
	Rx BER		_____	_____	_____	_____	_____	_____	_____
	Tx Power (dBm)		_____	_____	_____	_____	_____	_____	_____
EMS Modem 3	Eb/No (dB)		_____	_____	_____	_____	_____	_____	_____
	Rx Signal Level (dBm)		_____	_____	_____	_____	_____	_____	_____
	Rx BER		_____	_____	_____	_____	_____	_____	_____
	Tx Power (dBm)		_____	_____	_____	_____	_____	_____	_____
EMS Modem 4	Eb/No (dB)		_____	_____	_____	_____	_____	_____	_____
	Rx Signal Level (dBm)		_____	_____	_____	_____	_____	_____	_____
	Rx BER		_____	_____	_____	_____	_____	_____	_____
	Tx Power (dBm)		_____	_____	_____	_____	_____	_____	_____
T-1 & T-2 System Overview	Confirm all redundant subsystem switching is in Remote mode and Auto mode (SSPA/HPA/LNA/BUC/BDC/TFRS)		_____	_____	_____	_____	_____	_____	_____

Table 3.1-2 Daily TSGT3G DSO Readings at Container									
Subsystem	Parameter	Expected	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
ECU (Centre Aisle)	ECU A Temp (°C)	25°C	_____	_____	_____	_____	_____	_____	_____
	ECU B Temp (°C)	25°C	_____	_____	_____	_____	_____	_____	_____
	ECU C Temp (°C)	25°C	_____	_____	_____	_____	_____	_____	_____
Rectifier Controller	UPS Voltage (V)	54.4V	_____	_____	_____	_____	_____	_____	_____
	Battery Current (A)	Varies	_____	_____	_____	_____	_____	_____	_____
GPFU	Container Pressurization (See Section 3.1.1)	2 mbar	_____	_____	_____	_____	_____	_____	_____

3.1.1 TSGT3G DSO Container Pressurization Check

1. Close all doors to the TSGT Container, except the door to the TSGT Container Battery Compartment.
2. Confirm that the GPFU FILTER/BYPASS switch is set to BYPASS.
3. In the Battery Compartment, check the differential pressure between the clean and dirty compartments at the differential pressure meter along the wall left of the dehydrator.
4. The differential pressure should be 2 mbar.

Note: *If the pressure reading is too low, it could be due to obstructions at the GPFU air filters. Confirm they are clean before adjusting the Air Flow Control. See Section 3.2.2.1.*

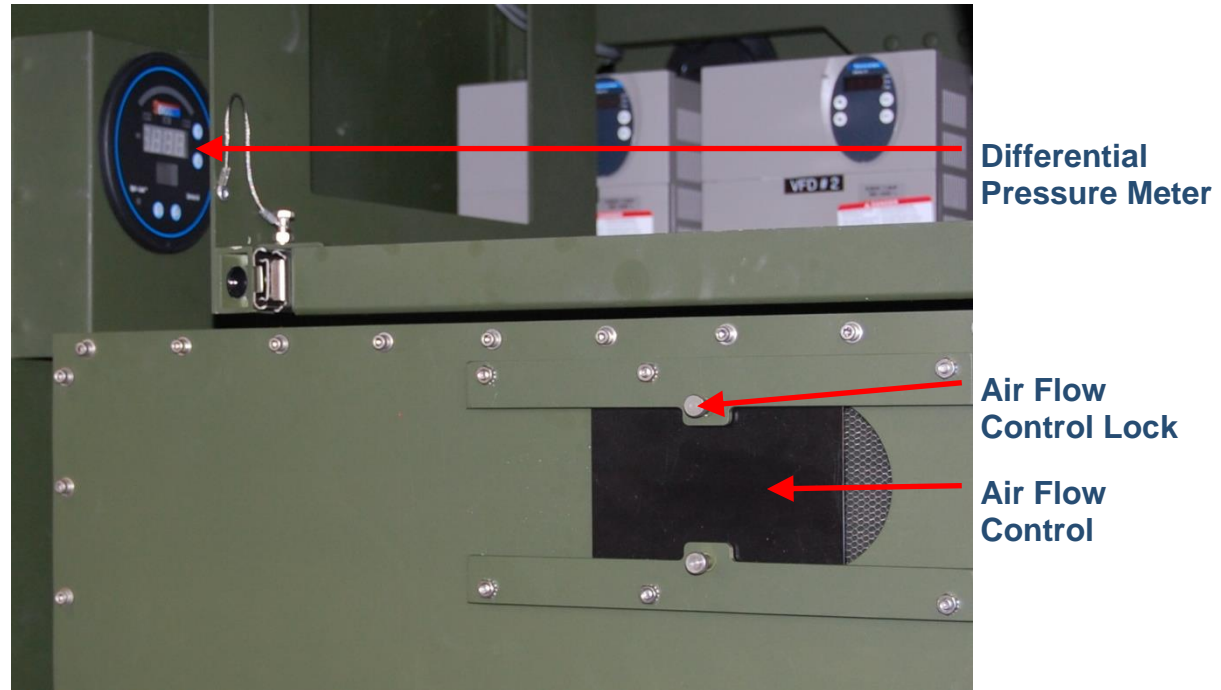


Figure 3.1.1-1 Differential Pressure Meter and Air Flow Control

5. If necessary, adjust the Air Flow Control to read 2 mbar. The Air Flow Control should be approximately in the position shown when the terminal is at sea level.
6. Close the door to the Battery Compartment.

3.2 Routine Inspection and Cleaning

3.2.1 Level 1 Daily Inspection

Note: Notify Level 2 of any need for repair or touch-up noted during inspection. Space is reserved at the end of this table to not issues that should be reported to Level 2.

Table 3.2.1-1 Level 1 TSGT3G DSO Daily Inspection Checklist								
		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
	Operator:							
	Date:							
Subsystem	Item							
Container	Inspect all structural components - materials, welds, EMI gaskets, weather gaskets....	_____	_____	_____	_____	_____	_____	_____
ECU	Make sure ECU doors are open (3 places)	_____	_____	_____	_____	_____	_____	_____
T-2 SSPAs	Check fan underneath each SSPA for obstructions. Remove obstructions if possible or notify Level 2.	_____	_____	_____	_____	_____	_____	_____
	Listen for smooth fan operation. Notify Level 2, if necessary.	_____	_____	_____	_____	_____	_____	_____
T-1 Antenna	Inspect antenna surface for signs of coating damage.	_____	_____	_____	_____	_____	_____	_____
	Inspect all structural components - materials, welds, and finishes for signs of wear, rubbing, binding and fatigue failure.	_____	_____	_____	_____	_____	_____	_____
	Check Structures for loose or missing hardware.	_____	_____	_____	_____	_____	_____	_____
	Inspect elevation jack screw boots for tears, clamp fit and function.	_____	_____	_____	_____	_____	_____	_____

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Table 3.2.1-1 Level 1 TSGT3G DSO Daily Inspection Checklist								
		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
	Operator:							
	Date:							
Subsystem	Item							
	Inspect main reflector for corrosion and adequate lubrication.	_____	_____	_____	_____	_____	_____	_____
T-1 TWTAs	Listen for smooth fan operation. Notify Level 2, if necessary.	_____	_____	_____	_____	_____	_____	_____
Generator	Check fuel level. Fill to 80% if level is below 80%.	_____	_____	_____	_____	_____	_____	_____
	Check inside for signs of oil leaks (oil on floor).	_____	_____	_____	_____	_____	_____	_____
	Check inside for signs of fuel leaks (fuel on floor)	_____	_____	_____	_____	_____	_____	_____
	Check wiring and connectors for burn marks or deformity	_____	_____	_____	_____	_____	_____	_____
	Check for loose wire connections	_____	_____	_____	_____	_____	_____	_____
	Check running hours since last air filter cleaning. Clean air filter if > 250 hours (see Figure 3.2.1-1) and note current running hours mark.	_____	_____	_____	_____	_____	_____	_____
ISSUES TO BE REPORTED TO LEVEL 2								

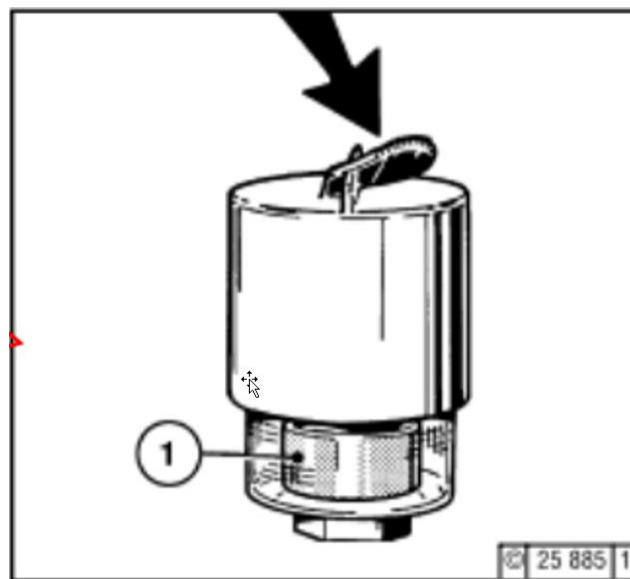


Figure 3.2.1-1 Air Filter with Indicator

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3.2.2 Level 1 Weekly Inspection

Note: Notify Level 2 of any need for repair or touch-up noted during inspection.

Table 3.2.2-1 Level 1 TSGT3G DSO Weekly Inspection Checklist			
			Operator:
			Date:
Subsystem	Item	Activity	Check
GPFU <i>Note: Check more frequently in a dusty environment.</i>	Check Coarse and Fine Filters. Reference Section 3.2.2.1.	Clean or replace as necessary.	_____
	Check GPFU Air Intake at Container. Reference Section 3.2.2.2.	Clean as necessary	_____
	Confirm GPFU FILTER/BYPASS switch is set to BYPASS	Set to BYPASS if necessary.	_____
ECU	Check cleanliness of all three condensers at the outside of Container. Reference Error! Reference source not found.	Clean with pressurized air, water, or vacuum as necessary.	_____
Trailer	Check suspension	Check clearances around all moving suspension parts, air springs, ties and shock absorbers	_____
	Check axle connection weld and bolt connections	Make sure they are secure.	_____
Generator	Check running hours since last oil change.	Replace oil and oil filter if >500 hours (see) Figure 3.2.2-3 and note current running hours mark.	_____
	Is Common battery switch open (See Figure 3.2.2-3)	Open if necessary.	_____
	Is generator connected to mains?	Connect generator to mains if necessary	_____

Note: When fins are clogged as shown it is unlikely that the ECU will function properly. One indication of this is ice forming on the cooling pipes.



Clogged Fins



Clean Fins

Figure 3.2.2-1 ECU Filter at Side of Container

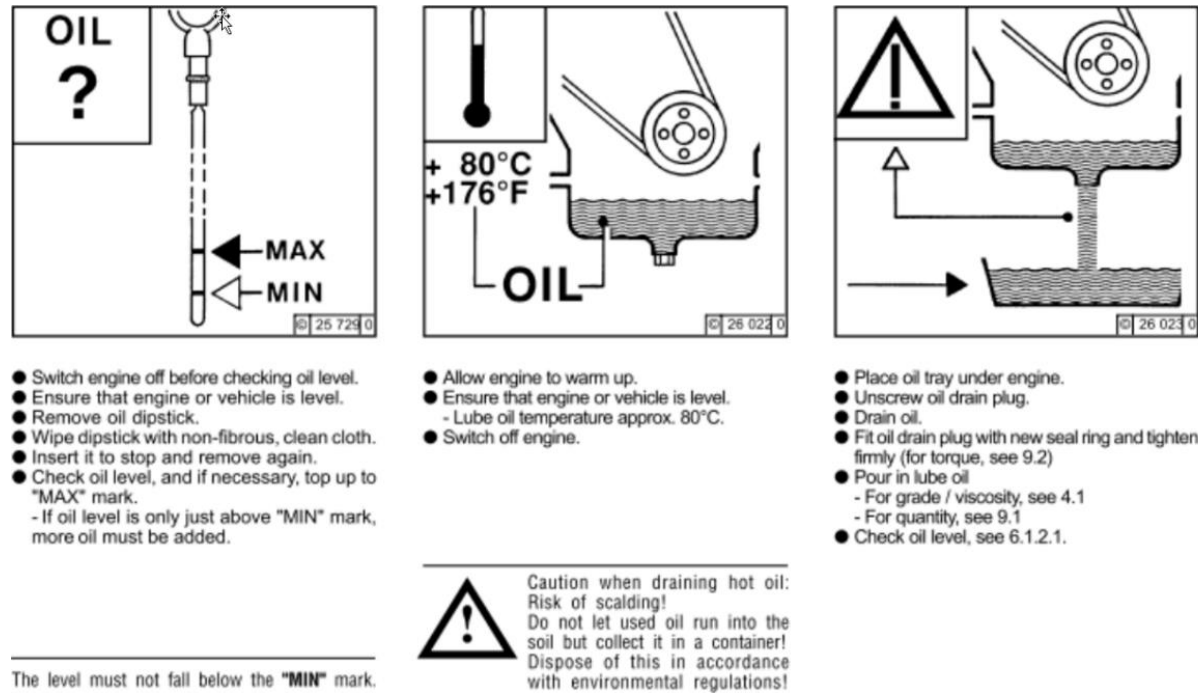


Figure 3.2.2-2 Check and Change Generator Oil Level

Note: Use 15W40 mineral oil for refill.

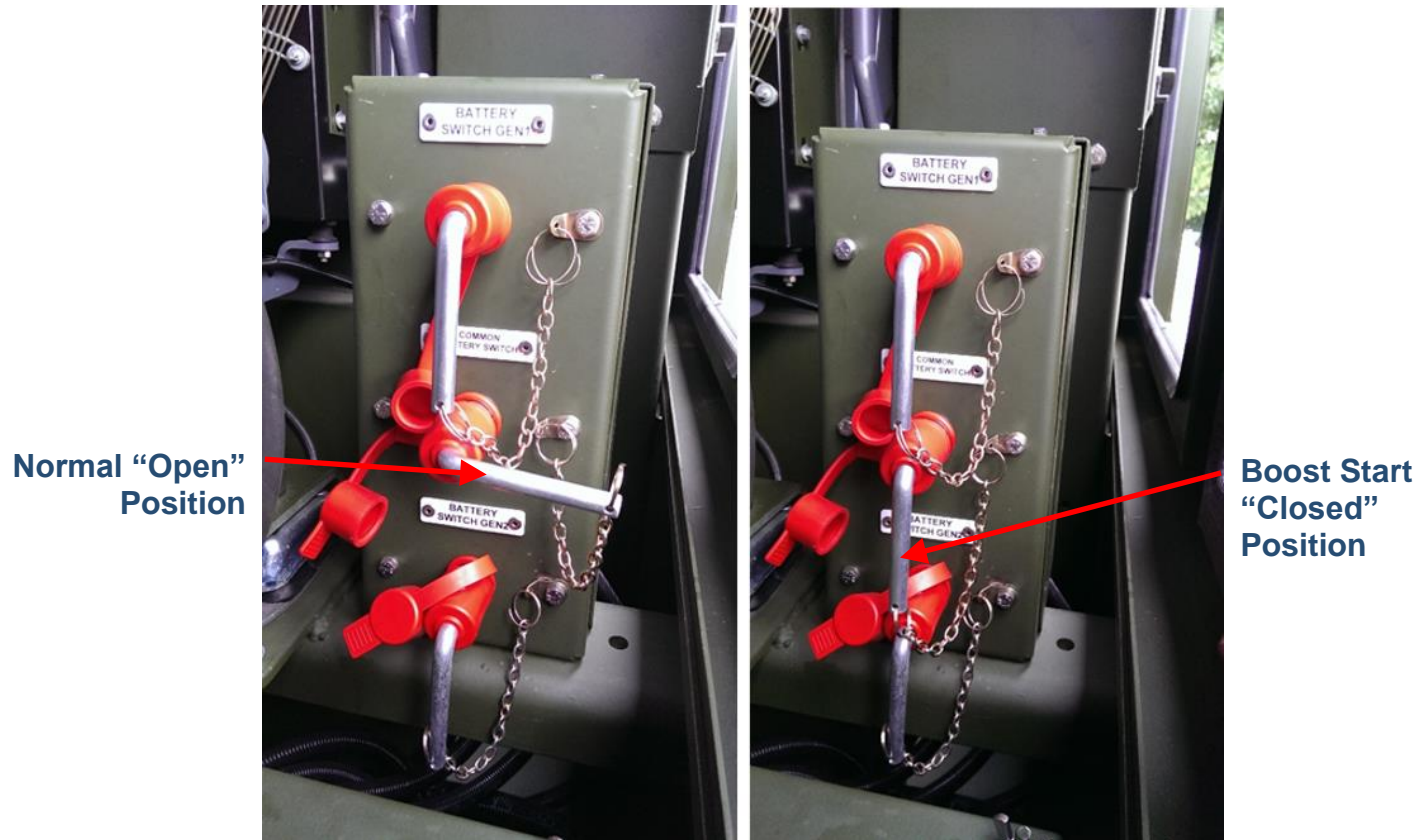


Figure 3.2.2-3 Generator Common Battery Switch

Important: Always leave the common battery switch in **Normal "Open"** position. Only close switch for boost start and open switch immediately after.

3.2.2.1 GPFU Coarse and Fine Filter Inspection and Replacement

Removal Procedure

1. Turn OFF the GPFU Fan at CB29 on the Clean Power Distribution Panel.
2. Pull back the two (2) retaining clips on the GPFU Fine/Coarse Filter Compartment.
 - a. Open the door to the Fine/Coarse Filter Compartment.
 - b. Remove and inspect the Coarse Filter.
 - c. Remove and inspect the Fine Filter.

Replace Procedure

1. Retrieve clean Coarse Filters from the Filter Storage Compartment.
2. Replace the filters.
 - a. Close the door to the Fine/Coarse Filter Compartment.
 - b. Snap the two (2) retaining clips closed to secure the GPFU Fine/Coarse Filter Compartment.
 - c. Turn ON the GPFU Fan at CB29 of the Clean Power Distribution Panel.
3. Clean the removed filters with soap and water.
4. Air dry the washed filters.
5. Return the filters to storage.

Confirm Operation

Ensure that the GPFU is functioning properly. The TSGT Container should have a positive pressure indication of 2 mbar at the Differential Pressure Meter located inside the TSGT Container Battery Compartment.

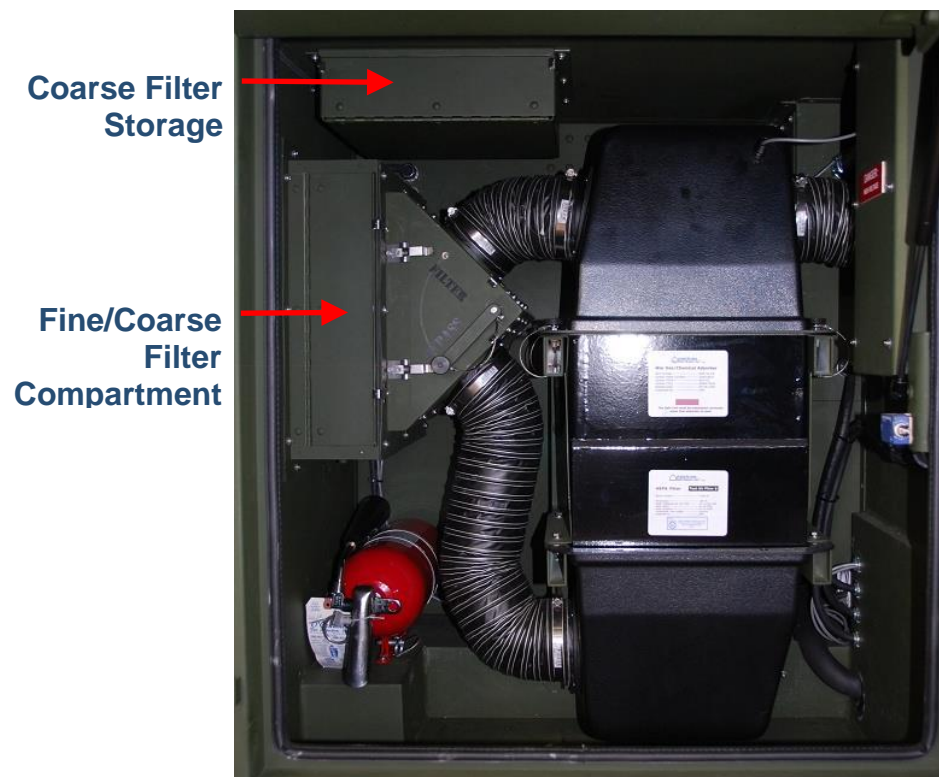


Figure 3.2.2.1-1 GPFU Fine/Coarse Filter Identification

3.2.2.2 GPFU Air Intake Cleaning

The following figures show the GPFU air intake cleaning referenced in Table 3.2.2-1.



Figure 3.2.2.2-1 Dirty GPFU Air Intake



Figure 3.2.2.2-2 Cleaning GPFU Air Intake on Dismounted Container



Figure 3.2.2.2-3 Cleaning GPFU Air Intake on Mounted Container



Figure 3.2.2.2-4 GPFU Air Intake After Cleaning

3.2.3 Level 1 Monthly Inspection

Table 3.2.3-1 Level 1 TSGT3G DSO Monthly Inspection Checklist			
			Operator:
			Date:
Subsystem	Item	Activity	Check
Generator	Check expiry date of the fire extinguisher.	Replace if expired.	_____
	Check fire extinguisher seal.	Replace fire extinguisher if seal broken.	_____
	Check oil level. Reference Figure 3.2.3-1.	Refill to maximum if below minimum.	_____
	Check air filter indicator. Reference Figure 3.2.1-1.	Clean air filter if indicator indicates dirty.	_____
	Generator, after running for 15 minutes	Confirm generator is running smoothly	_____

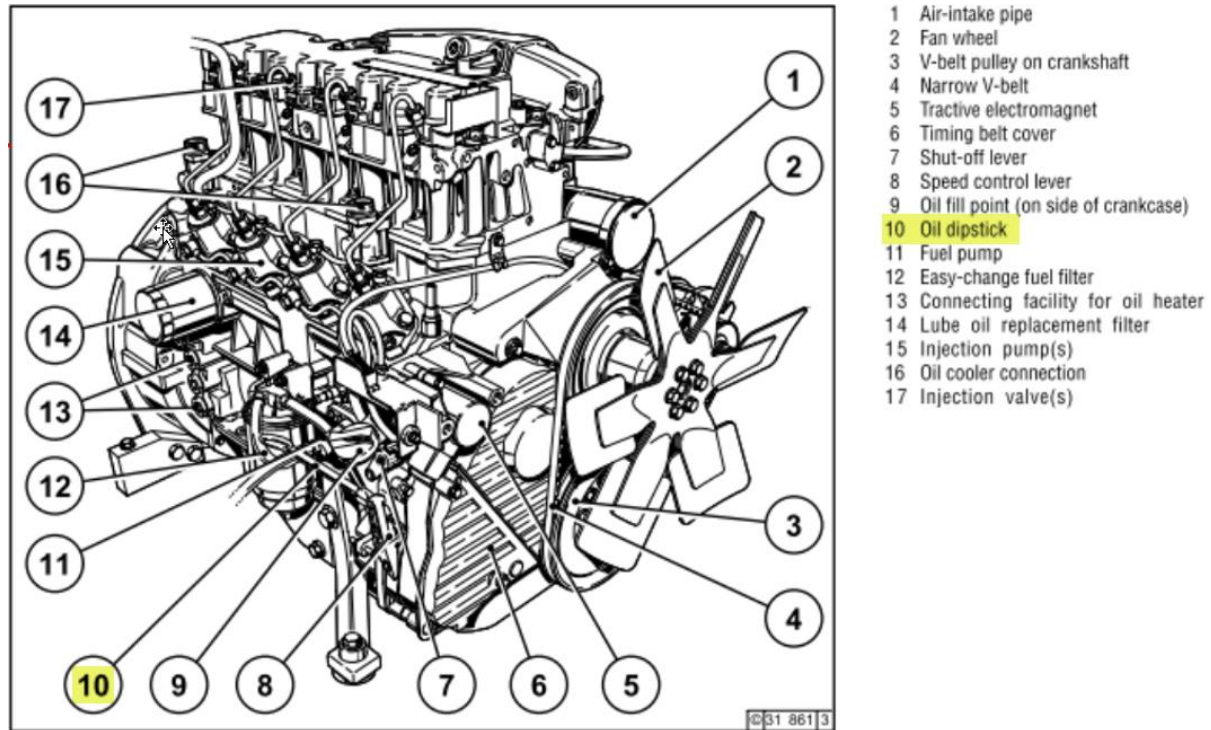


Figure 3.2.3-1 Dipstick Location on Generator (Item #10)

3.3 Monthly T-1 Antenna Lubrication Checklist

Perform the T-1 and Antenna Lubrication procedures called out in Table 3.3-1. T-1 details are derived from Section 8.2 of the O&M Manual for the Model 4.6-Meter Transportable Satcom Ground Terminal (TSGT) T-1, Document #600-1246.

Points referenced in T-1 Antenna Lubrication Checklist in are illustrated below in Figure 3.3-1.

Table 3.3-1 Monthly T-1 Antenna Lubrication Checklist												
Operator:												
Date:												
Item	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Elevation jack screw ^{Note 1}	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
Elevation jack internal bearings ^{Note 1}	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
Azimuth turn table bearings ^{Note 1}	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
Bull gear/Pinion ^{Note 2}	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
Elevation Axis Bearings ^{Note 1}	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
Wing Latches, 2 on each side ^{Note 3} Lubricate when the wings are stowed.	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
Note 1 – Mobilith SHC221 Grease Note 2 – Lubriplate Gear Shield Extra Heavy Spray Note 3 – WD40 or equivalent												

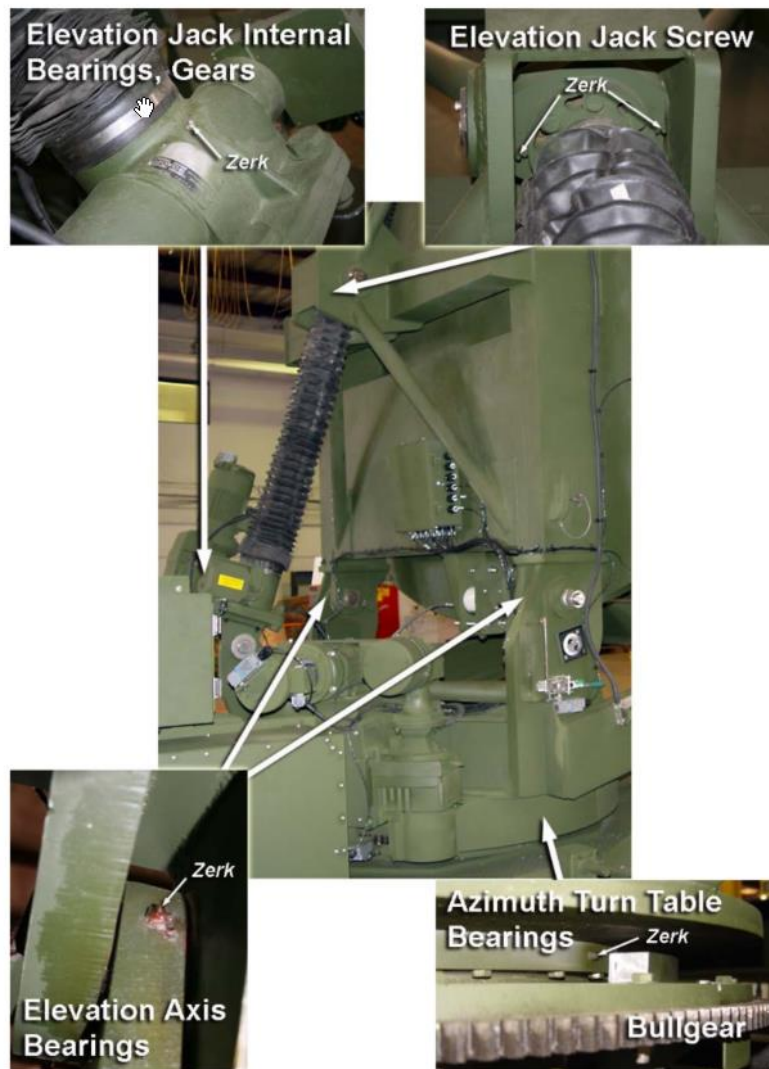


Figure 3.3-1 T-1 Antenna Lubrication Points

4 SUBMIT REPORT

Submit this completed test report to Level 2 personnel at the FSP and to the CSSC.

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Level 2 Maintenance Procedures For NCISG/DACCC/DCMs/M&S COY

TSGT3G DSO

Revision 3

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ABOUT THIS DOCUMENT

This document describes the DSO TSGT preventive maintenance procedures to be performed by a Level 2 Maintainer.

CAUTION ICON

A Caution icon in the manual indicates a hazardous situation that if not avoided, may result in injury. A Caution icon may also be used to indicate other unsafe practices or risks of damage to the TSGT equipment.



POTENTIAL HAZARDS AND SAFETY PRECAUTIONS

While all precautions have been taken by Globecom Systems, Inc to eliminate and identify potential safety hazards in the TSGT System, personnel should exercise caution when installing, operating and servicing the equipment.

Care should be taken to prevent injury from electrical shock, pinch points and RF Radiation. Globecom Systems, Inc is not liable for any damage or injury arising from a technician's failure to follow instructions contained in this document or his or her failure to exercise due care and caution in the installation, operation and service of the TSGT equipment. Globecom Systems, Inc shall not be responsible for injury or damage resulting from improper procedures or from the use of improperly trained or inexperienced personnel performing such tasks.

This document is intended as a general guide for trained and qualified personnel who are aware of the dangers of handling potentially hazardous electrical and electronic circuits. This document is not intended to contain a complete statement of all safety precautions that should be observed by personnel in using this or other electronic equipment.

This system is integrated with high power amplifiers of traveling wave tubes and other high power amplifier technology and is capable of transmitting microwave energy at varying power levels. If transmitting microwave power, Globecom Systems, Inc cautions the end-user to review all applicable local, federal and international regulations and to comply with all such regulations in the operation and maintenance of the integrated system.

The electrical currents and voltages associated with the equipment, whether supplied by Globecom Systems, Inc or others, are dangerous. Personnel must, at all times, observe safety regulations.

SAFETY GUIDELINES

- Do not remove, short-circuit or tamper with interlock switches on access covers, doors, enclosures, gates, panels or shields.
- Keep away from live circuits.

- Know your equipment and do not take risks.
- Always remove all power to the system prior to working on the antenna, the reflector assembly, the reflector backup assembly or the feed assembly.

RF Radiation Lockout Perimeter

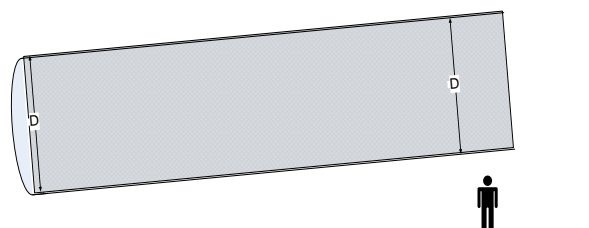
The TSGT antenna radiating surfaces can produce non-ionizing radiation levels more than maximum recommended exposure levels.

To determine the minimum 'safe' distance from the antenna requires calculating the Power Density in the direction of personnel or the object of concern. Minimum information required to calculate the Power Density is the distance to the object, angular offset of the antenna RF bore-sight to the object, and operating power levels. Formulae for calculating Power Density may be found in AECTP 250 Edition 1, Leaflet 258.

A simplified approach to determining safe area boundaries considers a baseline operating condition where only the lower limit of operational elevation angle is required. Baseline operating conditions are established for the T-1 and T-2 configurations as follows:

<u>Configuration</u>	<u>T-1</u>	<u>T-2</u>
Antenna	4.6m	2.4m
Antenna Centreline Height	3.1m	3.3m
HPA Configuration	1:1 Phase Combined	1:1 Phase Combined
Maximum TSGT EIRP	79 dBW	68 dBW
Near Field Length	148m	41m
Distance to Far Field	355m	97m
Max. Power Density Near Field	14 mW/cm ²	19 mW/cm ²
Max. Power Density Far Field	34 mW/cm ²	3 mW/cm ²

The baseline operating configurations result in radiation levels more than maximum recommended exposure levels when in line with the antenna main lobe. The antenna main lobe is a cone shaped projection assumed to have the same dimensions as the antenna main reflector.

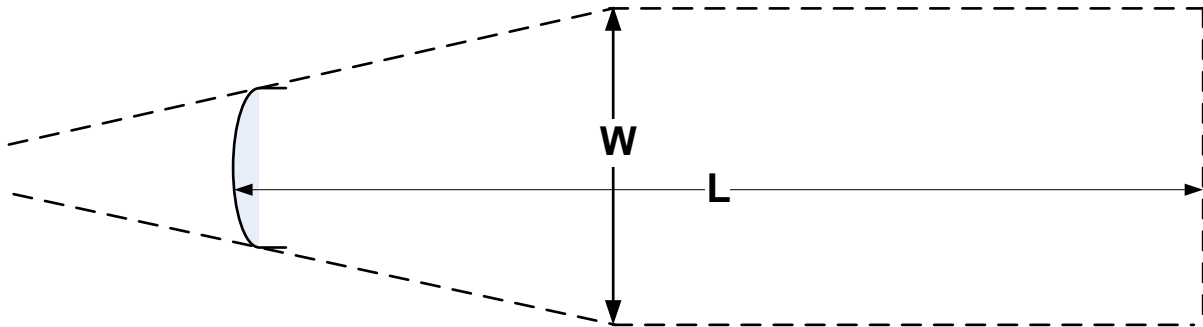


Antenna Main Lobe Projection

Due to the directivity of the radiated power, a zone perimeter can be established by adhering to a few simple rules.

1. Never operate below a 5° antenna elevation angle
2. Always assume maximum transmitter power

3. Always verify the main lobe is not in line with personnel or buildings.
4. Always consider the main lobe to be twice the diameter of the antenna at distances of twice the antenna diameter
5. Always consider the radiation field extends a minimum of 500m
6. Always wear your personal Radiation Monitor when working on or around an operating TSGT



TSGT Radiation Zone Perimeter

Antenna Operational Elevation Angle (°)	<u>T-1</u> Minimum Safe Area Dimension (m)		<u>T-2</u> Minimum Safe Area Dimension (m)	
	Length (L)	Width (W)	Length (L)	Width (W)
5	38	9	14	5
10	19	9	7	5
15	12	9	5	5
20	9	9	4	3
25	7	5	3	3
30	6	5	2	3
35	5	5	2	3
40	4	5	2	3
45	3.5	5	2	3

TSGT Radiation Zone Perimeter Dimensions

The TSGT setup procedure calls for a “Lockout Perimeter” to be established around the terminal to protect personnel from RF radiation.

RF Radiation Monitor

Caution!
CAUTION
!

The Personal RF Radiation Monitor **MUST** be worn at all times while working around a transmitting TSGT.



To configure the Personal RF Radiation Monitor:

1. Configure the alarm for Vibrate, Alternating or Audio.
2. Turn ON the RF Radiation Monitor.

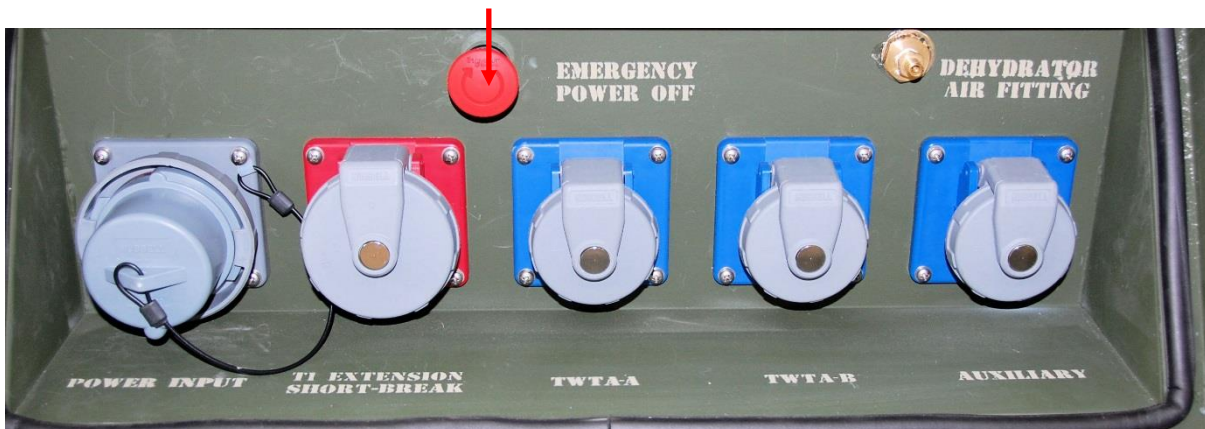
Note: While using the RF Radiation Monitor, an operator should not allow their person to be between the monitor and the Antenna for extended periods of time as this could decrease the effectiveness of the monitor. The RF Radiation Monitor should not be worn under clothing.

Emergency Power Off Controls

The TSGT is equipped with Power Emergency Off (EPO) switches at both the TSGT Container and the T-1 Extension Trailer.

One TSGT Container Emergency Power Off button is located on the Power ETB as illustrated below. Depressing this button cuts off all power to the TSGT terminal and should only be used in the event of an emergency.

TSGT Container Emergency Power Off



TSGT Container Power ETB Emergency Power Off

A second TSGT Container Emergency Power Off button is located the Left Side of the TSGT Container as illustrated below. Depressing this button cuts of all power to the TSGT terminal and should only be used in the event of an emergency.

**TSGT Container Left Side
Emergency Power Off**

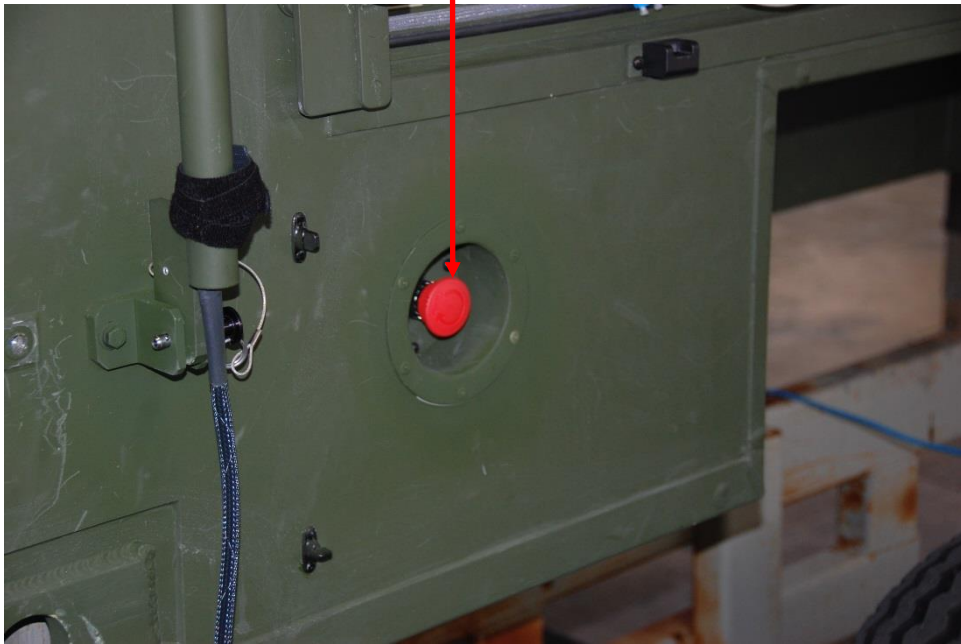


TSGT Container Left Side Emergency Power Off

A third TSGT Container Emergency Power Off button is located the Right Side of the TSGT Container as illustrated below. Depressing this button cuts of all power to the TSGT terminal and should only be used in the event of an emergency.

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**TSGT Container Right Side
Emergency Power Off**



TSGT Container Right Side Emergency Power Off

The T-1 Extension Trailer is equipped with an Emergency Power Off button located at the front of the Trailer Power Panel and illustrated below. Depressing this button cuts of all power to the T-1 Extension Trailer and should only be used in the event of an emergency.

**T-1 Trailer Emergency
Power Off**



T-1 Extension Trailer Power ETB Emergency Power Off Button

Emergency Power Off Protection Switches

The TSGT is equipped with Power Emergency Off (EPO) protection switches at the TSGT Container. If any of these switches are activated, all power to the TSGT is shut off.

- Dirty Power Panel Plate
- Clean Power Panel Plate
- Dirty Power Vault Access (TSGT Container centre aisle)
- Clean Power Vault Access (TSGT Container centre aisle)

Safety Procedures

The following safety procedures are listed to remind those performing any work on the antenna system that safety rules must be observed. Failure to observe safety rules may result in serious injury or death. Always work safely and in accordance with established procedures.

- Always wear the RF Radiation Monitor when working on or near a TSGT terminal.
- Care shall be taken in all operations to safeguard other people as well as property and to comply with all local safety procedures as established by the customer's site representative, as well as local building codes and fire protection standards.
- Never make internal adjustments or perform maintenance or service when alone or fatigued.
- Do not stand in the direct path of the feed system when the system is transmitting!
- Do not work on the feed system when the TSGT is transmitting!

WIND SPEED WARNINGS

T-1 4.6m Antenna

The T-1 4.6m antenna should not be deployed in wind speeds more than **36 km/h**.

The T-1 4.6m antenna can survive in up to **108 km/h** winds at any position. In winds above **108 km/h**, the antenna must be stowed to ensure survival.

If wind speeds are below **36 km/h**, the T-1 4.6m antenna can be stowed per the procedure described in Section 3.4.2.2 of the DSO TSGT O&M manual.

To stow the T-1 4.6m antenna in winds speeds exceeding **36 km/h**, the antenna must be stowed by an alternate method where the antenna wings are not folded and secured before the reflector is lowered to its stowed position, as described in Section 3.4.2.3 of the DSO TSGT O&M manual.

T-2 2.4m Antenna

The T-2 2.4m antenna should not be deployed in wind speeds more than **120 km/h**.

The T-2 2.4m antenna can survive in up to **120 km/h** winds at any position. In winds above **120 km/h**, the antenna must be stowed to ensure survival.

The T-2 4.6m antenna can be stowed per the procedure described on Section 3.4.2 of the DSO TSGT O&M manual.

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1 LEVEL 2 TSGT3G DSO MAINTENANCE

Level 2 TSGT3G DSO Maintenance is the preventive maintenance to be performed monthly by the Level 2 TSGT Field Technician (Maintainer) on a TSGT terminal, whether or not it is currently in operation. It requires that the TSGT be set up and powered-on (if not already in use), then checked thoroughly for correct operation.

Note that a 4 hour downtime must be scheduled in advance for Level 2 Maintenance when a terminal is in operation. Contact TBD to arrange the downtime.

This includes:

- Review of Level 1 Operator TSGT Maintenance Reports
- TSGT Set-up, Power-on, and Initial Assessment/Status Checks
- T-1 and T-2 Antenna Control System Tests
- Check T-1 and T-2 Uplink and Downlink Levels
- Satellite Acquisition and Verification of Communications with CSSC

1.1 TSGT Training Check

In the space below, please indicate the NCI Academy training courses that the Technician(s) performing these procedures has received on the DSO TSGT. Include the name of the Technician(s) and the name and dates of the training course(s).

2 DSO TSGT SAFETY PRECAUTIONS

Before proceeding with this document, read the section on TSGT safety, beginning on page v at the beginning of this document.

Personal RF Radiation Meter

Caution!
CAUTION



The Personal RF Radiation Monitor **MUST** be worn at all times while working around a transmitting TSGT.



To configure the Personal RF Radiation Monitor:

1. Configure the alarm for Vibrate, Alternating or Audio.
2. Turn ON the RF Radiation Monitor.

Note: While using the RF Radiation Monitor, an operator should not allow their person to be between the monitor and the Antenna for extended periods of time as this could decrease the effectiveness of the monitor. The RF Radiation Monitor should not be worn under clothing.

3 LEVEL 2 FIELD TECHNICIAN MAINTENANCE PROCEDURES

3.1 Review of Level 1 Maintenance Records

Level 1 TSGT maintenance procedures are called out in “TSGT Level 1 Maintenance Procedures for NCISG DCMs”, 11137-01610-020. This document suggests that all deficiencies noted during inspection and all checklists filled out be submitted to Level 2 for review.

Review the most recent checklists submitted from Level 1 and address all items noted as needing correction or notify Level 3 if Level 2 personnel cannot make the corrections.

Recent Level 1 Maintenance Records Reviewed: _____check (✓)

3.2 Installation / Visual Inspection

Click the “Select” drop-down menu in the RESULT column to select the result for the step, the choices include:

Menu Choice	Description
OK	Step was performed properly. No issues noted.
NOK	Step was performed and results are not OK. Enter more detail in the REMARKS column.
N/A	Step not applicable. Enter more detail in the REMARKS column.
OTHER	Other. Enter more detail in the REMARKS column.

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PROCEDURE / REPORT OF TEST N° 3.2						
TEST NAME: Installation / Visual Inspection		ELEMENT UNDER TEST: COMPLETE SYSTEM			Serial N° and/or version:	
PROJECT: TSGT- DSO	TEST MATRIX:	TEST CONDUCTOR:	QA ENG:	CUSTOMER:	DATE START:	DATE END:
NUMBER	TEST SEQUENCE			EXPECTED RESULT	RESULT	REMARKS
	T-1 Trailer Checks Before Disconnecting from AMV					
1.	Check Trailer Brakes and operation.			OK	Select	
2.	Check Trailer Lights.			OK	Select	
	T-1 Trailer and Antenna Inspection					
1.	Inspect Trailer for physical damage, punctures, bodywork. Inform metal workshop on action items if applicable			OK	Select	
2.	Check T-1 antenna for wear and tear, corrosion, and painting removal available.			OK	Select	
3.	Check Transport support Z braces and tie-down straps.			OK	Select	
4.	Check Air Suspension valve system and Air cushions operation.			OK	Select	
5.	Check Trailer feet and support pins are in place and working properly.			OK	Select	
6.	Check Antenna reflector EL Transport support bar and switch operation and lubrication.			OK	Select	
7.	Check EL Motor Transport support bar and switch operation.			OK	Select	
8.	Check Feedboom clamps and pads are in good condition.			OK	Select	
9.	Check antenna feed is placing on stow brackets properly.			OK	Select	

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PROCEDURE / REPORT OF TEST N° 3.2						
TEST NAME: Installation / Visual Inspection		ELEMENT UNDER TEST: COMPLETE SYSTEM			Serial N° and/or version:	
PROJECT: TSGT- DSO	TEST MATRIX:	TEST CONDUCTOR:	QA ENG:	CUSTOMER:	DATE START:	DATE END:
NUMBER	TEST SEQUENCE			EXPECTED RESULT	RESULT	REMARKS
10.	Check antenna Stow Bracket is in good condition pins and joints are maintained, safe and lubricated properly. Switch is functional and locking mechanism working properly. Check in the Limit Switch Logic Box that the STOW BRACKET LED is OFF when switch actuated.			OK	Select	
11.	Check Antenna Stow bracket, Velocity Switch, pads and spring are in good condition and working properly.			OK	Select Select	
12.	Check Antenna Feed Waveguide Assembly connections are in good condition, tight and free of corrosion.			OK	Select	
	T-1 Trailer Positioning					
1.	Position Trailer.			OK	Select	
2.	Install support feet.			OK	Select	
3.	Level Trailer.			OK	Select	
4.	Inspect power and signal ETB.			OK	Select	
5.	Install and inspect grounding and lightning rod connectivity.			OK	Select	
	T-1 Trailer Prepare for Deployment					
1.	Deploy outriggers and level Trailer			OK	Select	
2.	Remove AZ and EL stow bars			OK	Select	
3.	Unclamp feedboom			OK	Select	

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PROCEDURE / REPORT OF TEST Nº 3.2						
TEST NAME: Installation / Visual Inspection		ELEMENT UNDER TEST: COMPLETE SYSTEM			Serial Nº and/or version:	
PROJECT: TSGT- DSO	TEST MATRIX:	TEST CONDUCTOR:	QA ENG:	CUSTOMER:	DATE START:	DATE END:
NUMBER	TEST SEQUENCE			EXPECTED RESULT	RESULT	REMARKS
4	Remove the stow bracket safety lanyards			OK	Select	
5.	Remove X/Z braces			OK	Select	
	T-2 Container Positioning					
1.	Position Container.			OK	Select	
2.	Remove top cover.			OK	Select	
3.	Unclamp feedboom.			OK	Select	
4.	Unlock all doors.			OK	Select	
5.	Remove and inspect lifting jacks.			OK	Select	
6.	Install lifting jacks and level Container.			OK	Select	
7.	Install grounding and inspect grounding and lightning rod connectivity.			OK	Select	
	T-2 Container Prepare for Deployment					
1.	Inspect power and signal ETB and T-1 power and signal wiring harnesses for damaged/loose/incomplete connectors, dust caps, water tightness etc			OK	Select	
2.	Connect T-2 power and signal wiring harness to the Container and the Trailer.			OK	Select	
3.	Install and connect the weather mast assembly on the Container.			OK	Select	

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PROCEDURE / REPORT OF TEST N° 3.2						
TEST NAME: Installation / Visual Inspection		ELEMENT UNDER TEST: COMPLETE SYSTEM			Serial N° and/or version:	
PROJECT: TSGT- DSO	TEST MATRIX:	TEST CONDUCTOR:	QA ENG:	CUSTOMER:	DATE START:	DATE END:
NUMBER	TEST SEQUENCE			EXPECTED RESULT	RESULT	REMARKS
4.	Inspect Container for physical damage, punctures, doors, handles, bodywork, weather seals, RF shielding. Inform metal workshop on action items if applicable			OK	Select	
5.	Check Fibre Patch Panel and fibre connectors			OK	Select	

3.3 System Power-On and Initial Assessment

PROCEDURE / REPORT OF TEST Nº 3.3						
TEST NAME: Power-On and Initial Assessment		ELEMENT UNDER TEST: COMPLETE SYSTEM			Serial Nº and/or version:	
PROJECT: TSGT- DSO	TEST MATRIX:	TEST CONDUCTOR:	QA ENG:	CUSTOMER:	DATE START:	DATE END:
NUMBER	TEST SEQUENCE			EXPECTED RESULT	RESULT	REMARKS
	Pre-Power on Checks					
1.	Confirm all EPO Switches are not engaged: <ul style="list-style-type: none"> • At Container Power ETB • At left side of Container • At right side of Container • At Trailer ETB 			OK	Select Select Select Select	
2.	Confirm all CBs located in the Clean and Dirty Power Distribution Panels are in the OFF position.			OFF	Select	
3.	Confirm all Inverter Module CBs are ON.			ON	Select	
4.	Confirm all CBs on the Summing and Distribution Assembly are ON			ON	Select	
	System Initial Power-On Checks					
1.	Connect MAIN POWER from the PGS or Commercial Power socket to the Main Power Input on the Power ETB.			OK	Select	
2.	Close CB25 and CB32 at the Clean Power Distribution Panel.			OK	Select	
3.	Close CB1 at the Dirty Power Distribution Panel. Verify that that the voltage displayed at the AC Power Meter located in the Dirty Power Distribution Panel is within the range 360 – 440VAC (400VAC ± 10%)			400VAC ±10%	Select	

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PROCEDURE / REPORT OF TEST N° 3.3						
TEST NAME: Power-On and Initial Assessment		ELEMENT UNDER TEST: COMPLETE SYSTEM			Serial N° and/or version:	
PROJECT: TSGT-DSO	TEST MATRIX:	TEST CONDUCTOR:	QA ENG:	CUSTOMER:	DATE START:	DATE END:
NUMBER	TEST SEQUENCE			EXPECTED RESULT	RESULT	REMARKS
4.	Record the readings at the AC Power Meter			3Phase Voltage: _____ V _{AVG} 3Phase Current: _____ I _{AVG} 3Phase Power: _____ kW 3Phase Frequency: _____ Hz.		
	EPO Checks					
1.	Engage the EPO Switch located on the PETB and confirm the following: <ul style="list-style-type: none"> • CB1 at Dirty Power Distribution Panel trips • 48VDC EPO Switch in LVDS assembly at rear of UPS opens 			OK OK	Select Select	
2.	Disengage the EPO Switch at the Power ETB and restore CB1 to apply power to system.			OK	Select	
3.	Engage the EPO Switch located on the Container left side and confirm the following: <ul style="list-style-type: none"> • CB1 at Dirty Power Distribution Panel trips • 48VDC EPO Switch in LVDS assembly at rear of UPS opens 			OK OK	Select Select	
4.	Disengage the EPO Switch on the left side of the Container and restore CB1 to apply power to system.			OK	Select	

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PROCEDURE / REPORT OF TEST N° 3.3						
TEST NAME: Power-On and Initial Assessment		ELEMENT UNDER TEST: COMPLETE SYSTEM			Serial N° and/or version:	
PROJECT: TSGT- DSO	TEST MATRIX:	TEST CONDUCTOR:	QA ENG:	CUSTOMER:	DATE START:	DATE END:
NUMBER	TEST SEQUENCE			EXPECTED RESULT	RESULT	REMARKS
5.	Engage the EPO Switch located on the Container right side and confirm the following: <ul style="list-style-type: none"> • CB1 at Dirty Power Distribution Panel trips • 48VDC EPO Switch in LVDS assembly at rear of UPS opens 			OK OK	Select Select	
6.	Disengage the EPO Switch on the right side of the Container and restore CB1 to apply power to system.			OK	Select	
7.	Close CB9 on the Dirty Power Distribution Panel to apply mains power to the Trailer.			OK	Select	
8.	Engage the EPO Switch on the Trailer.			OK	Select	
9.	Confirm that CB1 at the Trailer trips			OK	Select	
10.	Disengage the EPO Switch at the Trailer and close CB1.			OK	Select	
	Power-Up and Check the ECUs					
1.	Power-up ECU A, set it to AUTO mode and set its temperature to a setting that will trigger heating (above ambient temperature by at least 4 degrees).			OK	Select	
2.	Confirm that ECU A starts heating and is functioning properly.			OK	Select	
3.	Set ECU A temperature to a setting that will trigger cooling (below ambient temperature by at least 4 degrees).			OK	Select	
4.	Confirm that ECU A starts cooling and is functioning properly.			OK	Select	
5.	Set ECU A temperature to +25 degrees.			OK	Select	
6.	Power-down ECU A.			OK	Select	

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PROCEDURE / REPORT OF TEST N° 3.3						
TEST NAME: Power-On and Initial Assessment		ELEMENT UNDER TEST: COMPLETE SYSTEM			Serial N° and/or version:	
PROJECT: TSGT- DSO	TEST MATRIX:	TEST CONDUCTOR:	QA ENG:	CUSTOMER:	DATE START:	DATE END:
NUMBER	TEST SEQUENCE			EXPECTED RESULT	RESULT	REMARKS
7.	Power-up ECU B, set it to AUTO mode and set its temperature to a setting that will trigger heating (above ambient temperature by at least 4 degrees).			OK	Select	
8.	Confirm that ECU B starts heating and is functioning properly.			OK	Select	
9.	Set ECU B temperature to a setting that will trigger cooling (below ambient temperature by at least 4 degrees).			OK	Select	
10.	Confirm that ECU B starts cooling and is functioning properly.			OK	Select	
11.	Set ECU B temperature to +25 degrees.			OK	Select	
12.	Power-down ECU B.			OK	Select	
13.	Power-up ECU C, set it to AUTO mode and set its temperature to a setting that will trigger heating (above ambient temperature by at least 4 degrees).			OK	Select	
14.	Confirm that ECU C starts heating and is functioning properly.			OK	Select	
15.	Set ECU C temperature to a setting that will trigger cooling (below ambient temperature by at least 4 degrees).			OK	Select	
16.	Confirm that ECU C starts cooling and is functioning properly.			OK	Select	
17.	Set ECU C temperature to +25 degrees.			OK	Select	
18.	Power-down ECU C.			OK	Select	
19.	Power-up any two ECUs.			OK	Select	

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PROCEDURE / REPORT OF TEST N° 3.3						
TEST NAME: Power-On and Initial Assessment		ELEMENT UNDER TEST: COMPLETE SYSTEM			Serial N° and/or version:	
PROJECT: TSGT- DSO	TEST MATRIX:	TEST CONDUCTOR:	QA ENG:	CUSTOMER:	DATE START:	DATE END:
NUMBER	TEST SEQUENCE			EXPECTED RESULT	RESULT	REMARKS
	Power-Up and Check the UPS					
1.	At the Clean Power Distribution Panel, switch ON rectifiers 1-7 (at CB2-CB8) one-by-one while monitoring the output voltage at the Rectifier Controller (Faulty rectifiers tend to “pull down” the output voltage).			54.4 VDC	Voltage: _____VDC	
2.	Confirm Inverters are powered-on and are not displaying any faults.			OK	Select	
3.	With a Maintenance laptop with PowCom installed, check if UPS is configured as shown in the PowCom screen captures below. Correct the settings as necessary.			OK	Select	

PROCEDURE / REPORT OF TEST N° 3.3						
TEST NAME: Power-On and Initial Assessment		ELEMENT UNDER TEST: COMPLETE SYSTEM			Serial N° and/or version:	
PROJECT: TSGT-DSO	TEST MATRIX:	TEST CONDUCTOR:	QA ENG:	CUSTOMER:	DATE START:	DATE END:
NUMBER	TEST SEQUENCE			EXPECTED RESULT	RESULT	REMARKS
<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> </div> <div style="width: 48%;"> </div> </div>						

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PROCEDURE / REPORT OF TEST N° 3.3						
TEST NAME: Power-On and Initial Assessment		ELEMENT UNDER TEST: COMPLETE SYSTEM			Serial N° and/or version:	
PROJECT: TSGT- DSO	TEST MATRIX:	TEST CONDUCTOR:	QA ENG:	CUSTOMER:	DATE START:	DATE END:
NUMBER	TEST SEQUENCE			EXPECTED RESULT	RESULT	REMARKS
	Power-Up Equipment Racks					
1.	Turn on Clean Power Distribution Panel circuit breakers to apply power to the equipment racks. Verify that power has been applied to all racks. <ul style="list-style-type: none"> • CB15 (Right R1/R2) • CB16 (Right R3/R4) • CB17 (Left R5/R6) • CB20 (Right R1) • CB21 (Right R2/R3) • CB22 (Right (R4) • CB23 (Left R5) • CB24 (Left R6/R7) 			OK	Select	
2.	Power ON all independent units by switching them ON and check all having initial power ON status.					
3.	Boot T-1 ACU for T-1 Operation			Boot sequence for T-1	Select	
4.	Boot T-2 ACU for T-2 Operation			Boot sequence for T-2	Select	
5.	T-2 PDU			Initial power up	Select	
6.	EMS SERVER COMPUTER LMCa			EMS GUI operation Log GUI Revision. REV.2.1.12	Select Select	

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PROCEDURE / REPORT OF TEST N° 3.3						
TEST NAME: Power-On and Initial Assessment		ELEMENT UNDER TEST: COMPLETE SYSTEM			Serial N° and/or version:	
PROJECT: TSGT- DSO	TEST MATRIX:	TEST CONDUCTOR:	QA ENG:	CUSTOMER:	DATE START:	DATE END:
NUMBER	TEST SEQUENCE			EXPECTED RESULT	RESULT	REMARKS
7.	EMSe 1 MODEM			Booting Modems without any alarm	Select	
8.	EMSe 2 MODEM			Booting Modems without any alarm	Select	
9.	EMSe 3 MODEM			Booting Modems without any alarm	Select	
10.	EMSe 4 MODEM			Booting Modems without any alarm	Select	
11.	ASNMC LCAm SERVER COMPUTER			Windows Win7 prof. operating system starts ASNMC GUI Interface starts. ASNMC VER.1.2.1 iDirect GUI access	Select Select Select	
12.	ASNMC DWS CLIENT COMPUTER			Windows Win7 prof. operating system starts ASNMC GUI Interface starts. ASNMC VER.1.2.1 iDirect GUI access	Select Select Select	
13.	ASNMC VPN ROUTER&SWITCH			Initial power up	Select	
14.	ASNMC NU PHONE			Initial Power up	Select	
15.	ASNMC NR PHONE			Initial Power up	Select	
16.	ASNMC SWITCH			Initial Power up	Select	

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PROCEDURE / REPORT OF TEST N° 3.3						
TEST NAME: Power-On and Initial Assessment		ELEMENT UNDER TEST: COMPLETE SYSTEM			Serial N° and/or version:	
PROJECT: TSGT- DSO	TEST MATRIX:	TEST CONDUCTOR:	QA ENG:	CUSTOMER:	DATE START:	DATE END:
NUMBER	TEST SEQUENCE			EXPECTED RESULT	RESULT	REMARKS
17.	EBEM MODEM#1			Initial power up Check FW version Rev. 02.03.02	Select	
18.	EBEM MODEM#2			Initial Power up Check FW version Rev. 02.03.02	Select	
19.	EBEM MODEM#3			Initial Power up Check FW version Rev. 02.03.02	Select	
20.	EBEM MODEM#4			Initial Power up Check FW version Rev. 02.03.02	Select	
21.	EBEM MODEM#5			Initial Power up Check FW version Rev. 02.03.02	Select	
22.	LINE AMPLIFIERS			Initial Power up	Select	
23.	NETCLOCK TFRS #1			Initial Power up	Select	
24.	NETCLOCK TFRS #2			Initial Power up	Select	
25.	SPECTRA TFRS DISTRIBUTION AMPLIFIER1			Initial Power up	Select	
26.	SPECTRA TFRS DISTRIBUTION AMPLIFIER2			Initial Power up	Select	
27.	GPS ANTENNA			Initial Power up	Select	

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PROCEDURE / REPORT OF TEST N° 3.3						
TEST NAME: Power-On and Initial Assessment		ELEMENT UNDER TEST: COMPLETE SYSTEM			Serial N° and/or version:	
PROJECT: TSGT- DSO	TEST MATRIX:	TEST CONDUCTOR:	QA ENG:	CUSTOMER:	DATE START:	DATE END:
NUMBER	TEST SEQUENCE			EXPECTED RESULT	RESULT	REMARKS
28.	(On DAC 1-4) DXC #1 & FO-MICE EQUIPMENT			Initial Power up	Select	
29.	(On DAC 1-4) DXC #2 & FO-MICE EQUIPMENT			Initial Power up	Select	
30.	(On DCIS & DCAOC) FDMA ROUTER #1			Initial Power up	Select	
31.	(On DCIS & DCAOC) FDMA Switch #1			Initial Power up	Select	
32.	(On DCIS & DCAOC) EMS ROUTER #2			Initial Power up	Select	
33.	(On DCIS & DCAOC) EMS Switch #2			Initial Power up	Select	
34.	ORION SYSTEM MANAGEMNET SUBSYSTEM AMP#1 16 PORT			Initial Power up	Select	
35.	ORIONSYSTEM MANAGEMNET SUBSYSTEM DELL SWITCH			Initial Power up	Select	
36.	BUC A (BLOCK UP CONVERTER) for T-1			Initial Power up	Select	
37.	BUC SWITCHING UNIT for T-1			Initial Power up	Select	
38.	BUC B (BLOCK UP CONVERTER) for T-1			Initial Power up	Select	
39.	BUC A (BLOCK UP CONVERTER) for T-2			Initial Power up	Select	
40.	BUC SWITCHING UNIT for T-2			Initial Power up	Select	

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PROCEDURE / REPORT OF TEST N° 3.3						
TEST NAME: Power-On and Initial Assessment		ELEMENT UNDER TEST: COMPLETE SYSTEM			Serial N° and/or version:	
PROJECT: TSGT- DSO	TEST MATRIX:	TEST CONDUCTOR:	QA ENG:	CUSTOMER:	DATE START:	DATE END:
NUMBER	TEST SEQUENCE			EXPECTED RESULT	RESULT	REMARKS
41.	BUC B (BLOCK UP CONVERTER) for T-2			Initial Power up	Select	
42.	BDC A (BOCK DOWN CONVERTER) for T-1			Initial Power up	Select	
43.	BDC SWITCHING UNIT for T-1			Initial Power up	Select	
44.	BDC B (BOCK DOWN CONVERTER) for T-1			Initial Power up	Select	
45.	BDC A (BOCK DOWN CONVERTER) for T-2			Initial Power up	Select	
46.	BDC SWITCHING UNIT for T-2			Initial Power up	Select	
47.	BDC B (BOCK DOWN CONVERTER) for T-2			Initial Power up	Select	
48.	UPLINK EQUALIZER T-1			Initial Power up	Select	
49.	UPLINK EQUALIZER T-2			Initial Power up	Select	
50.	SSPA SUBSYSTEM #			Initial Power up	Select	
51.	SSPA #A			Initial Power up	Select	
52.	SSPA #B			Initial Power up	Select	
53.	LNA SUBSYSTEM			Initial Power up	Select	
54.	LNA #A			Initial Power up	Select	
55.	LNA #B			Initial Power up	Select	
56.	ANTI_ICING SYSTEM			Initial Power up	Select	
57.	DEHYDRATOR Check duty cycle and operation of Dehydrator on ASNMC			<10%	_____ %	

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PROCEDURE / REPORT OF TEST N° 3.3						
TEST NAME: Power-On and Initial Assessment		ELEMENT UNDER TEST: COMPLETE SYSTEM			Serial N° and/or version:	
PROJECT: TSGT- DSO	TEST MATRIX:	TEST CONDUCTOR:	QA ENG:	CUSTOMER:	DATE START:	DATE END:
NUMBER	TEST SEQUENCE			EXPECTED RESULT	RESULT	REMARKS
58.	CONTAINER AND BATTERY TEMP Check Container temperature operation on ASNMC.				Container: ____ °C Battery: ____ °C	
59.	Confirm that the weather information at the ASNMC is accurate.			Correct weather	Select	
60.	MISC. ALARMS T-2			Initial Power up	Select	
61.	PGS (POWER GENERATION SYSTEM) SUBSYSTEM			Initial Power up	Select	
62.	T-1 PDU			Initial Power up	Select	
63.	T-1 PMU			Initial Power up	Select	
64.	T-1 HPA SUBSYSTEM			Initial Power up	Select	
65.	HPA #A			Initial Power up	Select	
66.	HPA #B			Initial Power up	Select	
67.	T-1 LNA SUBSYSTEM			Initial Power up	Select	
68.	LNA #A			Initial Power up	Select	
69.	LNA #B			Initial Power up	Select	

3.4 T-2 Antenna Control System Tests

PROCEDURE / REPORT OF TEST Nº 3.4						
TEST NAME: T-2 Antenna and Antenna Control System		ELEMENT UNDER TEST: T-2 Antenna Subsystem			Serial Nº and/or version:	
		TEST CONDUCTOR:	QA ENG:	CUSTOMER:	DATE START:	DATE END:
STEP	TEST SEQUENCE			EXPECTED RESULT	RESULT	REMARKS
	<i>Note: Reference 600-1219 Rev B 2_4m O-M MANUAL and NCIA CSSC EMB TSS PMI procedures for questions on configuring TSGT for antenna operation.</i>					
	T-2 Antenna Inspection and Maintenance					
1.	Check PDU for label indicating that it has been ruggedized.			OK	Select	
2.	Check antenna Feed Membrane and Air leakage			Less than 10% Duty Cycle on dehydrator	Select	
3.	Inspect Azimuth and EI gear boxes for leakage.			OK	Select	
4.	Check Elevation Hand Crank operation is smooth and quiet.			OK	Select	
5.	Check Azimuth Hand Crank operation is smooth and quiet.			OK	Select	
6.	Check Elevation pivot bearings.			OK	Select	
7.	Check Azimuth bearing operation.			OK	Select	

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PROCEDURE / REPORT OF TEST N° 3.4						
TEST NAME: T-2 Antenna and Antenna Control System		ELEMENT UNDER TEST: T-2 Antenna Subsystem			Serial N° and/or version:	
		TEST CONDUCTOR:	QA ENG:	CUSTOMER:	DATE START:	DATE END:
STEP	TEST SEQUENCE			EXPECTED RESULT	RESULT	REMARKS
8.	Check: <ul style="list-style-type: none"> • All visible hardware • Cable harness • Feed boom struts • Feed pallet struts • Painting, cracks and rusting • Waveguide connections and support brackets • Antenna surface 			OK	Select Select Select Select Select Select	
9.	Check ferrous metal surfaces and apply recommended rust preventive re-coating, as necessary. Clean the dust and excessive oil when done.			OK	Select	
10.	Apply De-icing system and blister check procedure. Notes: <ol style="list-style-type: none"> 1. Only one SSPA (T-2) and one TWTA Beam (T-1) can be turned ON when antenna Anti-Icing is enabled. 2. Only one ECU can be in operation when Antenna Anti-Icing is enabled. 			OK	Select	
	T-2 ACU Deploy, Stow and Jog					
1.	DEPLOY the antenna and verify there are no fault messages present. Verify that the antenna elevation angle is 10 degrees.			OK	Select	
2.	Activate STOW Mode and check antenna stowing. And Check and record antenna STOW command.			Elevation Stow command -77	Command: _____	

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PROCEDURE / REPORT OF TEST N° 3.4						
TEST NAME: T-2 Antenna and Antenna Control System		ELEMENT UNDER TEST: T-2 Antenna Subsystem			Serial N° and/or version:	
		TEST CONDUCTOR:	QA ENG:	CUSTOMER:	DATE START:	DATE END:
STEP	TEST SEQUENCE	EXPECTED RESULT	RESULT	REMARKS		
3.	Check antenna is centred on AZ to 0 degree and fitting into the frame, Check AZ STOW Centre switch operation.	Check AZ centre Offset =0 Check Centre Switch	Offset=0.0 Select			
4.	Check antenna, slowing when antenna reaches 5-7cm to final stow position. If not, notify Level 3 personnel.		Select			
5.	Check Antenna STOWED messages and actual STOW position	Elevation Stow actual value Stowed message	Actual Value: Select			
6.	DEPLOY the antenna again and check Manual ACU / Antenna JOG Commands.	OK	Select			
7.	Check Manual AZ Hand Cranking	OK	Select			
8.	Check Manual EL Hand Cranking	OK	Select			
	T-2 ACU Emergency Stop Check					
1.	Verify the Emergency Stop on T-2 ACU stops antenna movement.	OK	Select			
2.	Verify ACU Emergency Stop activation reports to ASNMC	OK	Select			
3.	Verify resetting the ACU Emergency Stop restores antenna drive capability.	OK	Select			

PROCEDURE / REPORT OF TEST Nº 3.4						
TEST NAME: T-2 Antenna and Antenna Control System		ELEMENT UNDER TEST: T-2 Antenna Subsystem			Serial Nº and/or version:	
		TEST CONDUCTOR:	QA ENG:	CUSTOMER:	DATE START:	DATE END:
STEP	TEST SEQUENCE			EXPECTED RESULT	RESULT	REMARKS
	T-2 Antenna Travel Limits					
<p>This figure summarizes the azimuth and elevation angle settings for the T-2 antenna and can be used a reference for the procedures in this section.</p> <div style="text-align: center;"> </div>						

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PROCEDURE / REPORT OF TEST N° 3.4						
TEST NAME: T-2 Antenna and Antenna Control System		ELEMENT UNDER TEST: T-2 Antenna Subsystem			Serial N° and/or version:	
		TEST CONDUCTOR:	QA ENG:	CUSTOMER:	DATE START:	DATE END:
STEP	TEST SEQUENCE	EXPECTED RESULT	RESULT	REMARKS		
1.	Connect the PMU Handheld Maintenance Unit to the T-2 PDU.	OK	Select			
2.	Manually move the antenna to be positioned over the Container centre line and record the azimuth and elevation angles.	OK	AZ: _____ EL: _____			
3.	Calculate the approximate setting for the azimuth CW and CCW Pre-Limits. They are set at the factory to be approximately ± 150 degrees from the centre line setting. <ul style="list-style-type: none"> CW limit = Centre line azimuth +150 degrees. CCW limit = Centre line azimuth -150 degrees. 	OK	CW Pre-Limit: _____ CCW Pre-Limit: _____			
4.	Drive the antenna CW to a valid point, record the azimuth angle and verify that there are no alarms present in the ACU or ASNMC.	OK	AZ Angle: _____ Select			
5.	Drive the antenna in the CW direction. The ACU will alarm at the soft limit. Record the azimuth angle of the soft limit, verify the soft limit alarm is reported on the ACU and ASNMC.	OK	Soft CW Limit: _____ Select			
6.	Continue driving the antenna in the CW direction. The antenna will stop near the Az CW Pre-Limit, calculated in step 3. Record the azimuth angle at the CW Pre-Limit and verify the Pre-Limit is reported on the ACU and ASNMC.	OK	CW Pre-Limit: _____ Select			
7.	Drive the antenna CCW to a valid point, record the azimuth angle and verify that there are no alarms present in the ACU or ASNMC.	OK	AZ Angle: _____ Select			
8.	Drive the antenna in the CCW direction. The ACU will alarm at the soft limit. Record the azimuth angle of the soft limit, verify the soft limit alarm is reported on the ACU and ASNMC.	OK	Soft CCW Limit: _____ Select			

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PROCEDURE / REPORT OF TEST N° 3.4						
TEST NAME: T-2 Antenna and Antenna Control System		ELEMENT UNDER TEST: T-2 Antenna Subsystem			Serial N° and/or version:	
		TEST CONDUCTOR:	QA ENG:	CUSTOMER:	DATE START:	DATE END:
STEP	TEST SEQUENCE	EXPECTED RESULT	RESULT	REMARKS		
9.	Continue driving the antenna in the CCW direction. The antenna will stop near the Az CCW Pre-Limit, calculated in step 3. Record the azimuth angle at the CCW Pre-Limit and verify the Pre-Limit is reported on the ACU and ASNMC.	OK	CCW Pre-Limit: _____ Select			
10.	Drive the antenna in the CW direction back to the centre.	OK	Select			
11.	Drive the antenna UP to a valid point, record the elevation angle and verify that there are no alarms present in the ACU or ASNMC.	OK	EL Angle: _____ Select			
12.	Drive the antenna in the UP direction. The ACU will alarm at the soft limit. Record the elevation angle of the soft limit, verify the soft limit alarm is reported on the ACU and ASNMC.	OK	Soft UP Limit: _____ Select			
13.	Continue driving the antenna in the UP direction. The antenna will stop near the UP Pre-Limit, set at approximately 88 degrees. Record the elevation angle at the UP Pre-Limit and verify the Pre-Limit is reported on the ACU and ASNMC.	OK	UP Pre-Limit: _____ Select			
14.	Drive the antenna DOWN to a valid point off centre, record the elevation angle and verify that there are no alarms present in the ACU or ASNMC.	OK	EL Angle: _____ Select			
15.	Drive the antenna in the DOWN direction. The ACU will alarm at the soft limit. Record the elevation angle of the soft limit, verify the soft limit alarm is reported on the ACU and ASNMC.	OK	Soft DN Limit: _____ Select			
16.	Continue driving the antenna in the DOWN direction. The antenna will stop near DOWN Pre-Limit, set at approximately -2 degrees. Record the elevation angle at the DOWN Pre-Limit and verify the Pre-Limit is reported on the ACU and ASNMC.	OK	DN Pre-Limit: _____ Select			

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PROCEDURE / REPORT OF TEST N° 3.4						
TEST NAME: T-2 Antenna and Antenna Control System		ELEMENT UNDER TEST: T-2 Antenna Subsystem			Serial N° and/or version:	
		TEST CONDUCTOR:	QA ENG:	CUSTOMER:	DATE START:	DATE END:
STEP	TEST SEQUENCE	EXPECTED RESULT	RESULT	REMARKS		
	T-2 Antenna Safe-to-Transmit Limits					
1.	Point the antenna to clear sky and record the azimuth and elevation angles. This will be the antenna "set" position.	OK	AZ: _____ EL: _____			
2.	<u>Set up Modem and Spectrum Analyzer:</u> 1. Confirm all modems are OFF. 2. At the L-Band Uplink Patch Panel, connect the output of EBEM #1 to T-2 antenna. 3. Set EBEM #1 transmit to 1200 MHz CW at -20 dBm. 4. Connect a Spectrum Analyzer on feed coupler DC1 directly or at the RF Monitor/Test Panel port 25 to view transmitted carrier at RF.	OK	Select Select Select Select			
3	Configure the T-2 for normal operating conditions with the SSPAs in "Combined Offline" mode and operating at 10 dB output back-off.	OK	Select			
4.	At the T-2 ACU, set the safe-to-transmit angular limits to: <ul style="list-style-type: none"> • Azimuth CW: +5 degrees from antenna set position • Azimuth CCW: -5 degrees from antenna set position • Elevation Up: +5 degrees from antenna set position • Elevation Down: -5 degrees from antenna set position 	OK	Select			
5.	Drive the antenna in azimuth CW +3 degrees from the set position. Verify the SSPAs are not inhibited (mute).	OK	Select			
6.	Drive the antenna in azimuth CW another +3 degrees (-6 degrees from the set position). Verify the SSPAs are inhibited (RF mute On, no carrier at DC1 and the ACU indicates alarms).	OK	Select			

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PROCEDURE / REPORT OF TEST N° 3.4						
TEST NAME: T-2 Antenna and Antenna Control System		ELEMENT UNDER TEST: T-2 Antenna Subsystem			Serial N° and/or version:	
		TEST CONDUCTOR:	QA ENG:	CUSTOMER:	DATE START:	DATE END:
STEP	TEST SEQUENCE			EXPECTED RESULT	RESULT	REMARKS
7.	Drive the azimuth CCW -6 degrees. Clear the ACU alarm and verify the SSPAs transmit.			OK	Select	
8.	Drive the antenna in azimuth CCW -3 degrees. Verify the SSPAs are not inhibited.			OK	Select	
9.	Drive the antenna in azimuth CCW another -3 degrees (-6 degrees from the antenna set position). Verify the SSPAs are inhibited (RF mute On, no carrier at DC1 and the ACU indicates alarms).			OK	Select	
10.	Drive the azimuth CW +6 degrees. Clear the ACU alarm and verify the SSPAs transmit.			OK	Select	
11.	Drive the antenna elevation up +3 degrees. Verify the SSPAs are not inhibited.			OK	Select	
12.	Drive the antenna elevation up another +3 degrees (+6 degrees from the antenna set position). Verify the SSPAs are inhibited (RF mute On, no carrier at DC1 and the ACU indicates alarms).			OK	Select	
13.	Drive the antenna elevation down -6 degrees. Clear the ACU alarm and verify the SSPAs transmit.			OK	Select	
14.	Drive the antenna elevation down -3 degrees. Verify the SSPAs are not inhibited.			OK	Select	
15.	Drive the antenna elevation down another -3 degrees (-6 degrees from the antenna set position). Verify the SSPAs are inhibited (RF mute On, no carrier at DC1 and the ACU indicates alarms).			OK	Select	
16.	Drive the antenna elevation up +6 degrees (back to the antenna set position). Clear the ACU alarm and verify the SSPAs transmit.			OK	Select	

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PROCEDURE / REPORT OF TEST N° 3.4						
TEST NAME: T-2 Antenna and Antenna Control System		ELEMENT UNDER TEST: T-2 Antenna Subsystem			Serial N° and/or version:	
	TEST CONDUCTOR:	QA ENG:	CUSTOMER:	DATE START:	DATE END:	
STEP	TEST SEQUENCE		EXPECTED RESULT	RESULT	REMARKS	
	T-2 Satellite Acquisition					
1.	Verify that all the required preconditions are met: <ul style="list-style-type: none"> • GPS quality minimum of 8 • Compass heading available • Inclinometers feedback available (Tilt/Cross) • Feedboom clamps released 		OK	Select Select Select Select		
2.	Check Satellite Preset list is configured for the 6 satellites as shown in the table below.		OK	Select		

Satellite Name	Satellite Inclination	Track mode	S/S Antenna pointed	Input signal level	Beacon Settings
GOVSAT	0	optrack	Select		Offset -45/low sig thr -80 /Bw:4Khz
SKY 5B	0	optrack	Select		Offset -45/low sig thr -80 /Bw:4Khz
SKY 5C	0	optrack	Select		Offset -45/low sig thr -80 /Bw:4Khz
SKY 5D	0	optrack	Select		Offset -45/low sig thr -80 /Bw:4Khz
SICRAL	0	optrack	Select		Offset -45/low sig thr -80 /Bw:4Khz
SYRACUSE3A	0	optrack	Select		Offset -45/low sig thr -80 /Bw:280Khz
WGS	0	optrack	Select		Offset -45/low sig thr -80 /Bw:280Khz

3.5 T-1 Antenna Control System Tests

PROCEDURE / REPORT OF TEST N° 3.5						
TEST NAME: T-1 Antenna and Antenna Control System		ELEMENT UNDER TEST: T-1 Antenna Subsystem			Serial N° and/or version:	
		TEST CONDUCTOR:	QA ENG:	CUSTOMER:	DATE START:	DATE END:
STEP	TEST SEQUENCE	EXPECTED RESULT	RESULT	REMARKS		
	T-1 Antenna Maintenance					
1.	Check antenna motors/brakes and lubrication and perform cleaning and lubrication.	OK	Select			
2.	Lubricate EL Drive Shaft and check motor operations for any abnormal noise.	OK	Select			
3.	Lubricate AZ Drive Sector and check motor operations for any abnormal noise.	OK	Select			
4.	Open, clean and check AZ Brake and clutch system functioning properly.	OK	Select			
5.	Check antenna Feed Membrane and Air leakage.	OK	Select			
	T-1 ACU Deploy, Stow and Jog					
1.	Check PDU for label indicating that it has been ruggedized.	OK	Select			
2.	Check that antenna drives in slow speed until the velocity switch is released.	OK	Select			
3.	Check that antenna stops for the stow bracket to be lowered.	OK	Select			
4.	DEPLOY the antenna and verify there are no fault messages present. Verify that the antenna elevation angle is 22.5 degrees.	OK	Select			
5.	Engage "HANDLE LATCH" Check in the Limit Switch Logic Box that the HANDLE LATCH LED is OFF when switch actuated.	OK	Select Select			

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PROCEDURE / REPORT OF TEST Nº 3.5						
TEST NAME: T-1 Antenna and Antenna Control System		ELEMENT UNDER TEST: T-1 Antenna Subsystem			Serial Nº and/or version:	
		TEST CONDUCTOR:	QA ENG:	CUSTOMER:	DATE START:	DATE END:
STEP	TEST SEQUENCE			EXPECTED RESULT	RESULT	REMARKS
6.	DEPLOY Antenna Wings Check in the 'Limit Switch Logic Box that the L WING DEPLOYED LED is OFF when switch actuated Check in the Limit Switch Logic Box that the R WING DEPLOYED LED is OFF when switch actuated			OK	Select Select Select	
7.	Activate STOW Mode and check antenna stowing and record antenna STOW command.			Elevation Stow command -58	Command:	
8.	Check antenna is centred on AZ properly to 0 degree and fitting into the frame, Check AZ STOW Centre switch operation. Check in the Limit Switch Logic Box that the AZ CENT LED is OFF when switch actuated			Check AZ centre Offset =0 Check Centre Switch	Offset= 0.0 Select	
9.	STOW Antenna Wings Check in the Limit Switch Logic Box that the L WING STOWED LED is OFF when switch actuated Check in the Limit Switch Logic Box that the R WING STOWED LED is OFF when switch actuated			OK	Select Select	
10.	Check antenna Stow Velocity switch activates and stops Antenna Elevation Drive and unit creates STOWED message. Check in the Limit Switch Logic Box that the EL VELOCITY LED is OFF when switch actuated			Check Antenna stops when velocity switch is actuated	Select Select	
11.	Check Antenna STOWED messages and actual STOW position Check in the Limit Switch Logic Box that the STOWED LED is OFF when switch actuated			Elevation Stow actual value Stowed message	Actual Value: _____ Select	
12.	Activate Emergency STOW mode with Wings open			HW Bypass ON	Select	

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PROCEDURE / REPORT OF TEST N° 3.5						
TEST NAME: T-1 Antenna and Antenna Control System		ELEMENT UNDER TEST: T-1 Antenna Subsystem			Serial N° and/or version:	
		TEST CONDUCTOR:	QA ENG:	CUSTOMER:	DATE START:	DATE END:
STEP	TEST SEQUENCE			EXPECTED RESULT	RESULT	REMARKS
13.	DEPLOY the antenna again and check Manual ACU / Antenna JOG Commands.			OK	Select	
14.	Release the Azimuth Brake and check Manual AZ Hand Cranking Check in the Limit Switch Logic Box that the AZ HANDCRANK LED is OFF when switch actuated Engage the Azimuth Brake.			OK	Select Select	
15.	Check Manual EL Hand Cranking Check in the Limit Switch Logic Box that the EL HANDCRANK LED is OFF when switch actuated			OK	Select	
16.	Check Feed Assembly is in good condition.			OK	Select	
	T-1 ACU Emergency Stop Checks					
1.	Verify the Emergency Stop on T-1 ACU stops antenna movement.			OK	Select	
2.	Verify ACU Emergency Stop activation reports to ASNMC			OK	Select	
3.	Verify resetting the ACU Emergency Stop restores antenna drive capability.			OK	Select	
4.	Verify the Emergency Stop on T-1 PDU stops antenna movement.			OK	Select	
5.	Verify PDU Emergency Stop activation reports to ASNMC			OK	Select	
6.	Verify resetting the ACU Emergency Stop restores antenna drive capability.			OK	Select	

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PROCEDURE / REPORT OF TEST Nº 3.5						
TEST NAME: T-1 Antenna and Antenna Control System		ELEMENT UNDER TEST: T-1 Antenna Subsystem			Serial Nº and/or version:	
		TEST CONDUCTOR:	QA ENG:	CUSTOMER:	DATE START:	DATE END:
STEP	TEST SEQUENCE	EXPECTED RESULT	RESULT	REMARKS		
<p>This figure summarizes the azimuth and elevation angle settings for the T-1 antenna and can be used a reference for the procedures in this section.</p> <div style="text-align: center;"> </div>						
1.	Connect the PMU Handheld Maintenance Unit to the T-1 PDU.			Select		

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PROCEDURE / REPORT OF TEST Nº 3.5						
TEST NAME: T-1 Antenna and Antenna Control System		ELEMENT UNDER TEST: T-1 Antenna Subsystem			Serial Nº and/or version:	
		TEST CONDUCTOR:	QA ENG:	CUSTOMER:	DATE START:	DATE END:
STEP	TEST SEQUENCE	EXPECTED RESULT	RESULT	REMARKS		
2.	Manually move the antenna to be positioned over the Container centre line and record the azimuth and elevation angles.		AZ: _____ EL: _____			
3	Calculate the approximate setting for the azimuth CW and CCW Pre-Limits. They are set at the factory to be approximately ± 65 degrees from the centre line setting. <ul style="list-style-type: none"> • CW limit = Centre line azimuth +65 degrees. • CCW limit = Centre line azimuth -65 degrees. 		CW Pre-Limit: _____ CCW Pre-Limit: _____			
4.	Record the azimuth angle and verify that there are no alarms present in the ACU or ASNMC.		AZ Angle: _____ Select			
5.	Drive the antenna in the CW direction. The ACU will alarm at the soft limit. Record the azimuth angle of the soft limit, verify the soft limit alarm is reported on the ACU and ASNMC.		Soft CW Limit: _____ Select			
6.	Continue driving the antenna in the CW direction. The antenna will stop near the Az CW Pre-Limit, calculated in step 3. Record the azimuth angle at the CW Pre-Limit and verify the Pre-Limit is reported on the ACU and ASNMC.		CW Pre-Limit: _____ Select			
7.	Confirm at the Limit Switch Logic Box that the AZ CW LED is OFF.		Select			
8.	Drive the antenna CCW to a valid point, record the azimuth angle and verify that there are no alarms present in the ACU or ASNMC and that the Limit Switch Logic Box that the AZ CW LED is ON.		AZ Angle: _____ Select			
9.	Drive the antenna in the CCW direction. The ACU will alarm at the soft limit. Record the azimuth angle of the soft limit, verify the soft limit alarm is reported on the ACU and ASNMC.		Soft CCW Limit: _____ Select			

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PROCEDURE / REPORT OF TEST Nº 3.5						
TEST NAME: T-1 Antenna and Antenna Control System		ELEMENT UNDER TEST: T-1 Antenna Subsystem			Serial Nº and/or version:	
		TEST CONDUCTOR:	QA ENG:	CUSTOMER:	DATE START:	DATE END:
STEP	TEST SEQUENCE	EXPECTED RESULT	RESULT	REMARKS		
10.	Continue driving the antenna in the CCW direction. The antenna will stop near the Az CCW Pre-Limit, calculated in step 3. Record the azimuth angle at the CCW Pre-Limit and verify the Pre-Limit is reported on the ACU and ASNMC.	OK	CCW Pre-Limit: _____ Select			
11.	Confirm at the Limit Switch Logic Box that the AZ CCW LED is OFF.	OK	Select			
12.	Drive the antenna in the CW direction back to the centre and verify that there are no alarms present in the ACU or ASNMC and that the Limit Switch Logic Box AZ CCW LED is ON.	OK	Select Select			
13.	Drive the antenna UP to a valid point, record the elevation angle and verify that there are no alarms present in the ACU or ASNMC and that the Limit Switch Logic Box AZ CCW LED is ON.	OK	EL Angle: _____ Select Select			
14.	Drive the antenna in the UP direction. The ACU will alarm at the soft limit. Record the elevation angle of the soft limit, verify the soft limit alarm is reported on the ACU and ASNMC.	OK	Soft UP Limit: _____ Select			
15.	Continue driving the antenna UP. The antenna will stop near the UP Pre-Limit, set at approximately 85 degrees. Record the elevation angle at the UP Pre-Limit and verify the Pre-Limit is reported on the ACU and ASNMC.	OK	UP Pre-Limit: _____ Select			
16.	Confirm at the Limit Switch Logic Box that the EL UP and EL UP-BACKUP LEDs are OFF.	OK	Select Select			
17.	Drive the antenna DOWN to a valid point, record the elevation angle and verify that there are no alarms present in the ACU or ASNMC and that the Limit Switch Logic Box that the EL UP and EL UP-BACKUP LEDs are OFF.	OK	EL Angle: _____ Select Select			

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PROCEDURE / REPORT OF TEST N° 3.5						
TEST NAME: T-1 Antenna and Antenna Control System		ELEMENT UNDER TEST: T-1 Antenna Subsystem			Serial N° and/or version:	
		TEST CONDUCTOR:	QA ENG:	CUSTOMER:	DATE START:	DATE END:
STEP	TEST SEQUENCE	EXPECTED RESULT	RESULT	REMARKS		
18.	Drive the antenna DOWN. The ACU will alarm at the soft limit. Record the elevation angle of the soft limit, verify the soft limit alarm is reported on the ACU and ASNMC.	OK	Soft DN Limit: _____ Select			
19.	Continue driving the antenna DOWN. The antenna will stop near DOWN Pre-Limit, set at approximately 0 degrees. Record the elevation angle at the DOWN Pre-Limit and verify the Pre-Limit is reported on the ACU and ASNMC.	OK	DN Pre-Limit: _____ Select			
	T-1 Antenna Safe-to-Transmit Limits					
1.	Point the antenna to clear sky and record the azimuth and elevation angles. This will be the antenna "set" position.	OK	AZ: _____ EL: _____			
2.	<u>Set up Modem and Spectrum Analyzer:</u> 1. Confirm all modems are OFF. 2. At the L-Band Uplink Patch Panel, connect the output of EBEM #1 to T-1 antenna. 3. Set EBEM #1 transmit to 1200 MHz CW at -20 dBm. 4. Connect a Spectrum Analyzer on feed coupler DC1 directly or at the RF Monitor/Test Panel port 1 to view transmitted carrier at RF.	OK	Select Select Select Select			
3	Configure the T-1 for normal operating conditions with the TWTAs in "Combined Offline" mode and operating at 10 dB output back-off.	OK				

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PROCEDURE / REPORT OF TEST Nº 3.5						
TEST NAME: T-1 Antenna and Antenna Control System		ELEMENT UNDER TEST: T-1 Antenna Subsystem			Serial Nº and/or version:	
		TEST CONDUCTOR:	QA ENG:	CUSTOMER:	DATE START:	DATE END:
STEP	TEST SEQUENCE	EXPECTED RESULT	RESULT	REMARKS		
4.	At the T-1 ACU, set the safe-to-transmit angular limits to: <ul style="list-style-type: none"> • Azimuth CW: +5 degrees from antenna set position • Azimuth CCW: -5 degrees from antenna set position • Elevation Up: +5 degrees from antenna set position • Elevation Down: -5 degrees from antenna set position 	OK	Select			
5.	Drive the antenna in azimuth CW +3 degrees from the set position. Verify the TWTAs are not inhibited (mute).	OK	Select			
6.	Drive the antenna in azimuth CW another +3 degrees (-6 degrees from the set position). Verify the TWTAs are inhibited (RF mute On, no carrier at DC1 and the ACU indicates alarms).	OK	Select			
7.	Drive the azimuth CCW -6 degrees. Clear the ACU alarm and verify the TWTAs transmit.	OK	Select			
8.	Drive the antenna in azimuth CCW -3 degrees. Verify the TWTAs are not inhibited.	OK	Select			
9.	Drive the antenna in azimuth CCW another -3 degrees (-6 degrees from the antenna set position). Verify the TWTAs are inhibited (RF mute On, no carrier at DC1 and the ACU indicates alarms).	OK	Select			
10.	Drive the azimuth CW +6 degrees. Clear the ACU alarm and verify the TWTAs transmit.	OK	Select			
11.	Drive the antenna elevation up +3 degrees. Verify the TWTAs are not inhibited.	OK	Select			
12.	Drive the antenna elevation up another +3 degrees (+6 degrees from the antenna set position). Verify the TWTAs are inhibited (RF mute On, no carrier at DC1 and the ACU indicates alarms).	OK	Select			

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PROCEDURE / REPORT OF TEST Nº 3.5						
TEST NAME: T-1 Antenna and Antenna Control System		ELEMENT UNDER TEST: T-1 Antenna Subsystem			Serial Nº and/or version:	
		TEST CONDUCTOR:	QA ENG:	CUSTOMER:	DATE START:	DATE END:
STEP	TEST SEQUENCE	EXPECTED RESULT	RESULT	REMARKS		
13.	Drive the antenna elevation down -6 degrees. Clear the ACU alarm and verify the TWTAs transmit.	OK	Select			
14.	Drive the antenna elevation down -3 degrees. Verify the TWTAs are not inhibited.	OK	Select			
15.	Drive the antenna elevation down another -3 degrees (-6 degrees from the antenna set position). Verify the TWTAs are inhibited (RF mute On, no carrier at DC1 and the ACU indicates alarms).	OK	Select			
16.	Drive the antenna elevation up +6 degrees (back to the antenna set position). Clear the ACU alarm and verify the TWTAs transmit.	OK	Select			
	T-1 Satellite Acquisition					
1.	Verify that all the required preconditions are met: <ul style="list-style-type: none"> • GPS quality minimum of 8 • Compass heading available • Inclometers feedback available (Tilt/Cross) • Feedboom clamps released 	OK	Select Select Select Select			
2.	Check Satellite Preset list is configured for the 6 satellites as shown in the table below.	OK	Select			

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PROCEDURE / REPORT OF TEST Nº 3.5						
TEST NAME: T-1 Antenna and Antenna Control System		ELEMENT UNDER TEST: T-1 Antenna Subsystem			Serial Nº and/or version:	
		TEST CONDUCTOR:	QA ENG:	CUSTOMER:	DATE START:	DATE END:
STEP	TEST SEQUENCE			EXPECTED RESULT	RESULT	REMARKS
	Satellite Name	Satellite Inclination	Track mode	S/S Antenna pointed	Input signal level	Observations
	GOVSAT	0	optrack	Select		Offset -45/low sig thr -80 /Bw:4Khz
	SKY 5B	0	optrack	Select		Offset -45/low sig thr -80 /Bw:4Khz
	SKY 5C	0	optrack	Select		Offset -45/low sig thr -80 /Bw:4Khz
	SKY 5D	0	optrack	Select		Offset -45/low sig thr -80 /Bw:4Khz
	SICRAL	0	optrack	Select		Offset -45/low sig thr -80 /Bw:4Khz
	SYRACUSE3A	0	optrack	Select		Offset -45/low sig thr -80 /Bw:280Khz
	WGS	0	optrack	Select		Offset -45/low sig thr -80 /Bw:280Khz

3.6 Uplink Level Checks

3.6.1 T-2 Uplink

Test Equipment:

- RF Power Meter

TEST NAME: T-2 UPLINK LEVELS CHECK		ELEMENT UNDER TEST: T-2 TRANSMIT			Serial N° and/or version:	
		TEST CONDUCTOR:			DATE START:	DATE END:
NUMBER	TEST SEQUENCE	EXPECTED RESULT	RESULT	REMARKS		
1.	Configure the SSPAs to Combined Offline mode. <i>Note: Use the ASNMC to configure the SSPAs to ensure that the slope equalizer is configured correctly.</i>	OK	Select			
2.	Manually switch T-2 BUC A on-line.	OK	Select			
3.	Turn the transmit carrier OFF for all but one EBEM modem to be used to generate the test signal.	OK	Select			
4.	Configure the Uplink L-Band Patch Panel so the RF output of the test EBEM modem is patched to the T-2 2.4m Antenna	OK	Select			
5.	Configure the test EBEM modem to transmit a CW signal at 1200 MHz at a level of -10 dBm.	OK	Select			
6.	Connect the RF power meter to the 2.4M HPA OUT Text Port 24 on the RF Monitor/Test Panel. <i>Note: Make sure the SSPAs have warmed up and their temperatures have stabilized before continuing.</i>	OK	Select			
7.	Measure and record the RF power at the RF Monitor/Test Panel for all 6 possible T-2 BUC/SSPA combinations:					
8.	BUC A / Combined SSPAs	51.3 dBm ±1 dB	_____ dBm			
9.	BUC A / SSPA A Only	51.3 dBm ±1 dB	_____ dBm			
10.	BUC A / SSPA B Only	51.3 dBm ±1 dB	_____ dBm			

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TEST NAME: T-2 UPLINK LEVELS CHECK		ELEMENT UNDER TEST: T-2 TRANSMIT			Serial N° and/or version:	
		TEST CONDUCTOR:			DATE START:	DATE END:
NUMBER	TEST SEQUENCE			EXPECTED RESULT	RESULT	REMARKS
11.	BUC B / Combined SSPAs			51.3 dBm ±1 dB	_____ dBm	
12.	BUC B / SSPA A Only			51.3 dBm ±1 dB	_____ dBm	
13.	BUC B / SSPA B Only			51.3 dBm ±1 dB	_____ dBm	

3.6.2 T-1 Uplink

Test Equipment:

- RF Power Meter

TEST NAME: T-1 UPLINK LEVELS CHECK		ELEMENT UNDER TEST: T-1 TRANSMIT			Serial N° and/or version:	
		TEST CONDUCTOR:			DATE START:	DATE END:
NUMBER	TEST SEQUENCE	EXPECTED RESULT	RESULT	REMARKS		
1.	Configure the TWTAs to Combined Offline mode. <i>Note: Use the ASNMC to configure the TWTAs to ensure that the slope equalizer is configured correctly.</i>	OK	Select			
2.	Turn the Beam ON for each TWTA.	OK	Select			
3.	Manually switch T-1 BUC A on-line.	OK	Select			
4.	Turn the transmit carrier OFF for all but one EBEM modem to be used to generate the test signal.	OK	Select			
5.	Configure the Uplink L-Band Patch Panel so the RF output of the test EBEM modem is patched to the T-1 4.6m Antenna	OK	Select			
6.	Configure the test EBEM modem to transmit a CW signal at 1200 MHz at a level of -10 dBm.	OK	Select			
7.	Connect the RF power meter to the 4.6M HPA OUT Text Port 2 on the RF Monitor/Test Panel. <i>Note: Make sure the TWTA beams have been ON for at least 30 minutes before continuing.</i>	OK	Select			
8.	Measure and record the RF power at the RF Monitor/Test Panel for all 6 possible T-1 BUC/TWTA combinations:					
9.	BUC A / Combined TWTAs	45.0 dBm ±1 dB	_____ dBm			
10.	BUC A / TWTA A Only	45.0 dBm ±1 dB	_____ dBm			
11.	BUC A / TWTA B Only	45.0 dBm ±1 dB	_____ dBm			
12.	BUC B / Combined TWTAs	45.0 dBm ±1 dB	_____ dBm			

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TEST NAME: T-1 UPLINK LEVELS CHECK		ELEMENT UNDER TEST: T-1 TRANSMIT			Serial N° and/or version:	
		TEST CONDUCTOR:			DATE START:	DATE END:
NUMBER	TEST SEQUENCE			EXPECTED RESULT	RESULT	REMARKS
13.	BUC B / TWTA A Only			45.0 dBm ±1 dB	_____ dBm	
14.	BUC B / TWTA B Only			45.0 dBm ±1 dB	_____ dBm	

3.7 Downlink Level Checks

3.7.1 T-2 Downlink

Test Equipment:

- Signal Generator, 7500 MHz
- Spectrum Analyzer

TEST NAME: T-2 DOWNLINK LEVELS CHECK		ELEMENT UNDER TEST: T-2 RECEIVE			Serial N° and/or version:	
		TEST CONDUCTOR:			DATE START:	DATE END:
NUMBER	TEST SEQUENCE	EXPECTED RESULT	RESULT	REMARKS		
1.	Configure the Signal Generator to 7500 MHz CW out and confirm that its RF output is OFF.	OK	Select			
2.	Connect the Signal Generator to the 2.4M LNA ON-LINE IN Test Point 17 port on the RF Monitor/Test Panel.	OK	Select			
3.	Set the Signal Generator to achieve a level of -62 dBm at the input of the LNAs.	OK	Select			
4.	Turn the Signal Generator RF output ON to inject the CW test signal into the on-line T-2 LNA.	OK	Select			
5.	Switch T-2 LNA A to the on-line position.	OK	Select			
6.	Using the Spectrum Analyzer, measure and record the signal level of the test carrier at a Divider A output at the Downlink L-Band Patch Panel.	-8.5 dBm	_____ dBm			
7.	Switch T-2 LNA B to the on-line position.	OK	Select			
8.	Using the Spectrum Analyzer, measure and record the signal level of the test carrier at a Divider A output at the Downlink L-Band Patch Panel.	-8.5 dBm	_____ dBm			

3.7.2 T-1 Downlink

Test Equipment:

- Signal Generator, 7500 MHz
- Spectrum Analyzer

TEST NAME: T-1 DOWNLINK LEVELS CHECK		ELEMENT UNDER TEST: T-1 RECEIVE			Serial N° and/or version:	
		TEST CONDUCTOR:			DATE START:	DATE END:
NUMBER	TEST SEQUENCE	EXPECTED RESULT	RESULT	REMARKS		
1.	Configure the Signal Generator to 7500 MHz CW out and confirm that its RF output is OFF.	OK	Select			
2.	Connect the Signal Generator to the 4.6M LNA ON-LINE IN Test Point 6 port on the RF Monitor/Test Panel.	OK	Select			
3.	Set the Signal Generator to achieve a level of -56 dBm at the input of the LNAs.	OK	Select			
4.	Turn the Signal Generator RF output ON to inject the CW test signal into the on-line T-1 LNA.	OK	Select			
5.	Switch T-1 LNA A to the on-line position.	OK	Select			
6.	Using the Spectrum Analyzer, measure and record the signal level of the test carrier at a Divider A output at the Downlink L-Band Patch Panel.	-8.5 dBm	_____ dBm			
7.	Switch T-1 LNA B to the on-line position.	OK	Select			
8.	Using the Spectrum Analyzer, measure and record the signal level of the test carrier at a Divider A output at the Downlink L-Band Patch Panel.	-8.5 dBm	_____ dBm			

3.8 Establish ASNMC Link to CSSC

Note: No authority is required to perform this procedure because the TSGT will only be transmitting with the ASNMC modem.

TEST NAME: ASNMC Link to CSSC		ELEMENT UNDER TEST: ENTIRE SYSTEM			Serial N° and/or version:	
		TEST CONDUCTOR:			DATE START:	DATE END:
NUMBER	TEST SEQUENCE	EXPECTED RESULT	RESULT	REMARKS		
	Preliminary Steps					
1.	Contact CSSC 1 day in advance.		Select			
2.	Confirm the time to start the test the next day			Test Start: _____ UTC.		
3.	Confirm which Satellite the test will be performed on.			Test Satellite: _____ UTC.		
4.	Confirm ASNMC Modem Option files are correct at both sites.		Select			
	Before Designated Test Time					
1.	Make sure all EBEM and EMSe modems are OFF.		Select			
2.	Place T-2 SSPAs and T-1 TWTAs in Combined Offline mode.		Select			
3.	Allow time for SSPAs and TWTAs to warm up.		Select			
4.	<u>Configure ASNMC Modem at L-Band Patch Panels for T-2 Antenna</u> 1. Uplink L-Band Patch Panel: Patch ASNMC to 2.4m RF SYSTEM 2. Downlink L-Band Patch Panel: Patch ASNMC to 2.4m RF SYSTEM		Select Select			
5.	At designated time, acquire the Satellite with the TSGT.		Select			
6.	Place T-2 SSPAs and T-1 TWTAs in Combined Online mode.		Select			

NATO UNCLASSIFIED

TEST NAME: ASNMC Link to CSSC		ELEMENT UNDER TEST: ENTIRE SYSTEM			Serial N° and/or version:	
		TEST CONDUCTOR:			DATE START:	DATE END:
NUMBER	TEST SEQUENCE	EXPECTED RESULT	RESULT	REMARKS		
7.	Enable all SSPAs and TWTAs for transmit.		Select			
8.	Verify link is established at ASNMC Modem (All LEDs are lit green)		Select			
9.	Contact CSSC with NATO Unclassified phone.		Select			
10.	CSSC to remote in and verify the status of the terminal.		Select			
11.	Call Control Centre with Restricted phone to confirm link.		Select			
12.	<u>Configure ASNMC Modem at L-Band Patch Panels for T-1 Antenna</u> 1. Uplink L-Band Patch Panel: Patch ASNMC to 4.6m RF SYSTEM 2. Downlink L-Band Patch Panel: Patch ASNMC to 4.6m RF SYSTEM		Select Select			
13.	Verify link is established at ASNMC Modem (All LEDs are lit green)		Select			
14.	Contact CSSC with NATO Unclassified phone.		Select			
15.	CSSC to confirm link via T-1 is good.		Select			
16.	Turn OFF all SSPAs and TWTAs and switch to Combined Offline mode of operation.		Select			
17.	STOW both antennas.		Select			

4 SUBMIT REPORT

Submit this report and any additional issues noted to Level 3 FSP personnel co-located with the terminal and to CSSC/Service-System Manager.

Maintenance and Support Concepts

A.1 Maintenance Concept

A Maintenance Concept is a definition of the maintenance objectives, line of maintenance, indenture levels, maintenance levels, maintenance support and their interrelationships.

A Maintenance Concept is applied for Hardware (HW) and produces maintenance tasks that will be performed on site, at civil or military maintenance facilities, at industry (Original Equipment Manufacturer, Contractor) maintenance facilities.

The Maintenance Concept identifies who-does-what-at-what-level in accordance with the maintenance levels and definitions defined below.

A.2 Hardware Maintenance Tasks

The hardware maintenance is:

- Corrective:
 - Deferred: maintenance carried out to perform a Remove & Replace action of a faulty item not affecting system operation. It is done in a time slot that does not further impact the Operational Availability (e.g. during a scheduled maintenance downtime period) or on “live” equipment if this is possible (e.g. when active redundancy or hot stand-by are implemented).
 - Run-to-failure: maintenance carried out to perform a Remove & Replace action of a faulty item affecting system operation (critical failure). The action is done as soon as all the resources (skills, tools and spares) are available to minimise the System downtime.
- Preventative:
 - On-condition: maintenance carried out to mitigate degradation and reduce the probability of failure after analysis of system conditions through defined indicators assessed on a periodic basis.
 - Scheduled (planned): maintenance carried out on a periodic basis (time-related or number-of-occurrences-related).

A.3 Hardware Maintenance Levels

The hardware maintenance is classified in four levels generally known as HL1, HL2 HL3 and HL4.

A.3.1 Hardware Organizational Maintenance (Level 1): HL1 (Not within Scope)

HL1 is hardware maintenance carried out:

- On-site;
- By relatively low technical skill level personnel performing preventive maintenance, and replacing LRUs and IIs on the basis of diagnostic outputs;
- Using BIT systems for start-up and on-line diagnostics, by referring to main equipment TM;
- No Special Tools and Test Equipment (TTE) are envisioned to be used;
- Typical tasks will include visual inspection, preventative maintenance tasks, manual reconfiguration if necessary, external adjustments, removal and replacement of LRUs/IIs;

- Includes system failure recovery by the application of simple on-line diagnostics or technician initiated restart of the system and the use of off-line diagnostics which do not require external test module support;
- By generation of equipment failure reports, supply requisitions and other pertinent maintenance and supply records.

A.3.2 Hardware Organizational Maintenance (Level 2): HL2 (Not within scope)

HL2 is hardware maintenance carried out:

- On-site;
- By higher technical skill level personnel performing preventive maintenance and replacing LRUs and IIs on the basis of diagnostic outputs;
- Using BIT systems for start-up and on-line diagnostics, simple TTE (standard and special-to-type) in addition to BIT as a means for on-line and off-line diagnostics, and by referring to main equipment TMs to perform exhaustive fault isolation;
- Simple either commercial or special-to-type TTE are envisioned to be used (e.g.: screwdrivers, multi-meters, oscilloscope, adapters, peculiar support equipment);
- Where the fault is beyond the capabilities of HL1 technical support, HL2 activities will be performed by Support Site personnel (through on-site intervention);
- Where remote fault management is not feasible, technicians from the host site will travel to the remote site hand carrying relevant spares to perform maintenance tasks;
- By generation of equipment failure reports, supply requisitions and other pertinent maintenance and supply records.

A.3.3 Hardware Intermediate Maintenance (Level 3): HL3 (In Scope)

HL3 is hardware maintenance carried out:

- At maintenance facilities and through technical support and assistance or on-site intervention/work by maintenance personnel with skills enabling tasks to be accomplished within the relevant technologies;
- By higher technical skill level personnel performing:
- Repairing, testing and calibrating LRU, Shop Replaceable Units (SRU) and Secondary Spare Parts (SSP);
- On-site investigations and major scheduled servicing/overhaul, detailed inspection, major equipment repair, major equipment modification, complicated adjustments, system/equipment testing;
- Failure trend analysis including reporting to relevant Purchaser authorities and Post Design Services (PDS);
- Repair tasks will be performed using Automatic Test Equipment (ATE), general purpose and special-to-type TTE, calibration equipment, any applicable support software, and the necessary equipment TMs and a Technical Data Package (TDP);
- Where the fault is beyond the capabilities of HL1/2 technical support, HL3 activities will be performed by support site personnel (through on-site intervention) or by the Contractor, depending on the maintenance concept;
- It includes generation of equipment failure reports, supply requisitions and other pertinent maintenance and supply records.

A.3.4 Hardware Depot Maintenance (Level 4): HL4 (Not within scope)

HL4 is hardware maintenance carried out:

- At maintenance facilities (industry or military, original equipment manufacturers) and through technical support and assistance or on-site intervention/work by maintenance personnel with skills enabling tasks to be accomplished within the relevant technologies;
- Where the fault is beyond the capabilities of HL1-3 technical support, HL4 activities will be performed by the Contractor;
- It includes generation of equipment failure reports, supply requisitions and other pertinent maintenance and supply records.

NCIA/ACQ/2021/06840
25 June 2021

To : See Attached Distribution List

Subject : **INVITATION FOR BID NO. IFB-CO-115401-TSGT-ISS**
NATO Transportable Satellite Ground Terminals Third Generation (TSGT3G) and Upgraded Transportable Satellite Ground Terminals (UTSGT) In-Service Support Activities

References : A. Budget Committee Budget Procurement Guidance, document BC-D(2018)0004-FINAL dated 29 January 2018;
B. NCIO Financial Rules and Procedures, document AC/337-D(2016)0014 dated 16 March 2016;
C. NATO Security Policy, document C-M(2002)49;
D. NCI Agency Notification of Intent to Invite Bids for IFB-CO-115401-TSGT-ISS with reference NCIA/ACQ/2021/06605 dated 19 February 2021.

Dear Madam/ Sir,

1. Your firm is hereby invited to participate in an **International Competitive Bidding** under the procedures set forth at References (**Error! Reference source not found.**) through (C) for the provision of In-Service Support of the NATO Family of Transportable Satellite Ground Terminals (TSGTs). This contract will provide for a fixed number of scheduled services, executed at the Peace Time Location (PTL) of the systems throughout NATO.
2. **THE CLOSING TIME FOR SUBMISSION OF BIDS IN RESPONSE TO THIS INVITATION FOR BID IS 14:00 HOURS (BRUSSELS TIME) ON 31 August 2021.**
3. The full requirements of the project are described in the Prospective Contract (Book II), part of the Invitation for Bid (IFB) package, attached to this letter.
4. NATO intends placing one contract to cover the entire scope of the requirement. Partial bidding is not allowed.
5. Contract Award will be made on a Firm Fixed Price Basis (with exception for CLIN 2 that is Not To Exceed) to the proposal evaluated as the lowest price, technically compliant in accordance with the selection criteria set forth in the Bidding Instructions (Book I) attached to this letter.

6. The Contract Award is expected not later than December 2021.
7. It is intended to award the Contract for the provision of services for an initial baseline period of 2 (two) years, with 3 (three) optional years that can be exercised on an annual basis. Given the fact that this IFB is issued prior to NATO funding committees authorisation, the Purchaser reserves the right to make the decision regarding the Contract baseline period any time prior to the Contract award.
8. The reference for the Invitation for Bid is **IFB-CO-115401-TSGT-ISS**, and all correspondence concerning the IFB should reference this number.
9. Contract Award is subject to BC authorization and funding priority and availability as determined by the NATO Budget Committee. The NCI Agency reserves the right to amend the requirements and schedule as may be directed by the Budget Committee.
10. This Invitation for Bid consists of the Bidding Instructions (Book I), and the Prospective Contract (Book II). The Prospective Contract contains the Schedule of Supplies and Services (Part I), Contract Special Provisions (Part II), NCI Agency Contract General Provisions (Part III), and the Statement of Work (SoW) with its Annexes (Part IV). The SoW and its Annexes thereto set forth detailed specifications governing the performance requirements of the Prospective Contract.
11. Bidders are advised that the overall security classification of this IFB Package is 'NATO UNCLASSIFIED'. This IFB remains the property of the NCI Agency and shall be protected in accordance with the applicable national security regulations.
12. The successful Bidder will be required to handle and store classified information up to the level of "NATO RESTRICTED". In addition, Contractors' personnel working on NATO sites will be required to hold "NATO SECRET" individual security clearances. Contractor will be required to handle and store classified material to the level of "NATO RESTRICTED" and the Contractor shall have the appropriate facility and personnel clearances of "NATO SECRET". Should a Contractor be unable to perform the Contract due to the fact that the facility clearance has not been provided by their respective national security agency, this lack of clearance cannot be the basis for a claim of adjustment or an extension of schedule, nor the lack of clearance be considered a mitigating circumstance in the case of an assessment of Liquidated Damages or a determination of Termination For Default by the Purchaser.
13. Bidders have the right to request IFB clarifications as outlined in Section 2.6 of the Bidding Instructions (Book I). All requests for clarification will be dealt strictly in accordance with the procedures set out in the Bidding Instructions.
14. Recipients are requested to complete and return the enclosed 'Acknowledgement of Receipt' at Attachment A within 7 days of the date of this letter, informing the NCI Agency of their intention to bid/ not to bid. Firms are not bound by their initial decision, and if a firm decides to reverse its stated intention at a later date, it is requested to advise the NCI Agency by a separate communication.
15. This IFB does not constitute either a financial or contractual commitment at this stage. Prospective Bidders are advised that the NCI Agency reserves the right to cancel, withdraw or suspend this IFB at any time in its entirety and bears no liability for bid preparation costs incurred by firms or any other collateral costs if bid cancellation, withdrawal or suspension occurs.

16. The **Prospective Bidders List** was drafted based on the nominations received from the Nations to the date of this letter. NATO Delegations are invited to review the list and confirm that it is complete, or submit any other Declarations of Eligibility if required.

17. The NCI Agency point of contact for all information concerning this IFB is:

NATO Communications and Information Agency
Acquisition Directorate
Boulevard Léopold III, 1110 Brussels, Belgium

Attn: Tiziana Pezzi, Principal Contracting Officer
Cc: Irina Barabancea, Contracting Officer (Contractor)
Frank Iyakaremye, Contracting Officer

E-mail: IFBCO115401TSGTISS@ncia.nato.int

FOR THE DIRECTOR OF ACQUISITION:

Alexandre Vitry
Chief of Contracts

Attachments:

- A. Acknowledgement of Receipt of IFB-CO-115401-TSGT-ISS
- B. Invitation for Bid IFB-CO-115401-TSGT-ISS

ATTACHMENT A
ACKNOWLEDGEMENT OF RECEIPT OF INVITATION FOR BID
IFB-CO-115401-TSGT-ISS

Please complete and return (as .pdf scan) within 7 working days
by e-mail at IFBCO115401TSGTISS@ncia.nato.int

Date: _____

We hereby advise that we have received Invitation for Bid IFB-CO-115401-TSGT-ISS on _____, together with all enclosures listed in the Table of Contents.

PLEASE CHECK ONE:

- As of this date and without commitment on our part, we **do intend** to submit a bid.
- We **do not intend** to submit a bid (please find in return the IFB documents/or Certificate of Destruction, if applicable).
- We are reviewing the requirements of the IFB and will notify you of our decision as soon as possible.

Signature: _____

Printed Name: _____

Title: _____

Company: _____

BOA no. (if any): _____

Address: _____

POC for the Bid: _____

Tel.: _____

Fax: _____

E-mail: _____

Distribution List for IFB-CO-115401-TSGT-ISS

All Nominated Prospective Bidders 1

NATO Delegations (Attn: Investment Adviser):

Albania	1
Belgium	1
Bulgaria	1
Canada	1
Croatia	1
Czech Republic	1
Denmark	1
Estonia	1
France	1
Germany	1
Greece	1
Hungary	1
Iceland	1
Italy	1
Latvia	1
Lithuania	1
Luxembourg	1
Montenegro	1
Netherlands	1
North Macedonia	1
Norway	1
Poland	1
Portugal	1
Romania	1
Slovakia	1
Slovenia	1
Spain	1
Turkey	1
The United Kingdom	1
The United States of America	1

Belgian Ministry of Economic Affairs 1

Embassies in Brussels (Attn: Commercial Attaché):

Albania	1
Belgium	1
Bulgaria	1
Canada	1
Croatia	1
Czech Republic	1
Denmark	1
Estonia	1
France	1
Germany	1
Greece	1
Hungary	1
Iceland	1
Italy	1
Latvia	1
Lithuania	1
Luxembourg	1
Montenegro	1
Netherlands	1
North Macedonia	1
Norway	1
Poland	1
Portugal	1
Romania	1
Slovakia	1
Slovenia	1
Spain	1
Turkey	1
The United Kingdom	1
The United States of America	1

Distribution for information (Blind to Potential Industrial Suppliers):

NATO HQ

1

Strategic Commands *(as applicable to funding source)*

Budget Committee Secretariat

1

NATEXs

All NATEXs

1 Each

NCI Agency (Internal distribution)

NCI Agency (Internal distribution)

Registry (for distribution)

ATTACHMENT B
Invitation for Bid
IFB-CO-115401-TSGT-ISS

Contents of Attachment C:

- a) BOOK I - Bidding Instructions

- b) BOOK II - Prospective Contract
 - i. Part I Schedule of Supplies and Services (SSS)
 - ii. Part II Contract Special Provisions (SPs)
 - iii. Part III NCI Agency Contract General Provisions (GPs)
 - iv. Part IV Statement of Work (SoW)



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

INVITATION FOR BID

IFB-CO-115401-TSGT-ISS

NATO Transportable Satellite Ground Terminals Third Generation (TSGT3G) and Upgraded Transportable Satellite Ground Terminals (UTSGT) In-Service Support Activities

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- Section 2 General Bidding Information
- Section 3 Bid Preparation Instructions
- Section 4 Bid Evaluation

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- Annex B Certificates
- Annex C Cross Reference/Compliance Table
- Annex D Bid Guarantee - Standby Letter of Credit
- Annex E Clarification Requests forms

BOOK II - THE PROSPECTIVE CONTRACT

- Signature Sheet
- Part I Schedule of Supplies and Services (SSS)
- Part II Contract Special Provisions (SPs)
- Part III Contract General Provisions (GPs)
- Part IV Statement of Work (SOW)



**INVITATION FOR BID
IFB-CO-115401-TSGT-ISS**

**BOOK I
BIDDING INSTRUCTIONS**

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SECTION 1 INTRODUCTION

1.1. Purpose of the Solicitation

- 1.1.1. The purpose of this solicitation is to invite Bids for the provision of In-Service Support of the NATO Family of Transportable Satellite Ground Terminals (TSGTs). This contract will provide for a fixed number of scheduled services, executed at the Peace Time Location (PTL) of the systems throughout NATO.
- 1.1.2. The NATO Communications and Information Agency (NCI Agency) is the designated Host Nation of this project, hereby referred to as 'the Purchaser'.
- 1.1.3. No deployable nor static infrastructure will be procured under this IFB.
- 1.1.4. The Participating Countries are listed in paragraph 2.1.1.6.
- 1.1.5. The selected Contractor shall provide the services and implement the performance requirements as set forth in the Statement of Work (Book II, Part IV) and in the Schedule of Supplies and Services (Book II, Part I) in the manner, and at times and place, stated in the Prospective Contract.

1.2. Scope of the Project

- 1.2.1. The scope of this procurement is to provide In-Service Support of the NATO Family of Transportable Satellite Ground Terminals (TSGTs). This contract will provide for a fixed number of scheduled services, executed at the Peace Time Location (PTL) of the systems throughout NATO.
- 1.2.2. The expected target Not-Later-Than (NLT) date of Contract Award (CAW) is **December 2021**.
- 1.2.3. It is intended to award the Contract for the provision of services for an initial baseline period of two (2) years, with Options for three (3) yearly Contract extensions (i.e. 2+1+1+1).
- 1.2.4. Given the fact that this IFB is issued prior to NATO funding committees authorisation, the Purchaser reserves the right to make the decision regarding the Contract baseline period any time prior to the Contract award.

1.3. Governing Rules, Eligibility, and Exclusion Provisions

- 1.3.1. This solicitation is an International Invitation for Bid and is governed by the NATO Financial Rules and Procedures and NATO Budget Committee procurement guidance under document BC-D(2018)0004-FINAL dated 29 January 2018.
- 1.3.2. Pursuant to these procedures, Bidding is restricted to companies from participating NATO member nations for which a Declaration of Eligibility (DoE) has been issued by their respective government authorities.

- 1.3.3. The evaluation procedure conducted under this Invitation for Bid will be the One-Envelope Procedure, Lowest Price Technically Compliant bid.
- 1.3.4. Award of the resulting Contract will be made on a firm fixed price basis to the lowest price technically compliant Bidder.
- 1.3.5. The Purchaser liabilities at the time of Contract signature shall be limited to the effort relevant to the Basic Contract as defined in the Statement of Work and the Schedule of Supplies and Services. Performance associated with Evaluated Options shall be subject to formal Purchaser request, in accordance with Article 6 (Options) of the Contract Special Provisions, and shall not constitute an obligation on the part of the Purchaser at the time of Contract signature.
- 1.3.6. The solicitation, evaluation and award processes will be conducted in accordance with the terms and conditions contained herein.
- 1.3.7. This IFB will not be the subject of a public bid opening.
- 1.3.8. The Bidder shall refer to the Purchaser all queries for a resolution of possible conflicts found in information contained in this document in accordance with the procedures set forth in paragraph 2.6 "Requests for IFB Clarifications".

1.4. Security

- 1.4.1. The overall security classification of this Invitation for Bid is "NATO UNCLASSIFIED".
- 1.4.2. For the purpose of the performance under the Contract, the Contractor shall be required to handle and store classified material up to the level of "NATO SECRET" and shall therefore possess at the time of Contract award the appropriate facility and personnel clearances. Should a Contractor be unable to perform the Contract due to the fact that the facility clearance has not been provided by their respective national security agency, this lack of clearance cannot be the basis for a claim of adjustment or an extension of schedule, nor the lack of clearance be considered a mitigating circumstance in the case of an assessment of Liquidated Damages or a determination of Termination for Default by the Purchaser.
- 1.4.3. Contractor personnel working at NATO sites are required to possess a security clearance of "NATO SECRET", which shall be confirmed by the appropriate national security authority and transmitted to the cognisant NATO security officer at least fourteen (14) days prior to the site visit. Denial of such access by the Purchaser may not be used by the Contractor as the basis for a claim of adjustment or an extension of schedule nor can the denial of access be considered a mitigating circumstance in the case of an assessment of Liquidated Damages or a determination of Termination for Default by the Purchaser. Contractor personnel who need System Administrator or Operator privileges when working on NATO SECRET systems shall be required to hold NATO CTS clearances.
- 1.4.4. Bidders are advised that Contract signature will not be delayed in order to allow the processing of security clearances for personnel or facilities and,

should the otherwise successful Bidder not be in a position to accept the offered Contract within a reasonable period of time, due to the fact that its personnel or facilities do not possess the appropriate security clearance(s), the Purchaser may determine the Bidder's Offer to be non-compliant and offer the Contract to the next ranking Bidder. In such a case, the Bidder who would not sign the Contract shall be liable for forfeiture of the Bid Guarantee.

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

SECTION 2 GENERAL BIDDING INFORMATION

2.1. Definitions

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

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

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

2.1.1.3. "Contractor": the awardee of this solicitation of offers, who shall be responsible for the fulfilment of the requirements established in the Prospective Contract.

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

2.1.1.5. "IFB": Invitation for Bid.

2.1.1.6. "Participating Country": any of the NATO nations contributing to the project, namely, (in alphabetical order):

ALBANIA, BELGIUM, BULGARIA, CANADA, CROATIA, CZECH REPUBLIC, DENMARK, ESTONIA, FRANCE, GERMANY, GREECE, HUNGARY, ICELAND, ITALY, LATVIA, LITHUANIA, LUXEMBOURG, MONTENEGRO, NETHERLANDS, NORTH MACEDONIA, NORWAY, POLAND, PORTUGAL, ROMANIA, SLOVAKIA, SLOVENIA, SPAIN, TURKEY, UNITED KINGDOM, UNITED STATES OF AMERICA.

2.1.1.7. "Purchaser": NATO Communications and Information Agency (NCI Agency) or its legal successor.

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

2.2. Eligibility and Origin of Equipment and Services

- 2.2.1. As stated in paragraph 2.1.1.6 above only firms from a Participating Country are eligible to engage in this competitive Bidding process. In addition, all Contractors, Subcontractors and manufacturers, at any tier, must be from Participating Countries.
- 2.2.2. None of the work, including project design, labour and services shall be performed other than by firms from and within Participating Countries.
- 2.2.3. No materials or items of equipment down to and including identifiable Sub-assemblies shall be manufactured or assembled by a firm other than from and within a Participating Country.
- 2.2.4. Unless otherwise authorised by the terms of the prospective Contract, the Intellectual Property Rights (IPR) to all design documentation and related system operating software shall reside in Participating Countries, and no license fees or royalty charges shall be paid by the Contractor to firms, individuals or governments other than within the Participating Countries.
- 2.2.5. The Bidders are requested to sign the certifications under Annex B-8, Annex B-9 and Annex B-12 for this purpose.

2.3. Bid Delivery and Bid Closing

- 2.3.1. All Bids shall be in the possession of the Purchaser at the address given below in paragraph 2.3.3 on/or before **14.00 hours (Brussels Time) on 31 August 2021**, at which time and date Bidding shall be closed.
- 2.3.2. If necessary, extension(s) of the Bid Closing Date will be notified with the issuance of formal Amendments to the IFB.
- 2.3.3. Bids shall be delivered in **electronic format only** to the following email address:

IFBCO115401TSGTISS.Bids@ncia.nato.int
- 2.3.4. The Bid shall consist of three (3) separate subject emails:
 1. For the **first e-mail** the subject line shall read: “**IFB-CO-115401-TSGT-ISS – Official Bid for [company name] – Part 1 - Administrative Package**”. The e-mail content shall be as described in Paragraph 3.2.2, Part I: Bid Administration Package below, with no password protection to the file and shall be not larger than 20MB total.
 2. For the **second e-mail** the subject line shall read: “**IFB-CO-115401-TSGT-ISS – Official Bid for [company name] – Part 2 - Price Proposal**”. The e-mail content shall be as described in Paragraph 3.2.2, Part II: Price Proposal below, with no password protection to the file, and shall be not larger than 20MB total.
 3. For the **third e-mail** the subject line shall read: “**IFB-CO-115401-TSGT-ISS – Official Bid for [company name] – Part 3 – Technical Proposal**”. The e-mail content shall be as described in Paragraph 3.2.2, Part III: Technical Proposal below, with no password

protection to the file, and shall be not larger than 20MB total per e-mail. For large Technical Proposals, multiple emails may be required to submit the entire package.

- 2.3.5. Consideration of Late Bid. Bids which are delivered to the Purchaser after the specified time and date set forth above for Bid Closing are "Late Bids" and shall not be considered for award.
- 2.3.6. It is the responsibility of the Bidder to ensure that the bid submission is duly completed by the specified bid closing time and date. If a bid received at the NCI Agency's facility by electronic data interchange is unreadable to the degree that conformance to the essential requirements of the solicitation cannot be ascertained, the Purchaser will immediately notify the Bidder that the bid will be rejected unless the Bidder provides clear and convincing evidence:
- a) Of the content of the Bid as originally submitted; and,
 - b) That the unreadable condition of the bid was caused by Purchaser software or hardware error, malfunction, or other Purchaser mishandling
- 2.3.7. Bids which are delivered to the Purchaser after the specified time and date set forth above for Bid Closing are "Late Bids" and shall not be considered for award. Consideration of Late Bid – The Purchaser considers that it is the responsibility of the Bidder to ensure that the Bid submission arrives by the specified Bid Closing Date and Time. A late Bid shall only be considered for award under the following circumstances:
- 2.3.7.1. A Contract has not already been awarded pursuant to the Invitation for Bid, and;
 - 2.3.7.2. The Bid was sent to the e-mail address specified in the IFB and the delay was solely the fault of the Purchaser.

2.4. Requests for Extension of Bid Closing Date

- 2.4.1. Any requests for extension to the Bid Closing Date shall be submitted by the Bidder in writing **only through its National Delegation to NATO or its Embassy in Belgium** to the Purchaser's point of contact indicated in paragraph 2.5.1 below. The Bidder shall submit the request to the National Delegation in sufficient time, so as to allow the Delegation to deliver Bidder's formal request to the Purchaser no later than fourteen (14) calendar days prior to the established Bid closing date. The Purchaser is under no obligation to answer requests submitted after this time. Extensions to the bidding date are at the discretion of the Purchaser.

2.5. Purchaser's Point of Contact

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

NATO Communications and Information Agency
Acquisition Directorate
NATO Headquarters, Boulevard Leopold III
1110 Brussels, Belgium

Attn: Tiziana Pezzi, Principal Contracting Officer
Cc: Irina Barabancea, Contracting Officer and Frank Iyakaremye,
Contracting Officer

E-mail: IFBCO115401TSGTISS@ncia.nato.int

2.6. Request for IFB Clarifications

- 2.6.1. Bidders, during the solicitation period, are encouraged to query and seek clarification of any matters of a contractual, administrative and technical nature pertaining to this IFB.
- 2.6.2. All requests for clarification shall be forwarded to the Purchaser using the Clarification Request Forms provided at **ANNEX E - CLARIFICATION REQUEST FORM** of this Book I. Bidders are encouraged to keep the classification of their request NATO Unclassified where possible by making use of references to the specific Statement of Work (SoW) paragraphs instead of repeating the text in their requests. Such requests shall be forwarded to the point of contact specified in paragraph 2.5.1 above and shall arrive not later than **twenty eight (28) calendar days prior to the stated "Bid Closing Date"**. The Purchaser is under no obligation to answer requests for clarification submitted after this time. Requests for clarification must address the totality of the concerns of the Bidder, as the Bidder will not be permitted to revisit areas of the IFB for additional clarification except as noted in paragraph 2.6.3 below.
- 2.6.3. Additional requests for clarification are limited only to the information provided as answers by the Purchaser to Bidder requests for clarification. Such additional requests shall arrive not later than fourteen (14) calendar days before the established Bid Closing Date.
- 2.6.4. The Purchaser may provide for a re-wording of questions and requests for clarification where it considers the original language ambiguous, unclear, subject to different interpretation or revelatory of the Bidder's identity.
- 2.6.5. Bidders are advised that subsequent questions and/or requests for clarification included in a Bid shall neither be answered nor considered for evaluation.
- 2.6.6. Except as provided above, all questions will be answered by the Purchaser and the questions and answers (but not the identity of the questioner) will be issued in writing to all prospective Bidders.
- 2.6.7. It is the responsibility of the Bidders to ensure that all Clarification Requests submitted bear no mark, logo or any other form or sign that may lead to reveal the Bidders' identity in the language constituting the clarification itself. This prescription is not applicable to the mean used for the transmission of the clarification (i.e. email or form by which the clarification is forwarded). The Purchaser declines all responsibilities associated to any and all circumstances regardless of the nature or subject matter arising from the Bidders' failure or inability to abide to this prescription. The Purchaser may

provide for the removal of any form of identification in the body of the clarification request in those instances in which such practice is feasible.

- 2.6.8. Where the extent of the changes implied by the response to a clarification request is of such a magnitude that the Purchaser deems necessary to issue revised documentation, the Purchaser will do so by the means of the issuance of a formal IFB amendment in accordance with paragraph 2.8 below.
- 2.6.9. The Purchaser reserves the right to reject questions and clarification requests clearly devised or submitted for the purpose of artificially obtaining an extension of the bidding time (i.e. clarifications re-submitted using different wording where such wording does not change the essence of the clarification being requested).
- 2.6.10. The published responses issued by the Purchaser shall be regarded as the authoritative interpretation of the Invitation for Bid. Any amendment to the language of the IFB included in the answers will be issued as an IFB Amendment and shall be incorporated by the Bidder in its offer.

2.7. Requests for Waivers and Deviations

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

2.8. Amendment of the Invitation for Bid

- 2.8.1. The Purchaser may revise, amend or correct the IFB at any time prior to the Bid Closing Date set in paragraph 2.3.1. Any and all modifications will be transmitted to all Bidders by an official amendment designated as such and signed by the Purchaser. This process may be part of the clarification procedures set forth in paragraph 2.6 above or may be an independent action on the part of the Purchaser.
- 2.8.2. All such IFB amendments issued by the Purchaser shall be acknowledged by the Bidder in its Bid by completing the "Acknowledgement of Receipt of IFB Amendments" certificate at Annex B-2. Failure to acknowledge receipt of all amendments may be grounds to determine the Bid to be administratively non-compliant.
- 2.8.3. The Purchaser will consider the potential impact of amendments on the ability of prospective Bidders to prepare a Bid within the allotted time. The Purchaser may extend the "Bid Closing Date" at its discretion and such extension will be set forth in the amendment.

2.9. Modification and Withdrawal of Bids

- 2.9.1. Bids, once submitted, may be modified by Bidders, but only to the extent that the modifications are in writing, conform to the requirements of the IFB, and are received by the Purchaser prior to the Bid Closing Date as detailed in paragraph 2.3.1. Such modifications will be considered as an integral part of the submitted Bid.
- 2.9.2. Modifications to Bids which arrive after the Bid Closing Date will be considered as "Late Modifications" and will be processed in accordance with the procedure detailed in paragraph 2.3.6, except that unlike a "Late Bid", the Purchaser will retain the modification until a selection is made. A modification to a Bid which is determined to be late will not be considered in the evaluation and selection process. If the Bidder submitting the modification is determined to be the successful Bidder on the basis of the unmodified Bid, the modification may then be opened. If the modification makes the terms of the Bid more favourable to the Purchaser, the modified Bid may be used as the basis of Contract award. The Purchaser, however, reserves the right to award a Contract to the apparent successful Bidder on the basis of the Bid submitted and disregard the late modification.
- 2.9.3. A Bidder may withdraw its Bid at any time prior to Bid Opening without penalty. In order to do so, an authorised agent or employee of the Bidder must provide an original statement of the firm's decision to withdraw the Bid.
- 2.9.4. Except as provided in paragraph 2.10.4.2 below, a Bidder may withdraw its Bid after Bid Opening only by forfeiture of the Bid Guarantee.

2.10. Bid Validity

- 2.10.1. Bidders shall be bound by the term of their Bid for a period of twelve (12) months starting from the Bid Closing Date specified in paragraph 2.3.1 above.
- 2.10.2. In order to comply with this requirement, the Bidder shall complete the Certificate of Bid Validity set forth in Annex B-4. Bids offering less than the period of time referred to above for acceptance by the Purchaser may be determined to be non-compliant.
- 2.10.3. The Purchaser will endeavour to complete the evaluation and make an award within the period referred to above. However, should that period of time prove insufficient to render an award, the Purchaser reserves the right to request an extension of the period of validity of all Bids which remain under consideration for award.
- 2.10.4. Upon notification by the Purchaser of such a request for a time extension, the Bidders shall have the right to:
- 2.10.4.1. Accept this extension of time in which case Bidders shall be bound by the terms of their offer for the extended period of time and the Bid Guarantee and Certificate of Bid Validity extended accordingly; or

- 2.10.4.2. Refuse this extension of time and withdraw the Bid, in which case the Purchaser will return to the Bidder its Bid Guarantee in the full amount without penalty.
- 2.10.5. Bidders shall not have the right to modify their Bids due to a Purchaser request for extension of the Bid validity unless expressly stated in such request.

2.11. Bid Guarantee

- 2.11.1. The Bidder shall furnish with its Bid a guarantee in an amount equal to Three Hundred Thousand Euro (€ 300,000) with a validity equal to that of the bid as expressed in paragraph 2.10.1. The Bid Guarantee shall be in the form of an irrevocable, unqualified and unconditional bid bond, i.e. Standby Letter of Credit (SLC) **issued by a Belgian banking institution fully governed by Belgian legislation** or issued by a non-Belgian financial institution and confirmed by a Belgian banking institution fully governed by Belgian legislation. In the latter case signed original letters from both the issuing institution and the confirming institution must be provided. The confirming Belgian bank shall clearly state that it will guarantee the funds, the drawing against can be made by the NCI Agency at its premises in Belgium. Bid Guarantees shall be made payable to the Treasurer, NCI Agency.
- 2.11.2. “Standby Letter of Credit” or “SLC” as used herein, means a written commitment by a Belgian financial institution either on its own behalf or as a confirmation of the Standby Letter of Credit issued by a non-Belgian bank to pay all or part of a stated amount of money, until the expiration date of the letter, upon presentation by the Purchaser of a written demand therefore. Neither the financial institution nor the Contractor can revoke or condition the Standby Letter of Credit. The term “Belgian financial institution” includes non-Belgian financial institutions licensed to operate in Belgium.
- 2.11.3. The format that may be used by the issuing financial institution to create a Standby Letter of Credit is provided under ANNEX D – BID GUARANTEE – STANDBY LETTER OF CREDIT.
- 2.11.4. The Bid Guarantee shall be submitted provide in the Bid Administration Package. Bidders are reminded that the Bid Guarantee shall reflect any extensions to the Bid Validity Date due to extensions in the Bid Closing Date.
- 2.11.5. Alternatively, a Bidder may elect to post the required Guarantee by certified check. If the latter method is selected, Bidders are informed that the Purchaser will cash the check on the Bid Closing Date or as soon as possible thereafter.
- 2.11.6. If the Bid Closing Date is extended after a Bidder's financial institution has issued a Bid Guarantee, it is the obligation of the Bidder to have such Bid Guarantee (and confirmation, as applicable) extended to reflect the revised Bid Validity date occasioned by such extension.
- 2.11.7. Failure to furnish the required Bid Guarantee in the proper amount, and/or in the proper form and/or for the appropriate duration by the Bid Closing Date may be cause for the Bid to be determined non-compliant.

- 2.11.8. In the event that a Bid Guarantee is submitted directly by a banking institution, the Bidder shall furnish a copy of said document in the Bid Administrative Package.
- 2.11.9. The Purchaser will make withdrawals against the amount stipulated in the Bid Guarantee under the following conditions:
 - 2.11.9.1. The Bidder has submitted a Bid and, after Bid Closing Date (including extensions thereto) and prior to the selection, the compliant Bidder determined to represent the winning Bid, withdraws its Bid, or states that it does not consider its Bid valid or agree to be bound by its Bid, or
 - 2.11.9.2. The Bidder has submitted a compliant Bid determined by the Purchaser to represent the winning Bid, but the Bidder declines to sign the Contract offered by the Purchaser, such Contract being consistent with the terms of the Invitation for Bid.
 - 2.11.9.3. The Purchaser has offered the Bidder the Contract for execution but the Bidder has been unable to demonstrate compliance with the security requirements of the Contract within a reasonable time.
 - 2.11.9.4. The Purchaser has entered into the Contract with the Bidder but the Bidder has been unable or unwilling to provide the Performance Guarantee required under the terms of the Contract within the time frame required.
- 2.11.10. Bid Guarantees will be returned to Bidders as follows:
 - 2.11.10.1. to non-compliant Bidders forty-five (45) days after notification by the Purchaser of a non-compliant Bid (except where such determination is challenged by the Bidder; in which case the Bid Guarantee will be returned forty-five (45) days after a final determination of non-compliance);
 - 2.11.10.2. to all other unsuccessful Bidders within thirty (30) days following the award of the Contract to the successful Bidder;
 - 2.11.10.3. to the successful Bidder upon submission of the Performance Guarantee required by the Contract or, if there is no requirement for such a Performance Guarantee, upon Contract execution by both parties.
 - 2.11.10.4. pursuant to paragraph h 2.10.4.2 above.

2.12. Cancellation of Invitation for Bid

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

2.13. Electronic Transmission of Information and Data

- 2.13.1. The Purchaser will communicate answers to requests for clarification and amendments to this IFB to the prospective Bidders as soon as practicable.
- 2.13.2. Bidders are cautioned that the Purchaser will rely exclusively on electronic mail communication to manage all correspondence related to this IFB, including IFB Amendments and clarifications
- 2.13.3. Bidders are cautioned that electronic transmission of documentation which contains classified information is not permissible

2.14. Supplemental Agreements

- 2.14.1. Bidders are required, in accordance with the certificate at Annex B-7 of these Instructions to Bidders, to disclose any prospective Supplemental Agreements that are required by national governments to be executed by NATO/ NCI Agency as a condition of Contract performance.
- 2.14.2. Supplemental Agreements are typically associated with, but not necessarily limited to, national export control regulations, technology transfer restrictions and end user agreements or undertakings.
- 2.14.3. Bidders are cautioned that failure to provide full disclosure of the anticipated requirements and the terms thereof, to the best of the Bidder's knowledge and experience, may result in the Purchaser withholding award of the Contract or cancelling an executed Contract if it is discovered that the terms of such Supplemental Agreements contradict salient conditions of the Prospective Contract to the extent that either key objectives cannot be accomplished or basic Contract principles and Purchaser rights have been limited.
- 2.14.4. If supplemental agreements, such as End-User Certificates or Technical Assistance Agreements, are required by national regulations, these must be submitted within the Bid Administrative Package (3.3.3.7). Supplemental agreements submitted after the Bid Closing Date shall not be considered.
- 2.14.5. The terms of supplemental agreements, if necessary, are the Bidders/Contractors responsibility and shall be totally consistent with the terms of the (Prospective) Contract, and shall not duplicate, negate, or further interpret any provisions of this Contract. The terms of the (Prospective) Contract shall take precedence over the Supplemental Agreement.
- 2.14.6. Supplemental agreement that contradicts the Terms of the Contract in a cardinal manner may result in a determination that the Bid is not compliant with the terms of the IFB, and in rejection of the Bid.
- 2.14.7. Any supplemental agreements issued in final form by the government(s) resulting in an impossibility to perform the Contract in accordance with its schedule, terms or specifications, the Contract may be terminated by the Purchaser at no cost to either Party.

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

- 2.15.1. Bidders are instructed to review Clause 30 of the Prospective Contract General Provisions set forth under Part III of Book II herein. These Clauses set forth the definitions, terms and conditions regarding the rights of the Parties concerning Intellectual Property developed and/or delivered under the Prospective Contract or used as a basis of development under the Prospective Contract.
- 2.15.2. Bidders are required to disclose, in accordance with Annex B-12, the Intellectual Property proposed to be used by the Bidder that will be delivered with either Background Intellectual Property Rights or Third Party Intellectual Property Rights. Bidders are required to identify such Intellectual Property and the basis on which the claim of Background or Third Party Intellectual Property is made.
- 2.15.3. Bidders are further required to identify any restrictions on Purchaser use of the Intellectual Property that is not in accordance with the definitions and rights set forth in Clause 30 of Prospective Contract General Provisions, or any other provision of the Contract concerning use or dissemination of such Intellectual Property.
- 2.15.4. Bidders are reminded that restrictions on use or dissemination of Intellectual Property conflicting with Clause 30 or with the objectives and purposes of the Purchaser as stated in the Prospective Contract shall result in a determination of non-compliant bid.

2.16. Mandatory Quality Assurance and Quality Control Standards

- 2.16.1. Bidders are requested to note that, in accordance with the Certificate at Annex B-10 hereto, Bidders shall provide documentary evidence that the Bidder possesses a current certification that is compliant with the requirements of Allied Quality Assurance Publication (AQAP) 2110, ISO 9001:2015, or an equivalent QA/QC regime.
- 2.16.2. Bidders shall further demonstrate that such regime is applied within the Bidder's internal organisation, as well as extended to its relationships with Subcontractors
- 2.16.3. If the Bidder is offering a QA/QC regime that is claimed to be equivalent to AQAP 2110 or ISO 9001:2015, the burden of proof of such equivalency shall be on the Bidder and such evidence of equivalency shall be submitted with the Certificate at Annex B-10 in the Bid Administration Package.
- 2.16.4. Failure to execute this Certificate or failure to provide documentary evidence of compliance with this requirement may result in a determination of non-compliance for the submitted Bid.

SECTION 3 BID PREPARATION INSTRUCTIONS

3.1. General

- 3.1.1. Bids shall be prepared in accordance with the instructions set forth herein. Failure to comply with these instructions may result in the Bid being declared non-compliant and eliminated from further consideration.
- 3.1.2. Bidders shall prepare a complete bid which comprehensively addresses all requirements stated herein. The Bid shall demonstrate the Bidder's understanding of the IFB and its ability to provide all the deliverables and services listed in the Schedule of Supplies and Services. Bids, which are not complete, will be declared non-compliant.
- 3.1.3. The Bidder shall not restate the IFB requirements in confirmatory terms only. Bids shall provide the level of detail necessary for the Purchaser to make an objective assessment of what is being offered and whether such an offer meets the requirements of the prospective Contract. Bidders are advised that Bids that fail to provide such a level of detail or that address salient aspects of the IFB in a cursory manner may be declared non-compliant without recourse to further clarification.
- 3.1.4. Bidders shall prepare their bid in 3 parts in the following quantities:
 - (a) Bid Administrative Package (Part 1): Electronic Submission;
 - (b) Price Proposal Package (Part 2): Electronic Submission;
 - (c) Technical Proposal Package (Part 3): Electronic Submission.
- 3.1.5. Detailed requirements for the structure and content of each of these parts are contained in the following paragraphs of this Section.
- 3.1.6. If no specific format has been established for electronic versions in the Prospective Contract Statement of Work, Bidders shall deliver their bid in an electronic format which is best suited for review and maintenance by the Purchaser (MS Project, MS Excel, MS Word, PDF).
- 3.1.7. Bid documentation text, figures and tables shall be **readable and searchable**.
- 3.1.8. All documentation submitted as part of the Bid shall be classified no higher than "NATO UNCLASSIFIED".
- 3.1.9. Partial Bids and/or bids containing conditional statements or all-or-nothing bids will be declared non-compliant. Examples of conditional statements include conditioning the NLT Delivery Dates set by Prospective Contract SSS, imposing particular conditions to the pricing listed in the Bidding Sheets, Supplemental Agreements inconsistent with the terms of the Prospective Contract etc.

3.1.10. Bidders are advised that the Purchaser reserves the right to incorporate the successful Bidder's Offer in whole or in part in the resulting Contract.

3.1.11. All documentation submitted as part of the Bid shall be in the English language.

3.2. Packaging and Marking of Bids

3.2.1. The complete Bid shall consist of three distinct and separated parts each of which will be send as an individual electronic submission as described in the following subparagraphs. Detailed requirements for the structure and content of each of these packages are contained in these Bidding Instructions

3.2.2. All e-mails submitted shall be **less than 20MB** and shall **not be password-protected.**

Part	Format and Quantity Details
I: Bid Administrative Package	<p><u>1 .zip File Submitted by Email, which includes:</u></p> <ul style="list-style-type: none"> • 1 PDF File with scanned copies of the certificates with physical signatures or 1 PDF File with the original certificates digitally signed of the prescribed certifications; • 1 PDF File with the Copy of the Bid Guarantee. <p>✓ All of the required contents are outlined in Section 3.3</p>
II: Price Proposal Package	<p><u>1 .zip File Submitted by Email, which includes:</u></p> <ul style="list-style-type: none"> • 1 Excel file, using the Bidding Sheets template provided with the IFB; • 1 PDF file of the Bidding Sheets. <p>✓ All of the required contents are outlined in Section 3.4</p>
III: Technical Proposal Package	<p><u>1 .zip File Submitted by Email, which includes:</u></p> <ul style="list-style-type: none"> • Corporate experience in similar type of contracts • Bidder qualification and Key Personnel CVs and security clearances • Preliminary In Service Support Plan • Equipment Maintenance - PMI and documentation • Annex: Bid Requirements Cross Reference Matrix (BRCM): 1 Excel file <p>✓ If necessary, the technical volume may be separated into more than one email. Maximum email size per each email is 20MB.</p> <p>✓ All of the required contents are outlined in Section 3.5</p>

- 3.2.3. The proposal shall be sent via separate e-mails to the Bid Delivery e-mail address as specified in Paragraph 2.3.3 and in accordance with Paragraph 3.2.2 above.

3.3. Bid Administrative Package (Part 1)

- 3.3.1. The Bid Administrative Package must include the copy of the Bid Guarantee required by paragraph 2.11 of the Bidding Instructions sent to the email address specified in Paragraph 2.3.3. If the Bid Guarantee is sent to the Purchaser directly from the Bidder's bank, a letter, in lieu of the actual Guarantee, shall be included specifying the details of the transmittal and a copy of the Guarantee. Bidders are reminded that the Bid Guarantee shall reflect any extensions to the Bid Validity Date due to extensions in the Bid Closing Date.
- 3.3.2. No information disclosing or contributing to disclose the bid price shall be made part of the Bid Administration volume. Failure to abide to this prescription shall result in the bid being declared non-compliant.
- 3.3.3. The Administrative Package shall include the certificates set forth in the ANNEX B – PRESCRIBED ADMINISTRATIVE FORMS AND CERTIFICATES to these Bidding Instructions, signed in the original by an authorised representative of the Bidder. **The text of the certificates must not be altered in any way.** Within the Package the bidder shall also include the signed electronic copies of the certifications – with physical/ electronic signatures - set forth in Annex B hereto, specifically:
- 3.3.3.1. Certificate of Legal Name of Bidder (**Annex B-1**)
 - 3.3.3.2. Acknowledgement of Receipt of IFB Amendments (**Annex B-2**)
 - 3.3.3.3. Certificate of Independent Determination (**Annex B-3**)
 - 3.3.3.4. Certificate of Bid Validity (**Annex B-4**)
 - 3.3.3.5. Certificate of Exclusion of Taxes, Duties and Charges (**Annex B-5**)
 - 3.3.3.6. Comprehension and Acceptance of Contract Special and General Provisions (**Annex B-6**)
 - 3.3.3.7. Disclosure of Requirements for NCI Agency Execution of Supplemental Agreements (**Annex B-7**)
In accordance with Par. 2.14, the Bidder shall attach to the Certificate a prospective text of such Agreements, as applicable.
With this Certificate Bidders are required to disclose any prospective Supplemental Agreements that are required by national governments to be executed by NATO/NCI Agency as a condition of Contract performance. Supplemental Agreements are typically associated with, but not necessarily limited to, national export control regulations, technology transfer restrictions, Technical Assistance Agreements, and end user agreements or undertakings. Bidders are cautioned that failure to provide full disclosure of the anticipated requirements and the terms thereof, to the best of the Bidder's knowledge and experience, may result in the Purchaser withholding

award of the Contract or cancelling an executed Contract if it is discovered that the terms of such Supplemental Agreements contradict salient conditions of the Prospective Contract to the extent that either key objectives cannot be accomplished or basic Contract principles and Purchaser rights have been abridged. The terms of supplemental agreements, if necessary, are the Bidders / Contractors responsibility and shall be totally consistent with the terms of the (Prospective) Contract, and shall not duplicate, negate, or further interpret any provisions of this Contract. The terms of the (Prospective) Contract shall take precedence over the Supplemental Agreement.

3.3.3.8. List of Prospective Subcontractors (**Annex B-8**)

Bidders shall identify by name, project role, and country of origin all significant sub-contractors whose estimated **value of the subcontract is expected to equal or exceed EUR 100,000. If there are no sub-contractors involved, the Bidder shall state this separately. The subcontractors listed in this certificate shall be traceable in the Bidding Sheets.**

Bidders are reminded that as per Prospective Contract General Provisions Clause 9, none of the work shall be performed other than by firms from and within **NATO Participating Countries.**

3.3.3.9. Certificate of Origin of Equipment, Services, and Intellectual Property (**Annex B-9**)

Bidders are reminded that as per Prospective Contract General Provisions Clause 9, no material or items of equipment down to and including identifiable Sub-Assemblies shall be manufactured or assembled by firms other than from and within **NATO Participating Countries.**

3.3.3.10. Certificate of Compliance with AQAP 2110, ISO 9001 or equivalent standards (**Annex B-10**)

The Bidder shall attach to the Certificate a copy of the company's AQAP 2110 or ISO 9001 Certification.

3.3.3.11. List of Key Personnel (including Subcontractor Personnel) (**Annex B-11**)

The list shall be in line with SOW Section 3 requirements.

3.3.3.12. List of Bidder, Subcontractor and Third Party Background IPR (**Annex B-12**)

3.3.3.13. Disclosure of Involvement of Former NCI Agency Employment (**Annex B-13**)

3.4. Price Proposal Package (Part 2)

- 3.4.1. The Price Proposal Package shall be prepared and submitted in the form of completed Bidding Sheets in accordance with Section 3 and ANNEX A – BIDDING SHEETS of these instructions. No alteration of the form and pre-filled content of the Bidding Sheets is allowed, unless otherwise specified. The prices entered shall reflect the amount of the total items required to meet the contractual requirements.

- 3.4.2. The Price Proposal Package must be submitted by email as a one (1) ZIP file, containing the following documentation provided in paragraph 3.1.4 and 3.2.2. above:
- 3.4.2.1. Scanned signed copy of the Annex A-3 Contractor Pricing Summary;
 - 3.4.2.2. Completed Bidding Sheets (Excel) provided in Annex A-2 of Book I including the following: CLIN Summary tab (the Schedule of Supplies and Services, including the Optional CLINs), as well as Offer Summary tab, Labour, Material, Travel and ODC (Other Direct Costs) Price Breakdown Bidding tab, and the Rates tab.
 - 3.4.2.3. One (1) PDF of the Bidding Sheets under Annex A-2 of Book I;
- 3.4.3. Bidders shall prepare their Price Proposal by completing the yellow highlighted sections of the Bidding Sheets referred in paragraph 3.4.2.2 above, in accordance with the instructions specified in Annex A-1 and the Bidding Sheets of Book I.
- 3.4.4. The structure of the Bidding Sheets shall not be changed, other than as indicated elsewhere, nor should any quantity or item description in the Bidding Sheets. The currency(ies) of each Contract Line Item and sub-item shall be shown. The prices provided shall be intended as the comprehensive total price offered for the fulfilment of all requirements as expressed in the IFB documentation including but not limited to those expressed in the SOW.
- 3.4.5. Bidders shall furnish Firm Fixed Prices and Not-To-Exceed ceiling prices (where applicable) for all required items in accordance with the format set forth in the Instructions for preparation of the Bidding Sheets (Annex A-1). This includes Firm Fixed Prices and Not-To-Exceed ceiling prices (where applicable) for all Base and optional years/ CLINs. Prices cannot be embedded/ included in other prices. Not having provided a price for all items as required per the Bidding Sheets, i.e. to fill out all yellow fields, may render the bid non-compliant.
- 3.4.6. Offered prices shall not be "conditional" in nature. Any comments supplied in the Bidding Sheets which are conditional in nature, relative to the offered prices, may result in a determination that the Bid is non-compliant.
- 3.4.7. Bidders are responsible for the accuracy of their Price Proposals. Price Proposals that have apparent computational errors may have such errors resolved in the Purchaser's favour or, in the case of gross omissions, inconsistencies or errors, may be determined to be non-compliant. In the case of inconsistencies between the Excel version of the Bidding Sheets and the PDF version of the Bidding Sheets, the PDF version will be considered by the Purchaser to have precedence over the Excel version.
- 3.4.8. Bidders shall quote in their own national currency or in EURO. Bidders may also submit bids in multiple currencies including other NATO member states' currencies under the following conditions:
- 3.4.8.1. The currency is of a "participating country" in the project, and

- 3.4.8.2. The Bidder can demonstrate, either through sub-Contract arrangements or in its proposed work methodology, that it will have equivalent expenses in that currency.
- 3.4.9. All major subcontracts and their approximate anticipated value should be listed on a separate sheet and included with the Price Proposal. **Certificate Annex B-8 shall be consistent with Price Proposal Package.**
- 3.4.10. The Purchaser, by virtue of its status under the terms of Article IX and X of the Ottawa Agreement, is exempt from all direct and indirect taxes (incl. VAT) and all customs duties on merchandise imported or exported.
- 3.4.11. Bidders shall therefore exclude from their Price Proposal all taxes, duties and customs charges from which the Purchaser is exempted by international agreement and are required to certify that they have done so through execution of the Certificate at Annex B-5. The Contractor shall be responsible for ensuring that its respective Sub-Contractors are aware that the Purchaser is exempt from taxes and customs duties. The Contractor (and its 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.
- 3.4.12. Unless otherwise specified in the instructions for the preparation of Bidding Sheets in Annex A-1, all prices quoted in the proposal shall be on the basis that all deliverable items shall be delivered to specified destination "Delivery Duty Paid (DDP)", in accordance with the International Chamber of Commerce INCOTERMS ® 2020, and shall also cover all packaging, packing, preservation, insurance and transportation charges. Prices quoted shall include all costs for items supplied and delivered to final destination.
- 3.4.13. The Bidder's attention is directed to the fact that the Price Proposal shall contain no document and/or information other than the priced copies of the Bidding Sheets. Any other document will not be considered for evaluation.
- 3.4.14. When completing the Bidding Sheets, a unit price and total fixed price for each specified element needs to be supplied on each CLIN line item. Bidders are required to insert price information in all cells marked in yellow in the Bidding Sheets. Prices should not be grouped. The prices and quantities entered on the document shall reflect the total items required to meet the contractual requirements. The total price shall be indicated in the appropriate columns and in the currency quoted. If the price of a line item is expressed in different currencies, these shall be identified, and there shall be as many totals on that line item as there are currencies. In preparing the Price Proposal, Bidders shall ensure that the prices of the Sub-items total the price of the major item of which they constitute a part. The accuracy of the inputs of the Bidding Sheets is the responsibility of the Bidder. The Purchaser in its favour may resolve ambiguous computation of prices.
- 3.4.15. Any adjustment or discount to prices should be clearly traceable to the lowest level of break down in the bidding sheets and should not be aggregated or summed. Any lack of clarity or traceability may render the Bid non compliant.

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

3.5. Technical Proposal Package

- 3.5.1. Bidders shall submit their Technical Proposal in accordance to paragraph 3.2.2 an electronic package with separate documents in PDF or MS Office formats as required, containing all the information addressing the technical specifications and requirements of the stated in paragraphs 3.5.4 – 3.5.9. The Technical Proposal shall have a confirmation that all requirements in the SOW, are included in the proposed solution.
- 3.5.2. Times New Roman” fonts in size 10 or 12 shall be used for normal text, and “Arial Narrow” fonts not smaller than size 10 for tables and graphics.
- 3.5.3. The Technical Proposal package shall include the following:
- 3.5.4. Table of Contents. Bidders shall compile a detailed Table of Contents which lists not only section heading but also major sub-sections, and topic heading required set forth in these instructions or implicit in the organization of the Technical Proposal.
- 3.5.5. Section 1: Technical Proposal Cross-Reference/ Compliance Table
- 3.5.5.1. The Bidder shall include the completed Technical Proposal Cross-Reference Table from Annex C of Book I.
- 3.5.5.2. The Bidder shall complete Column 6 of the Table, citing the appropriate section of the Technical Proposal that corresponds to each paragraph of these Instructions for the Preparation of the Technical Proposal. The completed Table serves as an index for the Purchaser's Technical Evaluation Panel and also as an aide memoire to the Bidder to ensure that all the required information has been provided in the Technical Proposal.
- 3.5.6. Section 2: Corporate experience in similar type of contracts
- 3.5.6.1. The Bidder shall describe their experience in similar type of contracts/ support in the past 5 years and include their corporate organization.
- 3.5.6.2. The Bidder shall provide at least one (1) executive summary describing the successful delivery of a similar project in a similar environment during the last five (5) years. For each project, the Contractor shall describe:
- a) The domain or area (ideally the customer name), the size (contract value range), duration and challenges encountered with remediation;
 - b) The scope of work, demonstrating its capability to integrate technologies similar to provide preventive maintenance support for complex deployable/ transportable satellite communication systems

- 3.5.6.3. The Bidder shall provide an Overview, which shall provide an executive summary overview of the offered capability. The Overview shall also summarize the main features of each of the sections of the Technical Proposal and shall indicate in broad detail how the service will be executed during the contract. Overall understanding of the objectives/ scope/ requirements of the ISS TSGT project.
- 3.5.7. Section 3: Bidder qualification and Key Personnel CVs and security clearances
- 3.5.7.1. The Bidder shall provide Curriculum Vitae (CV) for the key personnel proposed for this project listed in the SOW with the job descriptions as per Appendix F Key Personnel Requirements, of the SOW:
- a) ISS Manager
 - b) Project Manager
 - c) Technician x three (3)
- 3.5.7.2. The Bidder shall provide a narrative describing the rationale for the selection of these individuals for these posts and provide detailed descriptions of the relevant experience of the individuals and security clearance information. This section shall also describe the authority and responsibility (and the limits) of the ISS Manager within the overall corporate organization, including the circumstances at which the ISS Manager must refer decision making authority to the next level of Corporate management.
- 3.5.8. Section 4: In-Service Support Plan (ISSP)
- 3.5.8.1. The Bidder shall submit a preliminary In-Service Support Plan (ISSP) in accordance with the requirements of Section 3 of the SOW (Book II Part IV).
- 3.5.8.2. The In-Service Support Plan (ISSP) shall include:
- a) a description of the Contractor's ISS organization;
 - b) a description of how the Contractor will interface with the Purchaser, including pertinent communication channels, points of contact and contact details;
 - c) a description of the repair and return process including shipping addresses and points of contact;
 - d) information on how to access the Contractor's collaboration space or file share.
- 3.5.9. Section 5: Equipment Maintenance - PMI and documentation
- 3.5.9.1. The bidder shall describe how they plan to run the contract with regard to the documentation and PMIs in order for the Purchaser to understand the Bidder's approach to delivering PMIs and documentation. PMI report structure is included at Appendix E of the SOW.
- 3.5.9.2. Additional materials such as brochures, sales literature, product endorsements and unrelated technical or descriptive narratives shall not be included in the Technical Proposal.

SECTION 4 BID EVALUATION

4.1. General

- 4.1.1. The evaluation of Bids will be made by the Purchaser solely on the basis of the requirements specified in this IFB.
- 4.1.2. The administrative compliance of the Bids will be evaluated first. Bids that are declared administratively non-compliant may be rejected without further evaluation. Following evaluation for administrative compliance, evaluation will be carried out in the following two areas: Part 2 - Price, Part 3 - Technical.
- 4.1.3. All administratively compliant Bids will be reviewed for price compliancy. The Contract resulting from this IFB will be awarded to the Bidder(s) whose offer, as evaluated by the Purchaser, is the lowest priced bid and in compliance with the requirements of this IFB. The information provided shall be to a level of detail necessary for the Purchaser to determine exactly what the Bidder proposes to furnish and whether the offer meets the technical, administrative and contractual requirements of this IFB. The Bidder shall not restate the IFB requirements in confirmatory terms only. The Bidder must clearly describe what is being offered and how the Bidder will meet all IFB requirements.
- 4.1.4. The evaluation of Bids will be based only on that information furnished by the Bidder and contained in its Bid. The Purchaser shall not be responsible for locating or securing any information that is not identified in the Bid.
- 4.1.5. The Bidder shall furnish with its Bid all information requested by the Purchaser in Book I, Section 3, Bid Preparation Instructions. Significant omissions and/or cursory submissions may result in a determination of non-compliance without recourse to further clarification. The information provided by the Bidder in its proposal shall be to a level of detail necessary for the Purchaser to determine exactly what the Bidder proposes to furnish and whether the offer meets the technical, administrative and contractual requirements of this IFB.
- 4.1.6. During the evaluation, the Purchaser may request clarification of the Bid from the Bidder and the Bidder shall provide sufficient detailed information in connection with such requests as to permit the Purchaser to make a final assessment of the Bid based upon the facts. The purpose of such clarifications will be to resolve ambiguities in the Bid and to permit the Bidder to state its intentions regarding certain statements contained therein. The purpose of the clarification stage is not to elicit additional information from the Bidder that was not contained in the original submission or to allow the Bidder to supplement cursory answers or omitted aspects of the Bid. The Bidder is not permitted any cardinal alteration of the Bid regarding technical matters and shall not make any change to the price proposal at any time.
- 4.1.7. The Purchaser reserves the right, during the evaluation and selection process, to verify any statements made concerning experience, facilities, or existing designs or materials by making a physical inspection of the Bidder's facilities and capital assets and by interviewing proposed Key Personnel.

This includes the right to validate, by physical inspection, the facilities and assets of proposed Subcontractors.

- 4.1.8. The Contract(s) resulting from this IFB will be awarded to the Bidder whose offer, as evaluated by the Purchaser, is the lowest priced Bid in compliance with the requirements of this IFB. The evaluation will be conducted in accordance with NATO Procedures. Evaluation of this IFB will be conducted in accordance with the "One Envelope" procedure in which only the Technical Proposal of the lowest priced Bid is evaluated for compliance with the requirements of the IFB. The Bidder who has offered the lowest priced, technically compliant Bid will then be offered the Contract for award.
- 4.1.9. Failure to satisfy any of the bidding requirements may result in a determination of non-compliance for the entire Bid.

4.2. Administrative Criteria

- 4.2.1. Prior to opening the Price Proposal envelopes, Bids will be reviewed for compliance with the Bid Submission Requirements of this IFB. These are as follows:
- 1) The Bid was received by the Bid Closing Date and Time (Para 2.3);
 - 2) The Bid was packaged and marked properly (Para 3.2);
 - 3) The Bidder has submitted a Bid Guarantee in the required form, in the required amount and for the required validity (Para 2.11).
 - 4) The Bidder has submitted originally/ electronically signed copies of the required Certificates in ANNEX B – PRESCRIBED ADMINISTRATIVE FORMS AND CERTIFICATES hereto (Para 3.3). The text of the certificates was not altered in any way, and the certificates contain the required attachments.
- 4.2.2. A Bid that fails to conform to the above requirements may be declared non-compliant and may not be evaluated further by the Purchaser.
- 4.2.3. If it is discovered, during either the Technical or Price evaluation, that the Bidder has taken exception to the Terms and Conditions of the Prospective Contract, or has qualified and/or otherwise conditioned its offer on a modification or alteration of the Terms and Conditions or the language of the Statement of Work, the Bidder may be determined to have submitted a non-compliant Bid.

4.3. Price Criteria

- 4.3.1. After the review of the Bid Submission Requirements of this IFB, the Bidder's Price Proposal will be assessed for compliance against the following standards:
- 4.3.1.1. The Price Proposal meets the requirements for preparation and submission of the Price Proposal set forth in the Bid Preparation Section (Book I, Section 3) and the Instructions for Preparation of Bidding Sheets (Annex A-1 hereto), in particular:

- 1) The Price Proposal is prepared and submitted in the form and quantities required under Para. 3.4.
 - 2) Price Bid has been prepared by completing the yellow highlighted sections of the Bidding Sheets.
- 4.3.1.2. The Price Proposal meets the requirements for adequacy, accuracy, traceability and completeness of detailed pricing information, in particular:
- 1) The Bidder has furnished Firm Fixed Prices and Not-To-Exceed ceiling prices (where applicable) for all items listed as required under Para. 3.4.5.
 - 2) All pricing data, i.e., quantities, unit prices, has been provided as reflected in the Bidding Sheets.
 - 3) Bid prices include all costs for items supplied, delivered, and supported.
 - 4) All prices have been accurately entered into appropriate columns, and accurately totalled.
 - 5) The Bidder has provided accurate unit price (where required) and total price for each line item and sub-item (if any). The prices of the sub-items (if any) total the price of the major item of which they constitute a part.
 - 6) The Bidder has provided accurate unit price and total price of each of the sub-items it added (if any).
 - 7) The totals per CLIN and the bid grand total are accurate.
 - 8) The currency of all line items has been clearly indicated. Line items with multiple currencies contain as many totals on that line item as there are identified currencies.
 - 9) The Bidder has quoted in its own national currency or in the Host Nation currency, Euros. Where multiple currencies including other NATO member states' currencies are quoted, the conditions of Section 3, paragraph 3.4.9 are met.
 - 10) The Bidder has indicated that in accordance with the treaties governing the terms of business with NATO, it excluded from its prices all taxes, duties and customs charges from which the Purchaser has been exempted.
 - 11) Price quotes for each individual item(s), and totalled prices are accurate and realistic (based on historic data, and/or market and competitive trends in the specified industrial sector(s)).
 - 12) Detailed pricing information has been provided and is adequate, traceable, and complete.
- 4.3.1.3. The Price Proposal meets requirements for price realism and balance as described below in paragraph 4.3.4.
- 4.3.1.4. The Price Proposal does not contain any comments which are conditional in nature, relative to the offered prices.

- 4.3.2. A bid which fails to meet the compliance standards defined in this section may be declared non-compliant and may not be evaluated further by the Purchaser.
- 4.3.3. **Determination of Lowest Firm Fixed Price**
- 4.3.3.1. General: In order to determine the lowest offered price the Purchaser will convert all prices quoted into Euros for purposes of comparison. The exchange rate to be utilised by the Purchaser will be the average of the official buying and selling rates of the "European Central Bank" at close of business on the last working day preceding the Bid Closing Date.
- 4.3.3.2. **Basis of Price Comparison:** The Purchaser will convert all prices quoted into EURO for purposes of comparison and computation of price scores. The exchange rate to be utilised by the Purchaser will be the average of the official buying and selling rates of the European Central Bank at close of business on the last working day preceding the Bid Closing Date. The price comparison will be based on the offered Grand Total, which includes all CLINs (base and optional evaluated years) in the Bidding Sheets.
- 4.3.3.3. The Price evaluation will be based on the summation of CLINs and Optional CLINs marked as 'Evaluated' in the Bidding Sheets. The price for each CLIN will be based on the notional quantity loading multiplied by the unit prices provided by the Bidder. The non-evaluated option in scenario I is not part of the evaluation.
- 4.3.3.4. Bidders should note that the quantities indicated in the Bidding Sheets are for the purpose of evaluation only and do not represent a firm commitment of the Purchaser to order the stated quantities.
- 4.3.4. **Price Realism**
- 4.3.4.1. In the event that the successful Bidder has submitted a price proposal that is less than two-thirds of the average of the remaining Bids compliant with administrative and price evaluation criteria, the Host Nation must ensure that the successful Bidder has not artificially reduced the offered price to assure Contract award.
- 4.3.4.2. Indicators of an unrealistically low bid may be the following, amongst others:
- a) Labour Costs that, when amortised over the expected or proposed direct labour hours, indicate average labour rates far below those prevailing in the Bidders locality for the types of labour proposed;
 - b) Direct Material costs that are considered to be too low for the amounts and types of material proposed, based on prevailing market prices for such material;
 - c) Numerous Line Item prices for supplies and services that are provided at no cost or at nominal prices.
- 4.3.4.3. As such, the Purchaser will request the Bidder to provide clarification of the Bid and will inform the national delegation of the Bidder. In this regard, the Bidder shall provide an explanation to both the Purchaser and their national delegation on the basis of one of the reasons as described in paragraph 4.3.4.4 below.

- 4.3.4.4. If the Purchaser has reason to suspect that a Bidder has artificially debased its prices in order to secure Contract award, the Purchaser will request clarification of the Bid in this regard and the Bidder shall provide explanation on one of the following basis:
- 1) An error was made in the preparation of the Price Proposal. In such a case, the Bidder must document the nature of the error and show background documentation concerning the preparation of the Price Proposal that makes a convincing case that a mistake was made by the Bidder. In such a case, the Bidder shall petition the Purchaser to either:
 - a. remain in the competition and accept the Contract at the offered price, or
 - b. to withdraw from the competition.
 - 2) The Bidder has a competitive advantage due to prior experience or industrial/technological processes that demonstrably reduce the costs of the Bidder's performance and therefore the price offered is realistic. Such an argument must support the technical proposal offered and convincingly and objectively describe the competitive advantage and the net savings achieved by this advantage over standard market practices and technology.
 - 3) The Bidder recognises that the submitted Price Proposal is unrealistically low compared to its cost of performance and, for business reasons, the Bidder is willing to absorb such a loss. Such a statement can only be made by the head of the business unit submitting the Bid and will normally be made at the level of Chief Operating Officer or Chief Executive Officer. In such a case, the Bidder shall estimate the potential loss and show that the financial resources of the Bidder are adequate to withstand such reduction in revenue.
- 4.3.4.5. If a Bidder fails to submit a comprehensive and compelling response on one of the bases above, the Purchaser may determine the Bid submitted as non-compliant.
- 4.3.4.6. If the Bidder responds on the basis of paragraph 4.3.4.4 subparagraph 1) above and requests to withdraw from the competition, the Purchaser may, depending on the nature and gravity of the mistake, allow the Bidder to withdraw with or without penalty in terms of drawing on the Bid Guarantee.
- 4.3.4.7. If the Purchaser accepts the Bidder's explanation of mistake in paragraph 4.3.4.4, subparagraph 1) and allows the Bidder to accept the Contract at the offered price, or the Purchaser accepts the Bidder's explanation pursuant to paragraph 4.3.4.4 subparagraph 3) above, the Bidder shall agree that the supporting pricing data submitted with the Bid will be incorporated by reference in the resultant Contract. The Bidder shall agree as a condition of Contract signature, that the pricing data will be the basis of determining fair and reasonable pricing for all subsequent negotiations for modifications of or additions to the Contract and that no revisions of proposed prices will be made.
- 4.3.4.8. If the Bidder presents a convincing rationale pursuant to paragraph 4.3.4.4 subparagraph 2) above, no additional action will be warranted. The Purchaser, however, reserves its right to reject such an argument if the rationale is not

compelling or capable of objective analysis. In such a case the Bid may be determined to be non-compliant.

4.4. Technical Criteria

- 4.4.1. Upon determination of the lowest-priced Bid as described above, the Bid shall be evaluated to confirm compliance with the criteria associated with the respective sections of the Technical Proposal.
- 4.4.2. Technical Proposal
 - 4.4.2.1. The Bidder shall have provided a Technical Proposal which includes all of information required in paragraph 3.5.
- 4.4.3. Table of Contents
 - 4.4.3.1. The Bidder shall have provided a Table of Contents as required by Paragraph 3.5.4.
- 4.4.4. Section 1: Technical Proposal Cross Reference Matrix Table
 - 4.4.4.1. The Bidder shall have included a completed Technical Proposal Cross Reference Matrix Table as per Book I Annex C Cross Reference/Compliance Table.
- 4.4.5. Section 2: Corporate experience in similar type of contracts
 - 4.4.5.1. The bidder shall have provided a description of their experience in similar type of contracts/support in the past 5 years and include their corporate organization
 - 4.4.5.2. The Bidder shall have provided at least one (1) example of successfully delivering a similar requirement in a similar environment in the last five (5) years.
 - 4.4.5.3. The Bidder shall have provided the Overview, which shall provide an executive summary overview of the offered capability. The Overview shall also summarise the main features of each of the sections of the Technical Proposal and shall indicate in broad detail how the service will be executed during the contract.
- 4.4.6. Section 3: Bidder qualification and Key Personnel CVs and security clearances
 - 4.4.6.1. The Bidder shall have provided a Curriculum Vitae (CV) for the key personnel proposed for this project listed in the SOW with the job descriptions as per Appendix F:
 - a) ISS Manager
 - b) Project Manager
 - c) 3 (three) Technicians;
 - 4.4.6.2. The Bidder shall have provided a narrative describing the rationale for the selection of the key posts and have provided detailed descriptions of the

experience of the individuals in managing similar services. This section shall have described the authority and responsibility (and the limits) of the ISS Manager within the overall corporate organisation. The narrative must confirm that the ISS Manager has access to the corporate resources required to successfully perform the Contract.

4.4.7. Section 4: In-Service Support Plan (ISSP)

4.4.7.1. The Bidder shall have submitted a preliminary In-Service Support Plan (ISSP) in accordance with the requirements of Section 3 of the SOW (Book II Part IV).

4.4.7.2. The preliminary In-Service Support Plan (ISSP) shall have included:

- a) a description of the Contractor's ISS organization;
- b) a description of how the Contractor will interface with the Purchaser, including pertinent communication channels, points of contact and contact details;
- c) a description of the repair and return process including shipping addresses and points of contact;
- d) information on how to access the Contractor's collaboration space or file share.

4.4.8. Section 5: Equipment Maintenance - PMI and documentation

4.4.8.1. The Bidder shall have provided a description of how they plan to run the contract with regard to the documentation and PMIs in order for the Purchaser to understand the Bidder's approach to delivering PMIs and documentation. PMI report structure is included at Appendix E of the SOW

ANNEX A – BIDDING SHEETS

Annex A-1: Instructions for the Preparation of the Bidding Sheets

Annex A-2: Bidding Sheets

Annex A-3: Contractor Pricing Summary

Annex A-1. Instructions for the Preparation of the Bidding Sheets**1. INTRODUCTION**

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

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

2. GENERAL REQUIREMENTS

Bidders are required, in preparing their Price Proposal to utilize the Bidding Sheets following the instructions detailed in SECTION 3 – Bid Preparation Instructions, Paragraph 3.4 Price Proposal Package and hereunder.

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

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

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

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

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

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

Prices shall not include any provision for taxes or duties for which the Purchaser is exempt.

3. INSTRUCTIONS FOR COMPLETION OF BIDDING SHEETS

A. COMPLETING SECTION 1 (Offer Summary Sheets)

Section 1 corresponds to the Schedule of Supplies and Services of the Prospective Contract. The Contract is represented by a detailed schedule showing the CLINs included within the scope of Contract and a detailed cost breakdown (detailed Bidding sheet tabs).

B. COMPLETING SECTION 2 (CLIN Summary Sheets)

Section 2 corresponds to the Schedule of Supplies and Services of the Prospective Contract.

B.1 Filling the CLIN Summary Sheets

Bidders shall fill in the CLIN summary sheets ("CLIN Summary 2 Base + 3 Option (1+1+1)") based on the information provided in the detailed Bidding Sheets (tabs referring to Labour, Material, Travel, ODC, and Rates). The detailed Bidding Sheets are broken down in to the categories listed in Section C. Bidders are expected to aggregate the prices in the detailed Bidding Sheets that make up the line items in the CLIN Summary Sheets. The line items in the CLIN Summary Sheets shall be all INCLUSIVE of the price being bid in order to fulfil the requirement for the line items in the CLIN Summary Sheets. Bidders shall make sure that the total price indicated in the detailed Bidding Sheet of each Scenario (tabs referring to Labour, Material, Travel, ODC, and Rates) matches the price stated in the CLIN Summary Sheet for the same corresponding CLIN or sub-CLIN. The Grand total on the CLIN Summary Sheets must be traceable to the Offer Summary Sheets.

C. COMPLETING SECTION 3 (CLIN Detailed Sheets: Labour, Material, Travel, ODC, Rates)

Bidders are instructed to prepare their cost proposals in sufficient detail to permit thorough and complete evaluation. For each of the Scenarios, the Bidder shall use the separate Sheets as provided. Change the currency (drop down) in the dedicated column of the CLIN Detailed Sheets for each sub-CLIN.

C.1 LABOUR

Show the hourly rate by year and the total hours for the categories and disciplines of direct labour proposed. Profit shall be added on top of labour extended cost and expat allowance (if applicable), to derive fully burdened cost.

C.2 SERVICES

Show the monthly services rate by year. Profit shall be added on top of extended cost to derive fully burdened cost. Identify the main cost drivers and their percentage contribution to the extended cost.

C.3 TRAVEL

Show the number of travels, people, days per trip, cost per roundtrip, and per diem. Profit shall be added on top of extended cost to derive total cost.

C.4 ODC

Show detailed information related to other direct costs. Profit shall be added on top of extended cost to derive total cost.

C.5 RATES

Show the rates for overhead, fringe, General and Administrative (G&A), profit, and other rates used (if applicable).

D. GRAND TOTAL

This is the Bidders final Firm Fixed Price and Not-To-Exceed ceiling price (where applicable) total for the identified CLIN or sub-CLIN and should match the price entered in the corresponding CLIN Summary Sheets in Section 2 of the Bidding Sheets.

E. SPECIAL INSTRUCTIONS

All CLINs and Optional CLINs shall be priced at the lowest sub-CLIN level and rolled up to the next highest sub-CLIN or CLIN level.

CLINs marked as "NSP" are not separately priced. The price for these CLINs and sub-CLINs are expected to be included in the price for the other services.

Annex A-2. Bidding Sheets

The Bidding Sheets are contained in the separate MS Excel file titled:
“*IFB-CO-115401-TSGT-ISS-Bidding-Sheets.xls*” submitted as part of this IFB.

Annex A-3. Contractor Pricing Summary

On behalf of the firm stated below I hereby offer the Purchaser the services and deliverables (collectively referred as "ITEMS") set forth in the attached schedules¹, at the specified prices, and subject to the terms and conditions stated in IFB-CO-115401-TSGT-ISS.

Date

Signature of Authorised Representative

Printed Name

Title

Company

¹ Bidders must fill out and sign this Annex

ANNEX B – PRESCRIBED ADMINISTRATIVE FORMS AND CERTIFICATES

Annex B-1 Certificate of Legal Name of Bidder

Annex B-2 Acknowledgement of Receipt of IFB Amendments

Annex B-3 Certificate of Independent Determination

Annex B-4 Certificate of Bid Validity

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

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

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

Annex B-8 List of Prospective Subcontractors

Annex B-9 Certificate of Origin of Equipment, Services, and Intellectual Property

Annex B-10 Certificate of Compliance with AQAP 2110, ISO 9001 or equivalent standards

Annex B-11 List of Key Personnel (including Subcontractor Personnel)

Annex B-12 List of Bidder, Subcontractor and Third Party Background IPR

Annex B-13 Disclosure of Involvement of Former NCI Agency Employment

Annex B

Annex B-1. Certificate of Legal Name of Bidder

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

FULL NAME OF CORPORATION: _____

DIVISION (IF APPLICABLE): _____

SUB DIVISION (IF APPLICABLE): _____

OFFICIAL MAILING ADDRESS:

E-MAIL ADDRESS: _____

BOA N° (IF AVAILABLE): _____

POINT OF CONTACT REGARDING THIS BID:

NAME: _____

POSITION: _____

TELEPHONE: _____

E-MAIL ADDRESS: _____

ALTERNATIVE POINT OF CONTACT:

NAME: _____

POSITION: _____

TELEPHONE: _____

E-MAIL ADDRESS: _____

I hereby declare that the Bidder is a [please state whether National Public or Commercial] telecommunication operator incorporated in one of the NATO Member Nations and which complies with the national and EU (where applicable) regulatory framework. The Bidder holds the relevant licences and authorisations to operate the services in the required territories.

Date

Signature of Authorised Representative

Printed Name

Title

Company

Annex B-2. Acknowledgement of Receipt of IFB Amendments

I confirm that the following amendments to Invitation for Bid IFB-CO-115401-TSGT-ISS have been received and the Bid, as submitted, reflects the content of such amendments.

Amendment no.	Date of Issue by the Purchaser	Date of Receipt by the Bidder

Date

Signature of Authorised Representative

Printed Name

Title

Company

Annex B-3. Certificate of Independent Determination

It is hereby stated that:

a. We have read and fully understand all documentation issued as part of Invitation for Bid IFB-CO-115401-TSGT-ISS. Our Bid submitted in response to the referred solicitation is fully compliant with the provisions of the IFB and the prospective Contract. I also certify to the best of my expert knowledge that this Bid is within the "state of art" boundaries as they exist at the time of bidding for this project.

b. Our Bid has been arrived at independently, without consultation, communication or agreement, for the purpose of restricting competition, with any other Bidder or with any competitor;

c. The contents of our Bid have not been knowingly disclosed by the Bidder and will not knowingly be disclosed by the Bidder prior to award, directly or indirectly to any other Bidder or to any competitor*; and

d. No attempt has been made, or will be made by the Bidder to induce any other person or firm to submit, or not to submit, a Bid for the purpose of restricting competition.

Each person signing this Bid shall also certify that:

- (1) (S)he is the person in the Bidder's organisation responsible within that organisation for the decision as to the Bid and that (s)he has not participated and will not participate in any action contrary to b. through d. above, or
- (2) (i) (S)he is not the person in the Bidder's organisation responsible within that organisation for the Bid but that (s)he has been authorised in writing to act as agent for the persons responsible for such a decision in certifying that such persons have not participated, and will not participate in any action contrary to b. through d. above, and as their agent does hereby so certify, and
(ii) (S)he has not participated and will not participate in any action contrary to b. through d. above.

Date

Signature of Authorised Representative

Printed Name

Title

Company

* If the Bidder deletes or modifies subparagraph (c) of this Annex, the Bidder must furnish with its Offer a signed statement setting forth in detail the circumstances of the disclosure.

Annex B-4. Certificate of Bid Validity

I, the undersigned, as an authorised representative of the firm submitting this Bid, do hereby certify that the pricing and all other aspects of our Bid will remain valid for a period of twelve (12) months from the Bid Closing Date of this Invitation for Bid.

Date

Signature of Authorised Representative

Printed Name

Title

Company

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

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

The Bidder hereby provides its confirmation that it fully comprehends the rights, obligations and responsibilities of the Contractor as set forth in the Clause 26 'Taxes and Duties' of the Prospective Contract General Provisions.

Date

Signature of Authorised Representative

Printed Name

Title

Company

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

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

We understand that partial bids and/or bids containing conditional statements², or all-or-nothing bids will be declared by the Purchaser as non-compliant.

Date

Signature of Authorised Representative

Printed Name

Title

Company

² Examples of conditional statements include conditioning the NLT Delivery Dates set by Prospective Contract SSS, imposing particular conditions to the pricing listed in the Bidding Sheets, Supplemental Agreements inconsistent with the terms of the Prospective Contract etc.

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

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

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

These supplemental agreements are listed as follows:
(insert list of supplemental agreements or specify “none”)

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

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

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

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

Date

Signature of Authorised Representative

Printed Name

Title

Company

Annex B-8. List of Prospective Subcontractors

Name and Address of Sub-Contractor ³	Sub-Contractor's Country of origin/registration	Primary Location of Work	Items/Services to be Provided (reference to SSS CLIN n°)	Estimated Value of Sub-Contract

If no sub-Contractors are involved, state this here:

The Bidder hereby certifies that, if awarded the Contract pursuant to this solicitation, none of the work, including project design, labour and services, shall be performed other than by firms from and within an eligible **NATO Participating Country**, as required by the Prospective Contract General Provisions Clause 9.

Date

Signature of Authorised Representative

Printed Name

Title

Company

³ Definition of Sub-Contractor is provided under Prospective Contract General Provisions Paragraphs 2.35 and 2.36.

Annex B-9. Certificate of Origin of Equipment, Services, and Intellectual Property

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

(a) none of the work, including project design, labour and services, shall be performed other than by firms from and within an eligible NATO Participating Countries;

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

(c) The intellectual property rights to all design documentation and related system operating software shall reside in NATO member countries, and no license fees or royalty charges shall be paid by the Bidder to firms, individuals or Governments other than within the eligible NATO Participating Countries.

* This definition purposely excludes Components and/or Parts (as defined in AcodP-1) that are not subject to this certification.

Date

Signature of Authorised Representative

Printed Name

Title

Company

Annex B-10.

Certificate of Compliance with AQAP 2110, ISO 9001 or equivalent standards

I hereby certify that(*Company Name*) possesses and applies Quality Assurance Procedures / Plans that are compliant with AQAP 2110, ISO 9001 or other equivalent standards, as evidenced through the attached documentation.

A copy of the quality certification is attached herewith.

Date

Signature of Authorised Representative

Printed Name

Title

Company

Annex B-11.

List of Key Personnel (including Subcontractor Personnel)

Role	SOW Reference	Labour Category / Position within Organisation	Name	Designation Period*	Subcontractor Name**
ISS Manager			Mr/Ms ...		
Project Manager					
Technician					
Technician					
Technician					
For Bidder to propose any other Key Personnel					

* For example, EDC until Contract expiration date

** In case the proposed personnel is not directly employed by the Bidder

Date

Signature of Authorised Representative

Printed Name

Title

Company

Annex B-12. List of Bidder, Subcontractor and Third Party Background IPR

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

- a) The Contractor, Subcontractor⁴ and Third Party Background IPR⁵ specified in the table below will be used for the purpose of carrying out work pursuant to the Prospective Contract⁶.

ITEM	IPR DESCRIPTION	SUBCONTRACTOR / THIRD PARTY NAME AND COUNTRY OF REGISTRATION*	PURPOSE OF USE ⁷
1			
2			
3			
...			

* If applicable

- b) The stated Bidder has and will continue to have, for the duration of the Prospective Contract, all necessary rights in and to the Background IPR specified above necessary to perform the Contractor’s obligations under the Contract.
- c) The Background IPR stated above complies with the terms specified in Clauses 29 and 30 of NCI Agency Contract General Provisions.
- d) The intellectual property rights to all design documentation and related system operating software resides in NATO Participating Countries, and no license fees or royalty charges will be paid by the Bidder to firms, individuals or Governments other than within the eligible **NATO Participating Countries**.

Date

Signature of Authorised Representative

Printed Name

Title

Company

⁴ The definition of Subcontractor as per Prospective Contract General Provisions Clause 2.36: ‘Any person or legal entity directly or indirectly under Sub-Contract to the Contractor in performance of this Contract’.

⁵ The definitions of IPR, Contractor Background IPR and Third Party IPR are provided under Prospective Contract General Provisions Clauses 2.8, 2.20 and 2.37.

⁶ Indicate solely items the provision of which is necessary for the purpose of installing, maintaining and regularly operating the system (i.e. development environment, testing environment etc. items shall not be included).

⁷ Provide the relevant deliverable or service by specifying the CLIN or SOW requirement.

Annex B-13. Disclosure of Involvement of Former NCI Agency Employment

The Bidder hereby certifies that, in preparing its Bid, the Bidder did not have access to solicitation information prior to such information been authorized for release to Bidders (e.g., draft statement of work and requirement documentation).

The Bidder hereby acknowledges the post-employment measures applicable to former NCI Agency Personnel as per the NCI Agency Code of Conduct.

The Bidder hereby certifies that its personnel working as part of the company’s team, at any tier, preparing the Bid:

- Have not held employment with NCI Agency within the last two years.
- Has obtained a signed statement from the former NCI Agency personnel below, who departed the NCI Agency within the last two years, that they were not previously involved in the project under competition (as defined in the extract of the NCI Agency Code of Conduct provided provided below):

Employee Name	Former NCIA Position	Current Company Position

The Bidder also hereby certifies that it does not employ and/or receive services from former NCI Agency Personnel at grades A5 and above or ranks OF-5 and above, who departed the NCI Agency within the last 12 months. This prohibitions covers negotiations, representational communications and/or advisory activities.

Date

Signature of Authorised Representative

Printed Name

Title

Company

Excerpt of NCI Agency AD. 05.00, Code of Conduct dated May 2017**Article 14 PROCUREMENT AND CONTRACTORS**

- 14.1 NCI Agency Personnel are required to maintain unquestionable integrity and impartiality in relation to procurements initiated by the NCI Agency.
- 14.2 NCI Agency Personnel shall not disclose any proprietary or Contract related information regarding procurement directly or indirectly to any person other than a person authorized by the NCI Agency to receive such information. NCI Agency Personnel shall not disclose any documentation related to a procurement action to any third party without a need to know¹ (e.g., draft statement of work, statement of requirements) unless this is expressly provided under NATO Procurement Regulations or authorized in writing by the Director of Acquisition. During an on-going selection, NCI Agency Personnel shall not disclose any information on the selection procedure unless authorized by the Chairman of the award committee/board. The NCI Agency Personnel concerned will ensure that proper access controls are put in place to prevent disclosure of procurement information that has not yet been authorized for release for outside distribution, including draft statements of work and requirement documentations.
- 14.3 NCI Agency Personnel will not participate in a source selection if an offer has been provided by a friend, family member, a relative, or by a business concern owned, substantially owned, or controlled by him/her or by a friend, family member or a relative. NCI Agency Personnel appointed as part of an evaluation shall report such links to the Director of Acquisition immediately upon becoming aware of it.
- 14.4 Contractors and consultants shall not be allowed to participate in the drafting of the statement of work or in the source selection process unless they and their company/employer will be excluded from competition of the related Contract. The same will apply to contractors and consultants involved in the definition and development of requirements.
- 14.5 Contractors will be given specific and coherent statements of work, providing precise explanation of how she/he is going to be employed. Tasks to be performed and minimum qualifications are to be well defined from the start. In addition, supervisors will ensure that contractors do not occupy managerial positions within the Agency.
- 14.6 NCI Agency Personnel shall not enter into authorized commitments in the name of NCI Agency or NATO unless specifically authorized. NCI Agency Personnel must abstain from making promises or commitment to award or amend a Contract or otherwise create the appearance of a commitment from the NCI Agency unless properly authorized by the NCI Agency.
- 14.7 NCI Agency Personnel shall not endorse directly or indirectly products from industry. Therefore, NCI Agency Personnel shall not name or make statements endorsing or appearing to endorse products of specific companies.
- 14.8 Industry partners will need to abide with the post-employment measures under this Directive upon submission of their bids / proposals to the NCI Agency. As part of the selection process, industry will be requested to agree with an ethical statement.

15 INDUSTRY INITIATIVES

- 15.1 Industry initiatives may include loans, displays, tests or evaluation of equipment and software, requesting NCI Agency speakers at industry gatherings and conferences, inviting speakers from industry to NCI Agency events, consultancy or studies of technical or organizational issues, etc. These initiatives are usually at no cost to the NCI Agency and take place at a pre-contractual phase or before the development of requirements and specifications. While there are benefits associated with the early involvement of industry in the definition of requirements and specifications, this also raises the potential for unfair treatment of potential competitors.
- 15.2 Industry initiatives which go beyond routine interaction in connection with on-going contracts must be reported to and coordinated by the NCI Agency Acquisition Directorate for approval. Industry initiatives shall be properly documented and governed by written agreements between the NCI Agency and the company concerned where relevant. Such agreements may contain provisions describing the nature of the initiative, the non-disclosure of NCI Agency/NATO information, NCI Agency ownership of any resulting work, the NCI Agency's right to release such work product to future competitors for any follow-on competition or Contract, the requirement that any studies must provide non-proprietary solutions and/or an acknowledgement that the participating companies will not receive any preferential treatment in the contracting process.
- 15.3 Any authorized industry initiatives must be conducted in such a way that it does not confer an unfair advantage to the industry concerned or create competitive hurdles for potential competitors.

16 POST EMPLOYMENT MEASURES

- 17.1 The NCI Agency will not offer employment contracts to former NCI Agency Personnel who departed less than 2 years earlier, unless prior approval by the General Manager has been received.
- 17.2 Former NCI Agency Personnel will not be accepted as consultants or commercial counterpart for two (2) years after finalization of their employment at NCI Agency, unless the General Manager decides otherwise in the interest of the Agency and as long as NATO rules on double remuneration are observed. Such decision shall be recorded in writing. Commercial counterparts include owners or majority shareholders, key account managers, or staff member, agent or consultant of a company and/or subcontractors seeking business at any tier with the NCI Agency in relation to a procurement action in which the departing NCI Agency staff member was involved when he/she was under the employment of the NCI Agency. As per the Prince 2 Project methodology, a Project is defined as a "temporary organization that is created for the purpose of delivering one or more business products according to an agreed business case". For the purpose of this provision, involvement requires (i) drafting, review or coordination of internal procurement activities and documentation, such as statement of work and statement of requirement; and/or (ii) access to procurement information that has not yet been authorized for release for outside distribution, including draft statements of work and requirement documentations; and/or (iii) being appointed as a representative to the Project governance (e.g., Project Board) with access to procurement information as per (ii) above; and/or (iv) having provided strategic guidance to the project, with access to procurement information as per (ii) above.
- 17.3 In addition to Section 17.2 above, former NCI Agency Personnel at grades A5 and above or ranks OF-5 and above are prohibited during twelve months following the end of their

employment with the NCI Agency to engaging in negotiations, representational communications and/or advisory activities with the NCI Agency on behalf of a private entity, unless this has been agreed in advance by the NCI Agency General Manager and notified to the ASB.

- 17.4 NCI Agency Personnel leaving the Agency shall not contact their former colleagues in view of obtaining any information or documentation about procurement activities not yet authorized' release. NCI Agency Personnel shall immediately report such contacts to the Director of Acquisition.
- 17.5 The ASB Chairman will be the approving authority upon recommendation by the Legal Adviser when the NCI Agency Personnel concerned by the above is the NCI Agency General Manager and will notify the ASB.
- 17.6 NCI Agency Personnel leaving the Agency shall sign a statement that they are aware of the post-employment measures set out in this Directive.
- 17.7 The post-employment measures set out in this Directive shall be reflected in the NCI Agency procurement documents, such as IFBs, and Contract provisions.

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ANNEX C – TECHNICAL PROPOSAL CROSS REFERENCE MATRIX TABLE

Bidders shall complete the column “Bid Ref” with Bid references that locate the technical proposal documentation required by the IFB, e.g. section, paragraph, table (if applicable), page number etc. One copy each of the duly completed Cross Reference/ Compliance Table is to be included in the Bid Technical Proposal Package. The Cross Reference/Compliance

BI Section 3 Ref	Instruction	SoW Ref	BI Section 4 Ref	Evaluation Criteria	Bid Ref
3.5.6	In the Corporate experience in similar type of contracts of the Technical Proposal Package, the Bidder shall provide at least one (1) executive summary describing the successful delivery of a similar project in a similar environment during the last five (5) years	Req. 3	4.4.5	In the Executive Summary provided, the Bidder has identified at least one clear example of where they have delivered a similar project in a similar environment in the last 5 years identifying: a) The domain or area (ideally the customer name), the size (contract value range), duration and challenges encountered with remediation; b) The scope of work, demonstrating its capability to integrate technologies similar to provide preventive maintenance support for complex deployable/ transportable satellite communication systems	
3.5.6	In the Corporate experience in similar type of contracts of the Technical Proposal Package the bidder shall provide an executive summary overview of the offered capability. The Overview shall also summarize the main features of each of the sections of the Technical Proposal.	Req. 3	4.4.5	In the executive summary provided the Bidder has addressed the main features of each of the sections of the Technical Proposal. The summary shall indicate in broad detail how the service will be executed during the contract. It will show an overall understanding of the objectives/ scope/ requirements of the ISS TSGT project.	

BI Section 3 Ref	Instruction	SoW Ref	BI Section 4 Ref	Evaluation Criteria	Bid Ref
3.5.7	<p>In the Bidder qualification and Key Personnel CVs and security clearances of the Technical Proposal package the Bidder shall provide:</p> <p>Curriculum Vitae (CV) for the key personnel proposed for this project.</p>	Req. 4	4.4.6	<p>In the bid, the Bidder has identified and provided the CV for</p> <ul style="list-style-type: none"> a) ISS Manager b) Project Manager c) Technician (x3) <p>The Bidder shall provide a narrative describing the rationale for the selection of these individuals for these posts and provide detailed descriptions of the relevant experience of the individuals and security clearance information. This section shall also describe the authority and responsibility (and the limits) of the ISS Manager</p>	
3.5.8	<p>In the In-Service Support Plan (ISSP) of the Technical Proposal the Bidder shall provide a Preliminary ISSP</p>	Req. 6,7,8,9	4.4.7	<p>In the ISSP, the Bidder has identified all the tasks, including a description of the Contractor's ISS organization; a description of how the Contractor will interface with the Purchaser, including pertinent communication channels, points of contact and contact details; a description of the repair and return process including shipping addresses and points of contact and the information on how to access the Contractor's collaboration space or file share.</p>	
3.5.9	<p>In the Equipment Maintenance - PMI and documentation of the Technical Proposal the Bidder Shall describe how they plan to</p>	Section 5	4.4.8	<p>In the bid the Bidder has described their approach to PMI Delivery and documentation so that the Purchaser can understand the Bidder's approach to delivering PMIs and documentation.</p>	

BI Section 3 Ref	Instruction	SoW Ref	BI Section 4 Ref	Evaluation Criteria	Bid Ref
	run the contract with regard to the documentation and PMIs.				

ANNEX D – BID GUARANTEE – STANDBY LETTER OF CREDIT

Standby Letter of Credit Number: _____

Issue Date: _____

Beneficiary: NATO CI Agency,
Finance - Treasury,
Boulevard Léopold III,
B-1110 Brussels,
Belgium

Expiry Date: _____

1. We, (issuing bank) hereby establish in your favour our irrevocable standby letter of credit number {number} by order and for the account of (NAME AND ADDRESS OF BIDDER) in the original amount of (INSERT AMOUNT AS PER BOOK I PARA. 2.11.1). We are advised this Guarantee fulfils a requirement under Invitation for Bid IFB-CO-115401-TSGT-ISS dated _____.

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

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

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

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

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

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

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

NATO CI Agency Contracting Officer notifies us that the Letter of Credit is not required to be extended or is required to be extended for a shorter duration.

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

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

“The NATO CI 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 NATO CI Agency from, or on behalf of (NAME OF BIDDER), and the NATO CI Agency, as beneficiary, hereby draws on the standby letter of credit number _____ in the amount of € (Amount up to the maximum available under the LOC), such funds to be transferred to the account of the Beneficiary number _____ (to be identified when certificate is presented).”

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

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

8. Multiple drawings are allowed.

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

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

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

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

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IFB-CO-115401-TSGT-ISS

ANNEX E – CLARIFICATION REQUEST FORM

**INVITATION FOR BID
IFB-CO-115401-TSGT-ISS**

CLARIFICATION REQUEST FORM

NATO UNCLASSIFIED

INSERT COMPANY NAME HERE
 INSERT SUBMISSION DATE HERE

ADMINISTRATIVE CLARIFICATION REQUEST				
Serial No.	IFB Ref.	BIDDER'S QUESTION	NCI AGENCY ANSWER	Amendment to IFB⁸
A.1				
A.2				
A.3				
A.4				
A.5				

⁸ To be completed by the Purchaser: Specify 'YES' if the Amendment to IFB will be required as a direct result of the Clarification Request

INSERT COMPANY NAME HERE
 INSERT SUBMISSION DATE HERE

PRICE CLARIFICATION REQUEST				
Serial No.	IFB Ref.	BIDDER'S QUESTION	NCI AGENCY ANSWER	Amendment to IFB⁹
P.1				
P.2				
P.3				
P.4				
P.5				

⁹ To be completed by the Purchaser: Specify 'YES' if the Amendment to IFB will be required as a direct result of the Clarification Request

INSERT COMPANY NAME HERE
 INSERT SUBMISSION DATE HERE

TECHNICAL CLARIFICATION REQUEST				
Serial No.	IFB Ref.	BIDDER'S QUESTION	NCI AGENCY ANSWER	Amendment to IFB¹⁰
T.1				
T.2				
T.3				
T.4				
T.5				

¹⁰ To be completed by the Purchaser: Specify 'YES' if the Amendment to IFB will be required as a direct result of the Clarification Request

NATO UNCLASSIFIED

**NATO COMMUNICATIONS AND INFORMATION
AGENCY**



CONTRACT GENERAL PROVISIONS

V 1.0 dated 16 Oct 2014

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ANNEX 1 TO GENERAL PROVISIONS: PURCHASER'S PRICING PRINCIPLESA1-1

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.

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- 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:

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

.....

.....
SIGNATURE

Date

- 18.6 Failure to comply with any of the above requirements shall result in automatic foreclosure of the Claim. This foreclosure takes effect in all cases and also where, for example, the Claim is based on additional orders, where the facts are known to the Purchaser, where the Claim is based on defective specifications of the Purchaser or an alleged negligence in the pre-contractual stage.
- 18.7 Claims submitted by the Contractor will be reviewed by the Contracting Authority. The Contracting Authority will respond within sixty (60) days with a preliminary decision, based on an assessment and evaluation of the facts presented by the Parties, as to whether the Contracting Authority considers the Claim to have merit for consideration. If the preliminary decision of the Contracting Authority is that the Claim, as submitted is without merit, the Contractor shall have fourteen (14) days to present a rebuttal to the Contracting Authority and request reconsideration of the Contracting Authority's decision. Within thirty (30) days receipt of the Contractor's request for reconsideration, the Contracting Authority will issue a decision. The time requirements stated herein may be extended by the Contracting Authority in order to accommodate additional preparation efforts and fact finding discussions but the Contracting Authority may not unreasonable extend such a period. A decision that the submitted claim is without merit will be identified as such, will be issued in writing by the Contracting Authority and will be conclusive. A decision may only be challenged by the Contractor through the Disputes provisions described herein.
- 18.8 A decision by the Purchaser that the claim has merit will result in a Contracting Authority request to enter into negotiations with the Contractor to arrive at a mutually agreed fair and equitable settlement. The Contracting Authority's decision will contain a target date for the commencement and conclusion of such operations. If the Parties are unable to arrive at an agreement on a fair and reasonable settlement by the target date for conclusion, or any extension thereto made by the Contracting Authority, the latter may declare that negotiations are at an impasse and issue a preliminary decision as to the fair and reasonable settlement and the reasons supporting this decision. The Contractor shall have a period of thirty (30) days to present a rebuttal to the Contracting Authority and request reconsideration of the Contracting Authority's decision. Within sixty (60) days of receipt of the Contractor's request for reconsideration, the Contracting Authority will issue its decision on the request for reconsideration. This timeframe will be respected unless an authorisation is needed from a NATO or other authority , the schedule for which is beyond the Contracting Authority's control. A

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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.

Name of Company

Signature

Printed Name of Signatory

Title of Signatory

Date of Signature

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

19.7 For all additional or follow-up agreements which are made for Work which are furnished to the Purchaser without competition, the Contractor shall offer prices on a "Preferred Customer" basis, that is offer prices which are as favourable as those extended to any Government, Agency, Company, Organisation or individual purchasing or handling like quantities of

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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).

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- 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"

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

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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.

* *

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

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

B. Purchaser's Pricing Principles

1. Allowable cost

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

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

i. Direct Costs

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

ii. Indirect Costs

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

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

2. Unallowable Costs

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

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

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

3. Rates and Factors

- (a) The Contractor shall inform the Purchaser of his rates and factors the basis upon which they were computed.
- (b) If the Contractor's rates and factors for similar contracts placed with national or international public services have not been established or approved by a government agency or an agency accepted by his government, the Contractor shall provide the necessary data to support the proposed rates.
- (c) The term "provisional " used in the title of a rate or factor means a tentative rate established for interim billing purposes pending negotiation and agreement to the final rate or factor.
- (d) A rate or factor is pre-determined if it is fixed before or during a certain period and based on (estimated) costs to be incurred during this period. 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.



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IFB-CO-115401-TSGT-ISS

**NATO Transportable Satellite Ground Terminals Third Generation
(TSGT3G) and Upgraded Transportable Satellite Ground
Terminals (UTSGT) In-Service Support Activities**

BOOK II

PART IV

STATEMENT OF WORK (SOW)

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List of Acronyms

ACU	Antenna Control Unit
AirC2	Air Command and Control
AMV	Auxiliary Military Vehicle
AQAP	Allied Quality Assurance Publications
ASNMC	Advanced SATCOM Network Monitoring and Control equipment
BER	Beyond Economic Repair
BIT	Built-in Test Facility
CC	Configuration Control
CID	Configuration Identification and Documentation
CIS	Communications Information Systems
CMI	Corrective Maintenance Intervention
CoC	Certificate of Conformity
COCO	Contractor Owned / Contractor Operated
CONO	Contractor Owned / NATO Operated
COTS	Commercial Off the Shelf
CSA	Configuration Status Accounting
CSSC	CIS Sustainment Support Centre
DACCC	Deployable Air C2 Centre
DCM	Deployable CIS Module
DSO	Dual Satellite Operation
ECR	Engineering Change Proposals
EMP	Electronic Protective Measures
EMS	EPM Modem Systems
EPDP	Electrical Power Distribution Panel
EPM	Electronic Protection Measures
FFF	Form-Fit and Function
FSP	Forward Support Point
GQAA	Government Quality Assurance Authority
HL	Hardware Level
HPA	High Power Amplifier
HVAC	Heating Ventilation and Air Conditioning
HW	Hardware
IFL	Inter-Facility Links
ISS	In-Service Support
IMT	Industry Maintenance Task
LNA	Low Noise Amplifier
LRU	Line Replaceable Unit

M&S Coy	Maintenance & Support Company
MACS	Monitoring And Control Sub-system
MSI	Maintenance Significant Items
NB PSS	No Break Power Supply System
NCISG	NATO CIS Group
NFF	No-Fault Found
NMT	NATO Maintenance Task
NOCO	NATO Owned / Contractor Operated
NONO	NATO Owned / NATO Operated
NQAR	National Quality Assurance Representative
NSB	NATO Signal Battalion
OEM	Original Equipment Manufacturer
PFE	Purchaser Furnished Equipment
PFE	Purchaser Furnished Equipment
PGS	Power Generator Set
PHS&T	Packing, Handling, Storage and Transport
PIM	Passive Inter-Modulation
PMI	Preventive Maintenance Intervention
PMV	Primary Military Vehicle
PoC	Point of Contact
PPE	Personal Protective Equipment
QA	Quality Assurance
QAP	Quality Assurance Plan
QAR	QA Representative
RFD	Requests for Deviation
RFW	Requests for Waiver
RMA	Return Material Authorization
SDM	Service Delivery Manager
SL	Software Level
SM	System Manager
SMS	Spectrum Monitoring System
SoW	Statement of Work
SSS	System Segment Specification
SW	Software
TH (CSSC)	Transmission Head
TME	Test and Measurement Equipment
TSGT3G	Transportable Satellite Ground Terminal Third Generation
TTE	Tools and Test Equipment

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SECTION 1 INTRODUCTION

1.1 Purchaser's intent

The purpose of this Statement of Work is to define the type and quantity of services required to support the operational readiness of the NATO Family of Transportable Satellite Ground Terminals (TSGTs). This contract will provide for a fixed number of scheduled services, executed in most cases at the Peace Time Location (PTL) of the systems throughout NATO.

These variants include but are not limited to:

- TSGT3G-DSO DCIS (13)
- TSGT3G-DSO DACCC (8)
- TSGT3G – DCAOC (OTSX T1 Only)
- TSGT3G – DCIS OLTX T2 Mock up
- HBTX Test Mock-up
- PAAX Training Mock-up
- UTSGT (7)

The requested Services under this Contract shall include:

- a) Developing and implementing an In-Service Support Plan;
- b) Providing annual Preventive Maintenance Intervention (PMI) on TSGT and UTSGT systems (on average 31 sets per year) including minor repairs;
- c) Providing off-site corrective maintenance of failed equipment (repair on need);
- d) Providing on call support;
- e) Conducting In-service Support contract reporting including organising and conducting timely performance meetings either live or via private commercial collaboration platform;
- f) Conducting support to Configuration Management activities through data entry, Reporting and documenting configuration changes if/when applicable.
- g) Providing a Preventive Maintenance schedule that supports the NCISG Master Program of Work (supplied upon award).

1.2 Interpretation of the SoW

The term “Contractor” shall be interpreted to include the entire Contractor/ subcontractors team (if applicable). All requirements in this SoW, which would apply to a Contractor activity, shall apply equally to subcontractor activities.

“Shall” and “Shall not” statements shall be interpreted as requirements and are contractually binding. “Should” and “Should not” statements shall be interpreted as requirements that hold a recommendation, only to be ignored by the Contractor with valid reasons. “May” statements shall be interpreted as optional requirements of which the Contractor shall decide whether to implement the requirement or not.

“Will” statements are not requirements, but clarifications that explain intent on the part of the Purchaser.

The order of the SoW requirements shall not be interpreted to specify the order in which they must be carried out unless explicitly stated. I.e. the SoW defines all the activities the Contractor’s process should cover. The Contractor’s ISS Plan shall include where and when these occur.

Whenever reference is made to a section, task, or paragraph, the reference shall be construed to include all subordinate and referenced paragraphs.

Whenever requirements are stated herein to “include” a group of items, parameters, or other considerations, “include” shall be construed to mean “include, but not limited to.”

SECTION 2 SYSTEMS DESCRIPTION AND LOCATION

This chapter contains the clarifications and requirements concerning the scope of work required from the Contractor, as well as the scope of equipment, services and work locations. In addition, the existing support arrangements are clarified and requirements regarding the scope of Contractor responsibility for support are defined.

2.1 Equipment

The TSGT system has been specifically designed for the NATO Response Force (NRF) Deployable Communication and Information Systems (DCIS) and Air Command and Control (AirC2). The detailed description of the TSGT variants (UTSGT, TSGT3G DSO, DACCC, etc.) including all system parts are defined in the various HOTO Manuals for the respective TSGT system. A breakdown of the equipment can be found in Appendix A.

2.2 System Description

2.2.1 TSGT

The TSGT3G is a military pattern vehicle-mounted electronics and antenna platform comprising of an integral structure platform called a 'Container'.

The TSGT3G fleet has been acquired, augmented, and upgraded over the years via multiple projects.

The TSGT3G system was initially procured by the Purchaser under the contract CO-11790-TSGT and its contract amendments 1 through 8.

Under this contract, the Contractor provided: 16 T1 Configurations (including 16 T2 Configurations), two different T2 Configurations, 2 Dismounted T2 Configurations, 1 Dismounted T2 Configuration (which was later converted into a set of depot-spare), 1 separate T1 Extension, 18 Spectrum Monitoring System (SMS) fits, with a further 5 deployable kits available and currently stored at the CSSC, and a set of depot-level spares.

Some of the TSGT3G equipment was provided to the Contractors as Purchaser Furnished Equipment (PFE), such as the Alternative Military Vehicle T2 Extensions, consisting of T2 Trailers and Power Generator Sets (PGS), EPM Modem Systems (EMS), and Advanced SATCOM Network Monitoring and Control equipment (ASNMC).

The fleet has been augmented with four additional Deployable AirC2 Centre DACCC (already DSO) T2 TSGT3G's systems procured by the Purchaser from the Contractor, under the Purchaser's contract CO-14038-TSGT.

The TSGT3G container contains Satellite Communications (SATCOM) equipment as required, such as High Power Amplifier (HPA), Solid State Power Amplifier (SSPA), X-band frequency transceivers, Low Noise Amplifiers (LNA), filters, satellite modems, baseband termination unit, Antenna Control Units (ACU), GPS

disciplined time and frequency reference subsystem, patch panels, and other equipment to fulfil the system requirements.

The system also includes the Alternative Military Vehicle T1 Extensions, consisting of T1 Trailers and PGSs, EMS, and ASNMC. These systems are out of scope for this contract.

The TSGT3G can be used in two different configurations, the T1 Configuration and the T2 Configuration. The T2 Configuration is a sub-set of the T1 Configuration. The T1 Configuration consists of four distinctive elements (of which the first two elements (a & b) comprise a T2 Configuration):

- a) T2 Primary Military Vehicle with a T2 Container, including a 2.4m antenna on top (see Figure 1)
- b) T2 Extension consisting of a T2 Trailer and a PGS (see Figure 1)
- c) T1 Alternative Military Vehicle (see Figure 2)
- d) T1 Extension consisting of a T1 Trailer with 4.6m antenna (see Figure 2)

The TSGT3G also exists as a Dismounted T2 Configuration and is used for training and depot-level testing. A Dismounted T2 Configuration is essentially the same as a T2 Container but has more space, more accessible rack configuration, no intrusion alarm sub-system, a top cover, and a weather canopy.



Figure 1 – TSGT3G T2 Configuration

Figure 1 displays T2 Primary Military Vehicle with T2 Container and 2.4m antenna on top (under the cover) and the T2 Extension, consisting of a T2 Trailer and PGS.



Figure 2 – TSGT3G T1 Configuration (This is added to the T2 configuration above to form a complete T1 Configuration)

Figure 2 displays the T1 Alternative Military Vehicle (AMV) and the T1 Extension, consisting of a T1 Trailer with 4.6m antenna.

2.2.1.1 List of TSGT systems

For ease of reference, the Configuration IDs, serial numbers, and NATO Customer Codes of the TSGT3G T2 Containers and T1 Extensions are given in the table below:

ID	T2 Container		T1 Extension			
	Customer Code	S/N (Pre-DSO)	11137 Part Number	S/N (DSO-Upgraded)	Customer Code	S/N
DCIS-1	OLAX	1000758	11137-05005-002	1004262	OTAX	1002168
DCIS-2	OLBX	1000759	11137-05005-002	1004259	OTBX	1002176
DCIS-3	OLCX	1000760	11137-05005-002	1004264	OTCX	1002171
DCIS-4	OLDX	1000762	11137-05005-002	1004257	OTDX	1002173
DCIS-5	OLEX	1000761	11137-05005-002	1004265	OTEX	1002174
DCIS-6	OLFX	1000764	11137-05005-002	1004255	OTFX	1002179
DCIS-7	OLGX	1000763	11137-05005-002	1004256	OTGX	1002175
DCIS-8	OLHX	1000765	11137-05005-002	1004258	OTHX	1002167
DCIS-9	OLJX	1000766	11137-05005-002	1004266	OTJX	1002178
DCIS-10	OLKX	1000767	11137-05005-002	1004263	OTKX	1002172
DCIS-11	OLLX	1000770	11137-05005-002	1004260	OTLX	1002181
DCIS-12	OLMX	1000768	11137-05005-002	1004254	OTMX	1002182
DCIS-13	OLNX	1000769	11137-05005-002	1004261	OTNX	1002180
DAC-1	OLPX	1000754	11137-05005-001	1004250	N/A	N/A
DAC-2	OLQX	1000755	11137-05005-001	1004251	OTQX	1002170
DAC-3	OLRX	1000756	11137-05005-001	1004252	OTPX	1002169
DAC-4	OLSX	1000757	11137-05005-001	1004253	N/A	N/A
DACCC-1	OLUX	1003850	11008-05005-001	1003850	N/A	N/A
DACCC-2	OLVX	1003851	11008-05005-001	1003851	N/A	N/A
DACCC-3	OLWX	1003852	11008-05005-001	1003852	N/A	N/A
DACCC-4	OLXX	1003853	11008-05005-001	1003853	N/A	N/A
DCAOC	OLTX	1000771	N/A	N/A	OTSX	1002177
NCI Academy Dismount	PAAX	N/A	N/A	N/A	OTRX	1002166
NCI- CSSC Test Rig	HBTX	N/A	N/A	N/A	N/A	N/A

Table 2-1 – List of TSGT SystemsTable

2.2.2 UTSGT

The UTSGT is an integrated system that provides a deployable satellite communication capability. This system enables the establishment of reliable and secure military communications in support of NATO command posts. The UTSGT is configured to operate in the X-band and is able to communicate with NATO satellites.

The UTSGT physically consists of five components as depicted on the following figure: Military Vehicle (Renault Kerax 410) with mounted Container, Cable reels and Power Generating Set (PGS), and an antenna trailer with mounted 4.8m Cassegrain antenna.



Figure 3 – UTSGT

The UTSGT system in figure 3 was an upgrade of the 2nd generation TSGT (which was procured in 2002 and integrated by Page Europa). The TSGT was subsequently upgraded by Indra Sistemas S.A. Madrid, Spain under the Purchaser's contract CO-12677-TSGT and its contract amendments 1 and 2. Under this contract, Indra provided 7 UTSGTs, 7 sets of on-site spares, and one set of depot-level spares.

For the upgrade, 7 UTSGT Upgrade Kits were provided by the Purchaser as Purchaser Furnished Equipment (PFE). The upgrade kits were procured from and manufactured by the Contractor.

The equipment provided with these kits is identical to the equipment provided for the TSGT3G configurations, procured under contract CO-11790-TSGT, in order to ensure commonality of equipment across the different generations of TSGT.

The kits included major components such as the SHF sub-system, the L-band modems sub-system, the Baseband and fibre optic sub-system, the Monitoring and Control Sub-system (MACS), the Beacon receiver and all additional materiel such as cables, combiners, splitters, patch panels, and interconnections.

Additional PFE was provided to Indra to upgrade the TSGTs, such as the Military Vehicle (Renault Kerax 410), PGSs, EMS and ASNMC, as well as the Antenna trailers with mounted 4.8m Cassegrain antennas and associated equipment.

2.2.2.1 List of UTSGT systems

For ease of reference, the serial numbers and NATO Customer Codes of the UTSGT are given in the table below:

Customer Code	S/N
O10X	NCIA - 12002417
O11X	NCIA - 12003350
O12X	NCIA - 12003351
O13X	NCIA - 12003352
O14X	NCIA – 12003353
O15X	NCIA - 12003354
O16X	NCIA - 12003355

Table 2-2 – List of TSGT Systems

2.3 Locations

Purchaser Peacetime Locations (PTL) are divided into THREE (3) groups: NCISG, DACCC, and NCI Agency. The equipment in scope of the SoW is located at any of the following Purchaser locations. This is subject to change year to year:

Locations		Quantities		
		TSGT3G (T2)	TSGT3G (T1)	UTSGT
NCISG	Wesel (DEU) Haderslev (DNK) Grazzanise (ITA) Bucharest (ROU) Gorna Malina (BLG) Bydgoszcz (POL) Lipnik Nad Becvou (CZE) Ruzomberok (SVK) Vilnius (LTN) Szekesfehervar (HUN) Velika Gorica (CRO)	13	13	7
DACCC	Poggio Renatico (ITA)	8	3	0
NCI Agency	Brunssum (NLD) Oeiras (PRT)	3	1	0

Table 2-3 – List of TSGT Systems

2.4 Purchaser Maintenance and Support Concept

The Purchaser is responsible for all levels of IT operations, including operations service desk functions, incident management, problem management, release & deployment management, change management, and configuration management.

The Purchaser is responsible for providing space segment airtime and anchoring function if required by the Contractor to perform the activities within the scope of this contract.

The Purchaser is primarily responsible for Corrective Maintenance Interventions (CMI).

Purchaser Maintenance Concept details are at Appendix B

NATO has identified the following entities, which provide varying levels of support, knowledge, proficiency and experience. These entities are:

NATO

- NCISG (See Figure 1 below)
 - NATO Signal Battalion
 - M&S Coy
 - DCM
- AIRC2 (See Figure 2 below)
 - DACCC
- NCIA (The Purchaser)
 - NSII
 - CSSC
 - FSP

2.5 Support Concepts

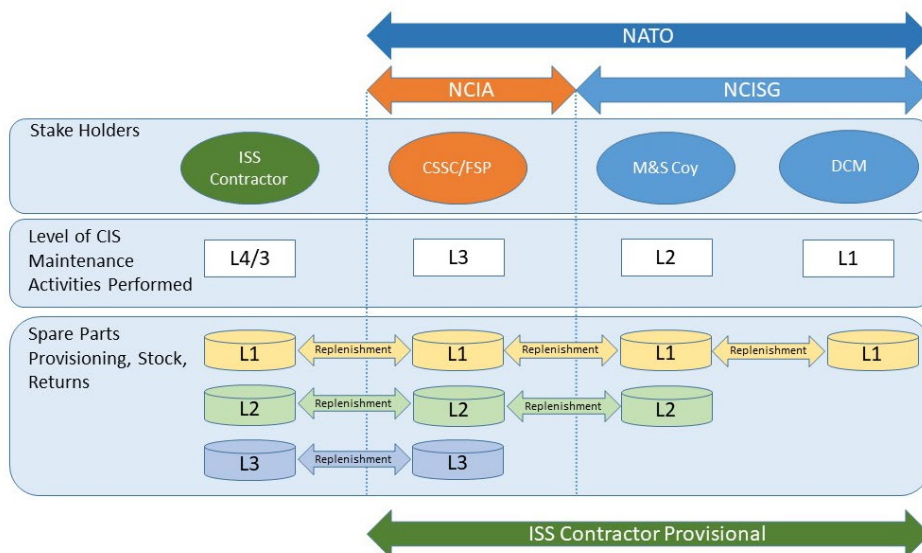


Figure 4 – DCIS Support Concept

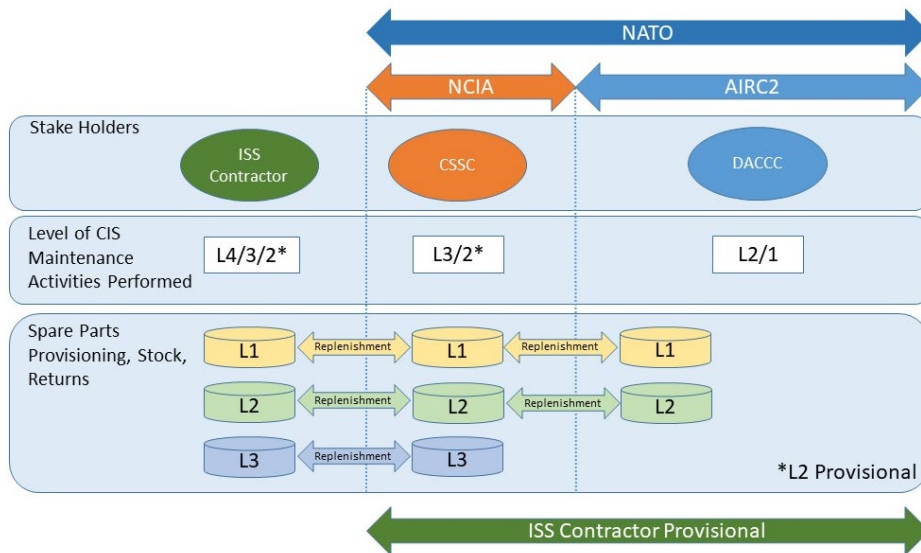


Figure 5 – DACCC Support Concept

2.6 System Definitions

Systems are composed of CIS and non-CIS subsystems. These are defined as follow:

- **CIS subsystems:** All subsystems/items composing the system and participating in its primary transmission function (e.g. Modems, Up/Down Converters, Power Amplifiers, ACU, M&C Systems including servers, Routing and Switching equipment);
- **Non-CIS Subsystems:** All subsystems/items supporting but not participating in the primary transmission function. (e.g. Air Conditioning, UPS, Power Distribution) and related SW/FW. This does not include the PMV and AMV (vehicles); Trailers, or Generators. These systems are maintained and supported by NSPA and are out of scope. The Contractor will not be responsible for for any Non-CIS Preventive maintenance under the framework of this contract.

SECTION 3 IN-SERVICE SUPPORT (ISS) MANAGEMENT

REQ 1. The Contractor shall establish an **ISS Program** to manage the ISS activities within this Contract.

REQ 2. The Contractor shall appoint an **ISS Manager** to conduct the ISS Program and act as the interface with the Purchaser on ISS matters.

REQ 3. The Bidder shall have experience in similar type of contracts/ support in the past 5 years.

REQ 4. The Contractor shall provide the name and Curriculum Vitae (CV) or resume for all key personnel. Key personnel requirements will be assessed by NCIA on the basis of a clear list of competences/ skills/ experience that the different resources shall have/demonstrate. Key personnel include the ISS Manager. This appointment is subject to the approval of the NSII DCIS SATCOM Service Delivery Manager. The Key Personnel Job descriptions/ requirements are supplied at **Appendix F**:

- **ISS Manager**
- **Project Manager**
- **Technician**

REQ 5. Key personnel are to be qualified and competent and be able to carry out their given roles and responsibilities.

REQ 6. The Contractor shall develop, provide and implement an **ISS Plan (ISSP)**. The ISS Plan shall be provided to the Purchaser for review and acceptance within four (4) weeks after Effective Date of Contract (EDC). The ISSP will be reviewed by the Purchaser and comments submitted to the Contractor no later than five (5) working days after receipt. The ISS Plan final version will be provided to the Purchaser six (6) weeks after Effective Date of Contract (EDC). The ISSP shall explain in detail how the Contractor intends to fulfil all requirements in this SoW.

REQ 7. The approval of the ISS Plan by the Purchaser signifies only that the Purchaser agrees to the Contractor's approach in meeting the requirements. This approval in no way relieves the Contractor from its responsibilities to meet the requirements stated in this SoW.

REQ 8. The Contractor shall conduct ISS activities in accordance with the Purchaser accepted ISS Plan. Acceptance of the ISS Plan shall not in any manner change the requirements of this contract.

REQ 9. The **In-Service Support Plan (ISSP)** shall include:

- a) a description of the Contractor's ISS organisation;
- b) a description of how the contractor will interface with the purchaser, including pertinent communication channels, points of contact and contact details;
- c) a description of the repair and return process including shipping addresses and points of contact;
- d) information on how to access the Contractor's collaboration space or file share.

REQ 10. The ISS Plan 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 ISS period.

REQ 11. The Contractor shall establish a Collaborative Environment to store Maintenance Reports; Monthly Reports; Quarterly Reports; and all other communications between the Purchaser and Contractor. A collaborative environment may consist of a Share Folder protected with Commercial Best Practices.

3.1 Reporting

REQ 12. The Contractor shall capture relevant data used in reporting and analysis in the Purchaser provided ISS database suite (Zeus).

Zeus will be used to generate automated reports.

REQ 13. Reports shall include links to automated reporting tools rather than manually generated slides or other media. If Zeus cannot be leveraged for this purpose, the Contractor shall provide reports in another format such as slides, spreadsheets, word documents or PDFs as appropriate.

REQ 14. The contractor shall provide the following reports in PDF format, placed in the Contractor's share file repository and delivered via email to the NSII SATCOM Project Manager (PM) - Matthew Watson at matthew.watson@ncia.nato.int; the Deployable SATCOM Service Delivery Manager (SDM) Kenneth Murphy at kenneth.murphy@ncia.nato.int and Head Transmission, CSSC EMB/TSS, CIS Sustainment Support Centre John Parris at john.parris@ncia.nato.int in the format, media (MS Word, MS PowerPoint, or MS Excel) as appropriate in the the timeline specified below.

REQ 15. The Contractor shall submit a final **PMI Activity Report** within (1) week of performing the activity. The PMI Activity Report is supplied in **Appendix E**.

REQ 16. The Contractor shall provide a **detailed PMI Activity report**, including all measurement results not later than two (2) weeks after the planned end date of the HL3 PMI timeframe.

REQ 17. The **Monthly ISS Activity Report** shall also summarise activities performed over the month, any accomplishments, schedule of deliveries against progress, difficulties encountered, and resolution of any issues raised in previous Quarterly Review Meeting. The Reports shall include:

- Summary of all other reports;
- Contract framework - Financials, purchasing, schedule updates, spares and consumables inventory on hand, personnel actions, etc.;
- Schedule of planned maintenance activities;
- Contractor PMI Activity Reports before end of PMI window;
- Description of issues/problems/risks that have occurred in the preceding period and the identified/proposed solution (Lessons Learned Log);
- Answers to questions addressed by the Purchaser between meetings;
- The progress update of the work related to the PMI schedule;
- The quantity of HL3 PMI performed;
- Status of the equipment (equipment order, in the Contractor's office, packing, transfer to the site);

- Description of any identified problems and high-risk areas and the proposed solutions and corrective actions;
- Activities planned for the next period;
- Update on the status of the Action Items List (AIL).

Upon receipt of the Monthly Report, the Purchaser can call for an Ad-hoc meeting with the Contractor to review or discuss the Monthly Report contents via unclassified commercial collaboration platform as designated by the contractor such as Microsoft Teams.

REQ 18. The Contractor shall organise **Quarterly ISS Performance Reviews** to evaluate the ISS performance of the Contractor during the preceding period and discuss future activities and other topics as may be determined by the Contractor and the Purchaser.

REQ 19. The Quarterly ISS Performance Review shall be scheduled by the Contractor via VTC using a commercial collaboration platform (i.e. Skype, MS Teams, Zoom etc.):

- Final review of the contracted ISS period shall be no later than three weeks before the end of the contracted ISS period.

REQ 20. The **Quarterly ISS Performance Review** agenda shall include:

- Review of the minutes recorded and agreed at the previous Quarterly Review Meeting;
- The PEP review;
- The Lessons Learned Log Review;
- Discussion/resolution of problems and areas of concern;
- a summary of items to be discussed;
- Any other business.

REQ 21. Unless otherwise specified, at least two weeks before all meetings required under this Contract, the Contractor shall send an invitation, including:

- Purpose;
- Agenda;
- List of participants;
- Date, hour, place/online; collaboration tools/platforms, and duration.

REQ 22. The Contractor shall provide **minutes of all meetings**. The minutes shall document the topics, problems, discussions, and all decisions made and include copies of the current Action Item List (AIL), Project Schedule, and Risk Analysis/Assessment, as Annexes. The Minutes shall include:

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

REQ 23. Dates for the Quarterly Review Meeting shall be mutually agreed between the Purchaser and the Contractor.

REQ 24. The Contractor shall chair the meetings.

REQ 25. 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 five working days before the meeting.

REQ 26. The Contractor shall attend and provide the meeting's Secretary for the meetings.

REQ 27. During the meeting, the meeting's Secretary shall be entirely devoted to capturing the minutes of the meeting.

REQ 28. 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.

REQ 29. These minutes shall not be regarded by the Parties as a mechanism to change the terms, conditions, or specifications of the Contract.

REQ 30. The Contractor shall send the final version of the draft minutes to the Purchaser not later than five working days after the meeting for approval and signature by the Purchaser.

REQ 31. The Contractor shall maintain archives of all reports and minutes on the Collaborative Environment (see below).

3.2 Performance review and evaluation

REQ 32. During the ISS period, in conjunction with the 2nd and 4th Quarter Review Meetings the Contractor shall schedule an **ISS performance review**. The reviews shall be held twice a year, through-out the contracted ISS period. The Final review shall be no later than one (1) month before the end of the contracted ISS period.

REQ 33. Each ISS performance review shall evaluate the performance of the Contractor during the preceding period and discuss future activities.

REQ 34. Within two weeks after the end of this ISS Contract the Contractor shall provide an **Final ISS Performance report**. The Final ISS report shall be a summary of all preceding ISS performance reports and describe in detail all work performed under this contract.

REQ 35. The Purchaser will chair the ISS performance review. The Contractor shall initiate and organise the review, provide the agenda, and record and produce the minutes of the reviews for approval by the Purchaser

3.3 End of Fiscal year activities

REQ 36. In conjunction with the 4th quarter report the Contractor shall provide an **End of Year ISS Performance Report**. The End of Year Performance report shall be a summary of all preceding ISS performance reports and describe in detail all work performed under this contract

3.4 End of contract activities

REQ 37. Within 2 weeks of the end of the contract the Contractor shall return all spares, consumables, test equipment and any other Purchaser Furnished Equipment or materials.

Returned to
NCIA CIS SUSTAINMENT SUPPORT CENTRE
BUILDING 204,
RIMBURGERWEG 30
BRUNSSUM
6445 PA
The Netherlands
ATTN: John Parris (Ext 3360) and Andy Kunisch (Ext 3180)

SECTION 4 IN-SERVICE SUPPORT ACTIVITIES

REQ 38. The Contractor shall provide the services, starting from EDC (Effective Date of Contract) up to and including 31 December 2024 as listed in the Schedule of Supplies and Services. Three one-year options may be exercised.

REQ 39. The Contractor shall ensure that personnel conducting activities on the systems hold or have applied to have, the appropriate Security Clearance (at least NS or equivalent) level by providing copies of personnel Security Clearance to the Purchaser when they are available.

The Purchaser will provide escorts as required for on-site visits for the first 90 days of the contract.

REQ 40. The Contractor shall adhere to all NATO policies and practices when working at NATO locations. The Contractor shall follow the local NATO worksite working hours.

REQ 41. The Contractor shall conduct all PMI activities alongside Purchaser Team member(s) who will lead the effort.

REQ 42. The Contractor shall take general guidance from the Purchaser Team as to the quality and completeness of the effort.

REQ 43. The Contractor shall rectify discrepancies with the PMI identified by the Purchaser Team while on site within the PMI window.

REQ 44. Scope of this SOW shall cover (unless stated otherwise) all equipment outlined in the PMI Instructions:

- All TSGT3G and UTSGT CIS systems except for ASNMC and EMS;
- CIS equipment brackets, shelves, cables, canvas covers and mounting hardware.

Not in scope of this SOW shall be:

- Software.
- All devices and equipment not listed within the scope or the appendices.
- All Non-CIS hardware (generators, vehicles, shelters).

Appendix A includes a product breakdown pertaining to each system.

REQ 45. Maintenance activities related to this contract shall be performed primarily at the Peace Time Location (PTL), but terminals may be serviced at the associated NATO Signal Battalion Forward Support Base, the NATO CSSC located in Brunssum, NLD or a location within a NATO nation as required.

REQ 46. The Purchaser will supply the necessary consumable parts and materials to support the PMI activities.

REQ 47. The Contractor shall provide all other necessary resources to include services, personnel, utilities and tools needed to accomplish the ISS services requested in this SoW, unless stated otherwise in the requirements of this Contract.

REQ 48. The Contractor shall coordinate the shipment or pickup of maintenance consumables from the CSSC to support the scheduled activities.

REQ 49. The Contractor shall be the sole responsible party for all transport, travel (inc. VISA) and living expenses for Contractor personnel.

REQ 50. The Contractor shall provide all necessary testing and personal protective equipment (PPE) for pandemic-related requirements.

REQ 51. The Contractor shall ensure that all ISS services, especially those defined in Sections 5.1 (Equipment Maintenance) are conducted in coordination with and the approval of the Purchaser's system support entities, in accordance with the Purchaser's policies and regulations on maintenance and support.

4.1 Test Equipment:

For the contract duration, the Purchaser will make two (2) sets of **Automated Test Equipment (ATE)** available to the Contractor for use on PMIs. This equipment remains in the possession and general care of the Contractor for the duration of the contract. The list of equipment is supplied in **Appendix D**.

REQ 52. If required, the Contractor shall develop test configurations for the ATE to be used for PMIs, calibration of systems and other tests as specified in this SoW or identified in Work Instructions referenced by this SoW with file upon verification of eligibility.

REQ 53. The Contractor shall be responsible for Level 1 maintenance of the ATE as described in the manuals.

REQ 54. The contractor shall coordinate down time for this equipment and make available to the purchaser for annual maintenance, calibration and/or repair. All equipment, data, and software licensing must be relinquished back to the Purchaser within 7 days of notification to return or, if no notification provided, no later than 15 days before the close of the contract if no follow on contract exists.

REQ 55. The Contractor shall return the equipment to the purchaser within (2) weeks of the end of the contract and within (2) weeks upon request of return. Returned to:

NCIA CIS SUSTAINMENT SUPPORT CENTRE

BUILDING 204,

RIMBURGERWEG 30

BRUNSSUM

6445 PA

The Netherlands

ATTN: John Parris and Andy Kunisch

The maintenance of the associated technical documentation, including the logistics database of this equipment will be the responsibility of the Purchaser.

SECTION 5 EQUIPMENT MAINTENANCE

5.1 Equipment Maintenance (EM)

REQ 56. During the ISS period, the Contractor shall provide on-site preventive maintenance and minor corrective maintenance of failed equipment at the request of the Purchaser.

REQ 57. The Contractor shall perform Preventive Maintenance Interventions (PMI) on equipment in scope of this Contract and sent by the Purchaser.

The transport of maintenance supplies to and from the Contractor’s facility will be the responsibility of the Purchaser.

5.1.1 Preventive Maintenance Intervention (PMI):

PMIs (Preventive Maintenance Interventions) are recurrent preventive maintenance activities to be performed at Hardware Level 1 (HL1), level 2 (HL2), and level 3 (HL3) for HW as follows:

- HL1 and HL2 PMI will be conducted by the Purchaser’s organization entities.
- HL3 conducted by Purchaser’s organization and Contractor.

A typical HW level maintenance definition can be found attached in Appendix B.

REQ 58. The Contractor shall perform HL3 PMI activities scheduled once a year on approximately 31 systems either at the Peacetime Location or the Purchaser’s maintenance facility as per address below or on-site as within the NATO nation it is located:

NCIA CIS SUSTAINMENT SUPPORT CENTRE
BUILDING 204,
RIMBURGERWEG 30
BRUNSSUM
6445 PA
The Netherlands
ATTN: John Parris and Andy Kunisch

In 2022, the number of Major HL3 PMI per system and group location will be similar to the table below: The schedule will be formalised in the first 30 days of the contract year.

	DSO upgrade	NCISG UTSGT	DACCC DSO	DCAOC Non-DSO	NCIA DSO-Mock-Up
TSGT3G	13	0	8	1	2
UTSGT	0	7	0	0	0

Table 5-1 – Number of Major HL3 PMI per system and location

REQ 59. The Contractor shall conduct all PMIs based on the appropriate (TSGT/UTSGT) PMI Instruction supplied by the Purchaser (see Appendix C). -

REQ 60. The Contractor shall deliver the support by personnel qualified to carry out support tasks required to restore the equipment to its intended function and performance.

REQ 61. The maintenance activities shall be provided at any location in the scope of this SoW.

The Purchaser (FSP Lead) that supports the respective NSB will act as a POC (Primary Point of Contact) for the Contractor to arrange site access to NATO or National Military facilities until local coordination is established.

REQ 62. Within the first #3 (Three) days of the HL3 PMI timeframe, the Contractor shall conduct an evaluation of the system operational status to identify any additional activity (e.g., corrective Maintenance) to be performed, and provide a report defining the impact, and include a proposed Course of Action to the Purchaser.

REQ 63. The Contractor shall plan its Major HL3 PMI activities timeframe in cooperation with the SDM, SM, and the TH. This will be within a PMI Window of Opportunity of 3 to 4 months.



Figure 6 – PMI timeframe

REQ 64. The Contractor shall perform the scheduled PMI activity within the timeframe allotted by the Authorized Service Interruption (ASI) and as defined by the approved Service Delivery Schedule (SDS) and Configuration Management Plan (CMP).

This timeframe will be provided by the Purchaser as part of the Service Delivery Schedule (SDS) issued at or before the start of the contract year.

REQ 65. During the execution of an HL3 PMI, the contractor shall perform a complete inventory of the system on all subsystems and elements identified in the Balance list and shall highlight any discrepancies.

The Balance list will be generated by the CSSC Logisticians from EBA.

If the use of a Power Generator (PG) is required for PMI activities the Purchaser will make an appropriate PG available to the Contractor with a valid certificate of Maintenance. Should the Purchaser fails to make the appropriate PG available the Contractor will not be obliged to conduct these tasks.

At the end of the HL3 PMI Timeframe, the Purchaser will conduct a qualitative acceptance check of the tasks performed by the Contractor based upon the supplied PMI Instruction.

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APPENDIX A.

APPENDIX LIST

Appendix A:	Product Breakdown of equipment
Appendix B:	HW Level Maintenance Definition
Appendix C:	TSGT/ UTSGT PMI Instructions
Appendix D;	ATE Equipment Lists
Appendix E:	PMI Activity Report Template
Appendix F:	Key Personnel Requirements

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

IFB-CO-115401-TSGT-ISS

Prospective Contract

NATO Transportable Satellite Ground Terminals Third Generation (TSGT3G) and Upgraded Transportable Satellite Ground Terminals (UTSGT) In-Service Support Activities

Book II Part II

Prospective Contract Special Provisions

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

- 1.1 Article 2 “ORDER OF PRECEDENCE” replaces Clause 1 “Order of Precedence” of the Contract General Provisions.
- 1.2 Article 4 “TYPE OF CONTRACT AND PRICE BASIS” augments Clause 7 “Firm Fixed Price Contract” of the Contract General Provisions.
- 1.3 Article 5 ” augments Clause 16 “Changes” of the Contract General Provisions.
- 1.4 Article 7 “PRICING OF CHANGES, AMENDMENTS, OPTIONS, FOLLOW-ON CONTRACTS AND CLAIMS” augments Clause 19 “Pricing of Changes, Amendments and Claims” of the Contract General Provisions.
- 1.5 Article 8 “PARTICIPATING COUNTRIES” augments Clause 9 “Participating Countries” of the Contract General Provisions.
- 1.6 Article 13 “SECURITY” augments Clause 11 “Security” of the Contract General Provisions.
- 1.7 Article 14 “ACCEPTANCE OF DOCUMENTATION AND SERVICE” augments Clause 21 “Inspection and Acceptance of Work” of the Contract General Provisions.
- 1.8 Article 14 “ACCEPTANCE OF DOCUMENTATION AND SERVICE” augments Clause 22 “Inspection and Acceptance of Documentation” of the Contract General Provisions.
- 1.9 Article 15 “INVOICES AND PAYMENT” augments Clause 25 “Invoices and Payment” of the Contract General Provisions.
- 1.10 Article 16 “LIQUIDATED DAMAGES” augments Clause 38 “Liquidated Damages” of the Contract General Provisions.
- 1.11 Article 21 “PERFORMANCE GUARANTEE” replaces sub-clauses 8.1 and 8.5 “Performance Guarantee” of the Contract General Provisions.
- 1.12 Article 23 “SUB-CONTRACTS” augments Clause 10 “Sub-contracts” of the Contract General Provisions.

2 ORDER OF PRECEDENCE

- 2.1 This Article replaces Clause 1 of the Contract General Provisions.
- 2.2 In the event of any inconsistency in language, terms or conditions of the various parts of this Contract, precedence will be given in the following order:
 - 2.2.1 The Signature Page;
 - 2.2.2 The Contract Schedule of Supplies and Services, Part I;
 - 2.2.3 The Contract Special Provisions, Part II;
 - 2.2.4 The Contract General Provisions, Part III;
 - 2.2.5 The Statement of Work, Part IV;

2.2.6 The Annexes to the Statement of Work.

3 SCOPE OF WORK

- 3.1 The scope of this procurement is to provide In-Service Support of the NATO Family of Transportable Satellite Ground Terminals (TSGTs). This contract will provide for a fixed number of scheduled services, executed at the Peace Time Location (PTL) of the systems throughout NATO.
- 3.2 In order to fulfil that purpose the Contractor shall deliver, in consideration for the prices specified in the Schedule of Supplies and Services, in the manner and at the time and location specified and in accordance with the specifications and descriptions set forth in the Statement Of Work.
- 3.3 The agreement and signature of this Contract by the Parties neither implies an obligation on either part to extend the Contract beyond the specified scope or terms, nor to prohibit the Parties from mutually negotiating modifications thereto.

4 TYPE OF CONTRACT AND PRICE BASIS

- 4.1 This Article augments Clause 7 of the Contract General Provisions.
- 4.2 This is a Firm Fixed Price Contract except for CLIN 2, which are NTE quantities and ceiling price. For CLIN 2, the unit price are firm-fixed.
- 4.3 The priced Schedule of Supplies and Services of the present Contract (Part I), driven by major Contract Line Items (CLINs), lists all services, their due date, the place of delivery, as well as their fixed rate and/ or not-to-exceed ceiling price (where applicable).
- 4.4 The prices established for every CLIN, including the Optional CLINs, are firm-fixed and not-to-exceed ceiling (where applicable) and **all-inclusive** for the whole Period of Performance of the Contract and for any extensions thereof.
- 4.5 The total Firm Fixed Price and Not-To-Exceed ceiling prices (where applicable) of this Contract includes all the service costs (one-off and recurring) incurred by the Contractor in fulfilment of the CLINs in the Schedule of Supplies and Services, and the requirements in the Statement of Work, in terms of In-Service Support Management (Section 3), In-Service Support Activities (Section 4) and Equipment Maintenance (Section 5). This includes all travel, per diem and accommodation costs associated with travels between NATO Locations and the Contractor's own premises, wherever it executes the Contract, and wherever the Contractor considers necessary to execute its tasking, or that is required for the execution of the Contract.
- 4.6 The Contractor obligates itself to ensure that all the services required by the Contract will be furnished within the Total Contract Price as stated on the Contract Signature Page. The Purchaser assumes no liability for costs incurred

by the Contractor in excess of the stated Firm Fixed Price and Not-To-Exceed ceiling prices (where applicable) of the Base Contract [Years 1 and 2], except as provided under other provisions of this Contract.

- 4.7 The Total Contract Price is Delivered 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. All supplies covered under this Contract, 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.

5 EFFECTIVE DATE OF CONTRACT AND PERIOD OF PERFORMANCE

- 5.1 The Contract shall come into force at the date specified in the Signature Sheet of the Contract, and such date is referred hereafter as the Effective Date of Contract (EDC).
- 5.2 The Period of Performance (PoP) of the base in-service phase of this Contract is 2 (two) years starting from EDC, as defined in Section 4 of the Statement of Work.
- 5.3 The Period of Performance may be extended by up to [1+1+1] 3 consecutive years, by exercise of the Options specified in Article 6 “OPTIONS” hereunder.
- 5.4 Start date of the Optional Years for fixed rate services will be notified to the Contractor at least 3 months prior to the commencement of provision of the services through formal Contract Amendment as detailed under Article 6.3 hereunder.

6 OPTIONS

- 6.1 The Purchaser may exercise Options to extend the Period of Performance of the Contract, and the Purchaser may exercise Options to purchase additional services, listed or not in the Schedule of Supplies and Services.
- 6.2 The Contractor understands that there is no obligation under this Contract for the Purchaser to exercise any of the optional line items and that the Purchaser bears no liability should it decide not to exercise the options (totally or partially).
- 6.3 [Years 3,4 and 5] in Part I Schedule of Supplies and Services represent Options to extend the Period of Performance for up to [3] additional periods of 12 months. The Purchaser shall notify the Contractor of its intent to exercise this Option within the timelines specified under Article 5.4. For each Option Year exercised, a Contract Amendment will be issued by the Purchaser confirming the notification previously provided and obligating an amount of funding for the total Contract value. The Contractor shall continue providing the services required under the Contract and will be compensated at the fixed rates specified for these Options in the Schedule of Supplies and Services. Prices for all optional line

items shall have a validity period that corresponds to the option exercise period cited above.

- 6.4 In addition to the above, the Purchaser reserves the right to order any foreseeable or additional Contract tasks or deliverables, listed or not, either occasionally or at a further stage in the life of the project, which it deems necessary for the successful completion of the project. The additional tasks and/or deliverables shall be priced in using the pricing details and rates per CLIN and price category (Labour/Services/Travel/ODC/Rates) provided by the Contractor as part of its Price proposal (Bidding Sheets) and included in this Contract by reference, in accordance with the provisions of Article 7 below.
- 6.5 The Purchaser may, in writing, place an order for such additional tasks throughout the entire Contract period of performance. 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.

7 PRICING OF CHANGES, AMENDMENTS, OPTIONS, FOLLOW-ON CONTRACTS AND CLAIMS

- 7.1 This Article augments Clause 19 of the Contract General Provisions.
- 7.2 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.
- 7.3 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.
- 7.4 Contractor's pricing proposals shall be fair and reasonable and subject to agreement at the time when the change is ordered.
- 7.5 Contractor price quotations for Contract changes or modifications shall be provided at no cost to the Purchaser and shall have a minimum validity period of six (6) months from submission.
- 7.6 The pricing information contained in the cost breakdown sheets submitted with the Bidding Sheets, as part of the Contractor's Price Proposal, such as the forward labour rates, overhead and profit rates, will constitute the basis for Contractor's pricing proposals for Changes and Claims, and any future negotiations related to possible future amendments to this Contract. The Contractor will use all reasonable endeavours to maintain the prices specified therein. Changes to these prices shall be accompanied with documentation and explanation of the change.

- 7.7 Contractor's pricing proposals shall be established in the currency of the Contract as stated on the Signature Page. Prices may also be stated in any currency of the Participating NATO Countries provided that, and only to the extent that, the Contractor has expenses in the currency directly related to the current Contract.
- 7.8 Each Contractor's pricing proposal shall be accompanied by the certifications required by Clauses 19.6 and 19.7 of the Contract General Provisions.

8 PARTICIPATING COUNTRIES

- 8.1 This Article augments Clause 8 of the Contract General Provisions.
- 8.2 The following NATO member nations have agreed to fund this acquisition effort: (in alphabetical order):
ALBANIA, BELGIUM, BULGARIA, CANADA, CROATIA, CZECH REPUBLIC, DENMARK, ESTONIA, FRANCE, GERMANY, GREECE, HUNGARY, ICELAND, ITALY, LATVIA, LITHUANIA, LUXEMBOURG, MONTENEGRO, NETHERLANDS, NORTH MACEDONIA, NORWAY, POLAND, PORTUGAL, ROMANIA, SLOVENIA, SLOVAKIA, SPAIN, TURKEY, THE UNITED KINGDOM and THE UNITED STATES.
- 8.3 The Contractor may issue sub-contracts to firms and purchase from qualified vendors from any participating NATO member nation. None of the work, including project design, labour and services, shall be performed other than by firms from and within Participating Countries, as per NATO policy.
- 8.4 The Contractor shall notify in writing to the Purchaser immediately upon being informed of any change in the nationality of its Sub-contractor(s) which would prevent the Contractor from further complying with Article 8.3 above. Upon receipt of this information from the Contractor, the Purchaser may, within three months from this notification, require the Contractor to find an alternate subcontractor, complying with the requirements set out in Article 8.3 above.
- 8.5 Unless authorised by NATO Policy, no material or items of equipment down to and including identifiable sub-assemblies delivered under this Contract shall be manufactured or assembled by a firm other than from and within a Participating Country.
- 8.6 The Intellectual Property Rights to all designed documentation and system operating software shall reside in Participating Countries, and no license fee, or royalty charges shall be paid by the Contractor to firms, individuals or governments other than within the Participating Countries community.

9 CONTRACT ADMINISTRATION

- 9.1 The Purchaser is the NATO CI Agency (NCI Agency). The Purchaser is the Point of Contact for all Contractual and Technical issues. The Purchaser reserves the

right to re-assign this Contract to a representative(s) for administrative purposes, in whole or in part, provided that the Purchaser shall always be responsible for its obligations under the Contract and for actions or lack of actions of its assigned administrator. The Purchaser undertakes to advise the Contractor in writing whenever this right is to be exercised.

- 9.2 The Contractor shall accept Contract modifications only in writing from the Purchaser’s Contracting Authority.
- 9.3 All notices and communications between the Contractor and the Purchaser shall be written and conducted in English. Contract modifications only become valid when received in writing from the General Manager, NCI Agency, and/or the NCI Agency Contracting Authority.
- 9.4 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. Fax, email or other electronic means may be used to provide an advance copy of a formal letter or notice which shall subsequently be delivered through the formal communications means.
- 9.5 Informal notices and informal communication may be exchanged by any other means, including telephone or email. All informal communication must be confirmed by a formal letter or other formal communication to be contractually binding.
- 9.6 All notices and communication shall be effective upon receipt.
- 9.7 Official Points of Contact (POC) are:

Purchaser	Contractor
NCI Agency ACQ Directorate Boulevard Leopold III B-1110 Brussels Belgium	<i>[To be completed at award]</i>

<p>For contractual matters:</p> <p>Attn: Tiziana Pezzi Title: Principal Contracting Officer E-mail: Tiziana.Pezzi@ncia.nato.int</p> <p>Cc: Irina Barbancea & Frank Iyakaremye Title: Contracting Officer E-mail: Irina.Barabancea@ncia.nato.int Frank.Iyakaremye@ncia.nato.int</p>	<p>For contractual matters: [...]</p> <p>Attn: Title: Tel: E-mail:</p> <p>Cc: Title: Tel: E-mail:</p>
<p>For project management matters:</p> <p>Attn: Matthew Watson Title: Senior Project Manager E-mail: Matthew.Watson@ncia.nato.int</p> <p>For technical matters:</p> <p>Attn: Ken Murphy Title: Service Delivery Manager E-mail: Kenneth.Murphy@ncia.nato.int</p>	<p>For technical/ project management matters:</p> <p>Attn: Title: Tel: E-mail:</p>

10 TECHNICAL DIRECTION

- 10.1 The Contract will be administered by the Purchaser in accordance with the Article 9 of these Contract Special Provisions.
- 10.2 Contractor’s personnel working on this Contract shall perform the effort within the general scope of work identified in the Statement of Work. This effort will be directed on a more detailed level by the Purchaser’s Project Manager identified under Article 9.7, who will provide detailed tasking and instruction on how to proceed.
- 10.3 The Purchaser reserves the right to assign a Technical Representative(s) who will monitor work in progress and provide Contractor personnel with instructions and guidance (within the general scope of work) in performance of their duties and working schedule.
- 10.4 Neither the Purchaser’s Project Manager, nor the Technical Representative(s) have the authority to change the terms of the Contract or to increase the overall cost, duration or level of effort of the Contract.
- 10.5 In case the Contractor has reasons to believe that any technical direction received from the Project Manager or the Technical Representative(s) constitutes a change to the terms, conditions and/or specifications of the Contract, the Contractor shall immediately inform in writing the NCI Agency

Contracting Authority, who will either confirm or revoke such direction within two weeks after notification by the Contractor.

- 10.6 If such direction is confirmed as a change, this change will be formalised by written amendment to the Contract pursuant to Clause 16, “Changes”, of the NCI Agency Contract General Provisions.
- 10.7 Failure of the Contractor to notify the NCI Agency Contracting Authority of the direction constituting change of the Contract, within the timelines specified in Clause 16.9 of the NCI Agency Contract General Provisions, will result in a waiver of any claims pursuant to such change.
- 10.8 All changes to the service management documentation, including the implementation schedules, agreed between the parties shall bear a formal version number and a date from which the change applies.
- 10.9 Notwithstanding the above, service management documentation, particularly any implementation schedule such as In-Service Support Plan (ISSP), shall not affect the original delivery dates as specified in the Schedule of Supplies and Services, nor waive the associated Liquidated Damages.
- 10.10 The Purchaser will bear no liability for changes to the Contract which are not expressly authorized by the Contracting Authority in writing.
- 10.11 Similarly the Purchaser shall not be liable for costs incurred by the Contractor resulting from changes in Contract performance authorized by other than the Contracting Authority.

11 KEY PERSONNEL

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

POSITION	NAME
ISS Manager	<i>[To be completed at award]</i>
Project Manager (PM)	<i>[To be completed at award]</i>
Technician 1	<i>[To be completed at award]</i>
Technician 2	<i>[To be completed at award]</i>
Technician 3	<i>[To be completed at award]</i>

11.2 The Contractor’s key personnel assigned to the present Contract shall remain working on the Contract for as long as required by the terms of the present Contract. However, in the event where the Contractor has no control over the individual’s non-availability (e.g., resignation, sickness, incapacity, etc.), the Contractor shall notify the Purchaser of the prospective vacancy with no delay, and must nominate, with no additional costs for the Purchaser, a substitute(s) of

equivalent or higher qualification and experience within 15 working days of the date at which the Contractor has knowledge of the loss of service of such key personnel. The replacement personnel shall be made available for the Contract upon Purchaser acceptance of the proposed substitute.

- 11.3 The Purchaser may consider any application raised by the Contractor for changes in the key personnel, provided that all the following conditions are met:
- i. The Contractor shall guarantee an overlap/handover period of minimum two (2) weeks at no additional cost to the Purchaser,
 - ii. The CV of the replacement personnel is provided, which allows the Purchaser to assess whether the proposed substitution meets the conditions related to the skill and experience requirements of the key personnel identified in the Statement of Work,
 - iii. The corporate knowledge of the team is preserved after the replacement.
- 11.4 The Purchaser will confirm any consent given to a substitution in writing through an Amendment to the Contract stating the effective date of change of personnel, and only such written consent shall be deemed as valid evidence of Purchaser consent.
- 11.5 The Purchaser has the right to refuse any proposed substitution if not meeting the qualifications and request the Contractor to offer another qualified individual in lieu thereof.
- 11.6 The Purchaser reserves the right to reject a Contractor's staff member after acceptance of a Contractor's staff member on the basis of his/her CV if the individual is not providing the required level of support. The Purchaser will inform the Contractor in writing in case such a decision is taken and the Contractor shall propose and make another staff member available within three working days after the written notification, at no additional costs to the Purchaser.
- 11.7 Delays by the Contractor in replacements exceeding two weeks and causing a lower level of Contractor effort and/or performance will be penalised in accordance with Clause 38 of Contract General Provisions.
- 11.8 In addition to the Article 11.6 above, if the Contractor is unable to nominate and/or replace the lost personnel within the timeframe mentioned in Article 11.2 above, the Purchaser may conclude that the loss of the Key Personnel endangers progress under the Contract to the extent that the Purchaser may resort to the Clause 39 – "Termination for Default" of the Contract General Provisions for redress of the situation.

12 INDEPENDENT CONTRACTOR

- 12.1 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.

- 12.2 The Purchaser shall not be responsible for securing work permits, visas, leases nor tax declarations, driving permits, etc., with national or local authorities.
- 12.3 Contractors personnel employed under this Contract are not eligible for any diplomatic privileges or for NATO employee benefits.
- 12.4 The Contractor is responsible for providing the necessary insurance for his personnel and equipment as needed in the area of operations and for performing the Contract, without any cost to the Purchaser.
- 12.5 The Contractor shall inform his employees under this Contract of the terms of the Contract and the conditions of the working environment.

13 SECURITY

- 13.1 This Article augments Clause 11 of the Contract General Provisions.
- 13.2 The security classification of this Contract is “NATO UNCLASSIFIED”.
- 13.3 In the performance of all works under this Contract it shall be the Contractor’s responsibility to ascertain and comply with all applicable NATO security regulations as implemented by the Purchaser and by the local authorities.
- 13.4 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.
- 13.5 All NATO CLASSIFIED material entrusted to the Contractor shall be handled and safeguarded in accordance with applicable security regulations.
- 13.6 The Contractor will be required to handle and store classified material to the level of “NATO SECRET”.
- 13.7 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.
- 13.8 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.

13.9 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.

14 ACCEPTANCE OF DOCUMENTATION AND SERVICE

14.1 This Article augments Clauses 21 and 22 of the Contract General Provisions.

14.2 Acceptance of Documentation delivered under this Contract will be made according to Clause 22 – “Inspection and Acceptance of Documentation” of the Contract General Provisions and Contract Statement of Work Sections 3 “In-Service Support (ISS) Management”.

14.3 Acceptance of Service delivered under this Contract will be made according to Clause 21 – “Inspection and Acceptance of Work” of the Contract General Provisions and Section 5.1.1. “Preventive Maintenance Intervention (PMI)” of the Statement of Work.

14.4 The acceptance by the Purchaser of the Contractor's design documentation required by this Contract signifies that the documents delivered appear logical and consistent. The acceptance does not constitute an endorsement or approval of the design by the Purchaser and does not relieve the Contractor of the obligation to meet the performance requirements of this Contract in the event that the design eventually proves to be non-compliant in site testing and follow-on service delivery.

15 INVOICES AND PAYMENT

15.1 This Article augments Clause 25 of the Contract General Provisions.

15.2 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.

15.3 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.

15.4 No payment will be made if CLIN items agreed for delivery before milestones are not complete as described in bidding sheets, SSS and SoW.

15.5 No payment shall be made with respect to undelivered supplies; works not performed, services not rendered and/or incorrectly submitted invoices.

15.6 No payment will be made for additional items delivered that are not specified in the contractual document.

- 15.7 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.
- 15.8 CLINs will be paid as below based on Purchaser milestone approval in writing.
- 15.9 The Contractor shall be entitled to submit invoices as follows:

CLIN	Description	Payment
CLIN 1	As described SSS (Base years 2022-2023) and Purchaser's Acceptance of the Q Reports	CLIN 1 total amount divided by quarter Quarterly: end of each trimester of each year: March, June, September, December
CLIN 2	Successful Completion and Acceptance of PMI TSGT – T1	Per each PMI as per SSS unit price
CLIN 2	Successful Completion and Acceptance of PMI TSGT – T2	Per each PMI as per SSS unit price
CLIN 2	Successful Completion and Acceptance of PMI UTS GT	Per each PMI as per SSS unit price

- 15.10 The Contractor shall render all invoices in a manner, which shall provide a clear distinction between the costs associated with each CLIN, consistent with their separation in the Schedule of Supplies and Services of this Contract.
- 15.11 Where applicable, charges shall be at the Unit Prices and currencies specified in the SSS multiplied by the number of units delivered. Supporting documentation detailing the units delivered shall be attached to the invoice.
- 15.12 Evidence of the acceptance by the Purchaser shall be attached to all invoices.
- 15.13 The Purchaser is released from paying any interest resulting from any reason whatsoever.
- 15.14 All invoices must reference the following information. 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:
 - a) Contract number CO-115401-TSGT-ISS;
 - b) Contract Amendment number (if any);
 - c) Purchase Order number specified in the Contract or Amendment Signature Sheet (TBD at Contract Award);
 - d) The identification of the performance rendered in terms of Contract Line Item Numbers (CLINs) and relevant sites as they are defined in the priced Schedule of Supplies and Services;
 - e) Number of units, price per unit, currency;

- f) Bank account details for international wire transfers (SWIFT, BIC, IBAN);
- g) Payment conditions in line with the Contract (Article 15.20 below);
- h) The certificate below that shall be signed by a duly authorised company official on the designated original:

“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.

*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.”*

- 15.15 If during any Quarter, the Purchaser has exercised Option(s) as per Article 6, the Invoice shall provide the CLIN and the quantities provided multiplied by the Unit Price.
- 15.16 Payments for services and deliverables shall be made in the currency stated by the Contractor for the relevant Contract Line Item.
- 15.17 The Purchaser is released from paying any interest resulting from any reason whatsoever.
- 15.18 The invoices shall be submitted by email to the following POCs:
 - a) accountspayable@ncia.nato.int ;
 - b) Contracting Authority under Article 9.7.
- 15.19 Unless otherwise specified, the Contractor shall prepare and submit its invoices solely by electronic means (without paper submission). Contractor’s invoices submitted by electronic means shall be in a static, non-modifiable format (such as PDF, other). The Contractor shall ensure the accuracy, authenticity of the origin and legibility of any invoice submitted by electronic means.
- 15.20 NCI Agency will make payment within sixty (60) days of receipt by the NCI Agency of a properly prepared and documented invoice.

16 LIQUIDATED DAMAGES AND LATE DELIVERY PENALTIES

- 16.1 This Article augments Clause 38 of the Contract General Provisions.
- 16.2 If the Contractor fails to:

- 16.2.1 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
- 16.2.2 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 15 of the Contract Special Provisions.
- 16.3 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.
- 16.4 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.
- 16.5 Liquidated damages shall be payable to the Purchaser from the first day of delinquency and shall accrue at the afore-mentioned rate 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.
- 16.6 The amount of Liquidated Damages and Penalties 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.

17 SUPPLEMENTAL AGREEMENT(S), DOCUMENTS AND PERMISSIONS

- 17.1 The Contractor has submitted all relevant draft supplemental agreement(s), documents and permissions prior to Contract award, the execution of which by the Purchaser is/are required by national law or regulation. If any supplemental agreements, documents and permissions are introduced after Contract award, 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 Conditions.

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

18 COMPREHENSION OF CONTRACT AND SPECIFICATIONS

- 18.1 The Contractor warrants that he has read, understood and agreed to each and all terms, clauses, specifications (including drawings) 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.
- 18.2 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 availability and performance requirements of the said specifications.
- 18.3 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:
- 18.3.1 based upon impossibility of performance, defective, inaccurate, impracticable, insufficient or invalid specifications, implied warranties of suitability of such specifications, or
- 18.3.2 otherwise derived from the aforesaid specifications,
- 18.3.3 and hereby waives any claims or demands so based or derived as might otherwise arise.
- 18.4 Notwithstanding the “Changes” Clause or any other Clause of the Contract, the Contractor hereby agrees that no changes to the aforesaid specifications which may be necessary to permit achievement of the performance requirements specified herein for the Contractor’s proposed work shall entitle the Contractor

either to any increase in the fixed price as set forth in this Contract or to any extension of the delivery times for the work beyond the Period of Performance in the Schedule of Supplies and Services.

19 RIGHTS IN TECHNICAL DATA

- 19.1 For the purpose of this clause, “technical data” is defined to mean all recorded information of a technical nature to support maintain or operate the services being purchased under this Contract. It is to include, but is not limited to, technical literature such as text in manuals, drawings, design documents, equipment instructions, illustrations, schematics or wiring diagrams, test procedures, parts lists, computer software etc.
- 19.2 The Contractor hereby grants to NATO the unrestricted rights without further payment to use, duplicate or disclose, in whole or in part, any technical data, resulting directly from the performance of this Contract for NATO purposes.
- 19.3 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.

20 CARE AND DILIGENCE OF PROPERTY - RISK OF LOSS

- 20.1 The Contractor shall use reasonable care to avoid damaging building, equipment, and vegetation (such as trees, shrub and grass) on the work site.
- 20.2 If the Contractor damages any such building or equipment, it shall repair the damage as directed by the Purchaser and at no expenses to the Purchaser. If it 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.
- 20.3 The Purchaser shall exercise due care and diligence for Contractor's and Purchaser's equipment, tools and materials at each Node (site) supplied and/or used for the performance of this Contract. Notwithstanding anything to the contrary herein contained in this Contract, the Purchaser will not assume any liability for damages occurring to or occasioned by said equipment, tools and materials except for gross negligence or wilful misconduct of the Purchaser or his servants, agents or subcontractors.

21 PERFORMANCE GUARANTEE

- 21.1 This Article replaces the Contract General Provisions Clause 8 – “Performance Guarantee” sub-clauses 8.1 and 8.5.
- 21.2 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 specified in the Contract Signature Sheet and Article 4 above. In case the Part I Schedule of Supplies and Services Option to extend the Period of Performance is exercised under the provision 6.3 above, the value of the Performance Guarantee shall be adjusted to ten per cent (10%) of the Total Value of the Contract for the Optional Year.
- 21.3 The Contractor shall request in writing relief from the Performance Guarantee upon expiration of the Period of Performance as specified under Article 5 above, and such relief may be granted by the Purchaser.
- 21.4 The Purchaser shall not bear any liability related to financial guarantees, which the Contractor is required to provide under this Contract.

22 LANGUAGE OF WORK

- 22.1 The working language of the Project Team is English and the associated technical documents are delivered in English. All Contractor’s personnel engaged in this project shall have a thorough knowledge of the English language.
- 22.2 Failure to satisfy this requirement may be the basis for Purchaser’s request of change of personnel.

23 SUB-CONTRACTS

- 23.1 This Article augments Clause 10 of the Contract General Provisions.
- 23.2 The Contractor warrants the following:
- 23.2.1 that it and its Sub-Contractors have been duly authorised to provide the required services and do business with NATO;
- 23.2.2 that it and its Sub-Contractors have obtained or shall obtain all necessary licenses and permits required in connection with the Contract;
- 23.2.3 that it and its Sub-Contractors shall fully comply with all the laws, decrees, labour standards and regulations that are applicable during the performance of the Contract;
- 23.2.4 that no claim for additional moneys with respect to any authorisations to perform shall be made upon NATO;

23.2.5 that the Contractor has flown down to the subcontracts the prime Contract provisions deemed necessary to meet the requirements of the Contract (eg security, liabilities, termination terms etc).

24 OPTIMISATION

24.1 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.

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

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

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

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

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

24.3.4 A fully detailed proposal of any capital investment necessary to achieve the savings;

24.3.5 A schedule of how the changes would be implemented with minimal negative impact to on-going performance and operations.