

NATO Improved Link Eleven (NILE)

LINK 22



CUSTOMER INFORMATION GUIDE (CIG)



**NATO Improved Link Eleven (NILE)
Project Management Office (PMO)**

PMW 150

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Section 1 - Introduction

1.1 Purpose of the CIG

This NILE/Link 22 Customer Information Guide (CIG) is provided by the NATO Improved Link Eleven (NILE) Project Management Office (PMO), on behalf of the NILE Steering Committee (SC), as an aid to Prospective Third Party Sales (3PS) Nations interested in acquiring Link 22 capability by obtaining the NILE Products.

The governments of Canada, France, Germany, Italy, Spain, United Kingdom and the United States of America are participants in a Memorandum of Understanding (MOU) to develop and sustain the core products necessary to meet the NATO requirements for Link 22. These seven nations are referred to as the “NILE Nations.” Netherlands was one of the initial MOU Participants and therefore has legal rights to some of the intellectual property originally developed within this project.

Link 22 is now in operational service in several NILE and Link 22 Partner Nations and international testing and implementation continues. In accordance with the NILE MOU and NILE 3PS Document, all Participants (i.e., NILE Nations) are entitled to engage in a third party sale or transfer of NILE foreground information (software, hardware and/or documentation produced by the NILE Project) with the unanimous consent of the other Participants.

A Third Party (3P) is any person or other entity whose government, or entity thereof, that is not a Participant of the NILE MOU.

A “Prospective” 3PS Nation is a nation/entity which is interested in applying to obtain NILE Products.

A 3PS Nation is a nation/entity which has been approved by the NILE Nations and Netherlands to receive the NILE Products, but is still in the approval process for COMSEC under USA FMS Procedures and/or has not paid all levies and BCR fees.

A Link 22 Partner Nation is a nation which has been approved for receiving NILE Products and COMSEC under USA FMS Procedures, and has paid all levies and BCR fees.. Required fees are discussed in more detail in section 3.

This document provides an overview of Link 22 and guidance on how to obtain the NILE Products (Annex B, Part I) that are funded by the NILE Nations and managed by the NILE PMO.

1.2 History of the Project

During the late 1980s, NATO, agreeing on the need to improve the performance of Link 11, produced a Mission Need Statement that became the basis for the establishment of the NILE Project.

The Link 22 operational requirements are defined in the NATO Staff Requirement dated 9 March 1990. The system, functional and performance requirements are defined in the NATO Elementary Requirements Document dated 12 Dec 1994.

The Project specified a new tactical message standard in the NATO STANdardization AGreement [STANAG 5522, ATDLP 5.22] to enhance data exchange. The project also

developed a new, layered communications architecture. This new data link was designated “Link 22.”

The Link 22 goals are to replace Link 11, thereby removing its inherent limitations; to improve allied interoperability; to complement Link 16; and to enhance the commanders’ war fighting capability.

1.3 Basic System Description

The CIG intends to provide only a brief technical overview of the Link 22 System, as more detailed information can be found in the Link 22 Guidebook as follows:

- a. “Link 22 Guidebook – (Overview; Includes Chapter 1 and Appendices A, E, F & G); it can be obtained by contacting the NILE PMO (PMW_150_NILE_PMO.fct@navy.mil);
- b. “Link 22 Guidebook” (Overview and Operations; Chapters 1 & 2, Appendices A, B, E, F & G); can be provided to a 3PS Nation in advance of fee payments, but only after the NILE Nations and NLD have approved a 3PS request for the NILE Products; and
- c. “Link 22 Guidebook” (Complete Guidebook); for NILE Nations, their approved contractors / industry suppliers, and Link 22 Partner Nations and their respective contractors..

The design of Link 22 uses a layered communications stack approach to produce an open system architecture, with well-defined interfaces between the components. This approach maximizes extensions and enables contributions from multiple providers.

The inner grey box in Figure 1 below indicates the NILE Communications Equipment (NCE) system components that consist of the following:

- a. System Network Controller (SNC);
- b. Link 22 Modernized Link Level COMSEC (LLC 7M);
- c. Signal Processing Controllers (SPCs); and
- d. Radios.

The Link 22 system, shown by the outer green box in Figure 1, consists of the NCE and the Link 22 portion of the Data Link Processor (DLP). Within the DLP, the Link 22 system consists of the interface to the SNC and the handling of the tactical messages that the system transmits and receives on the data link. The tactical messages are defined in ATDLP-5.22. The DLP is connected to, or is part of, the Tactical Data System (TDS), also known as the host system of the NILE Unit (NU), which processes the received tactical messages and generates tactical messages for transmission in accordance with the unit’s national requirements. Additionally, a Time of Day (TOD) source that meets Link 22 requirements is required.

All NILE interface specifications and the SNC have been jointly defined, designed and developed by the NILE Nations. The USA completed development of the LLC 7M and the National Security Agency (NSA) certified the unit in February 2016.

The development or purchase of all other Link 22 subsystems, including the TDS/DLP, TOD, SPC and Radio, is a national responsibility, as is the integration of all subsystems to obtain an operational Link 22 system.

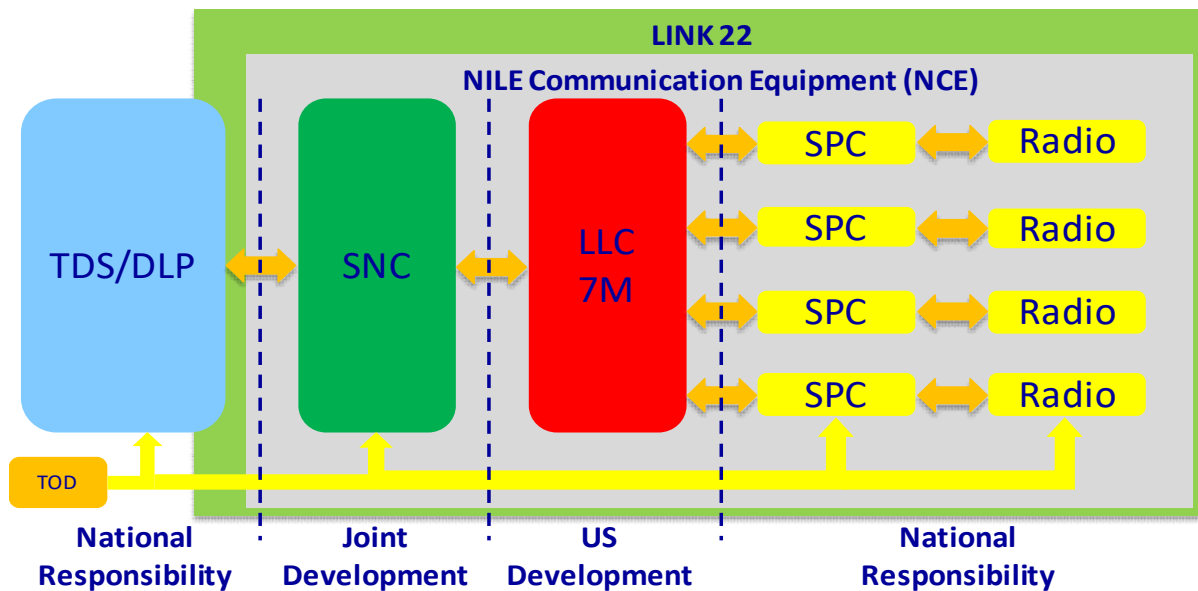


Figure 1- Link 22 System with NILE Communication Equipment

1.4 Why Link 22?

A detailed comparison of Link 22 with two other globally implemented Tactical Data Links (TDL) by NATO and non-NATO countries, namely Link 11 and Link 16, is included in Chapter 1 of the Link 22 Guidebook. A key note regarding Link 22 is that it was designed and constructed to replace Link 11 and to complement Link 16. Specifically, the key enhancements with Link 22 are:

- Beyond Line of Sight (BLOS) communication without a requirement for a satellite, with High Frequency (HF) and Ultra High Frequency (UHF) Line of Sight (LOS);
- For UHF media, there are two different transmission modes: Fixed Frequency (FF) or frequency hopping in the Electronic Protection Measures (EPM) mode, which provides anti-jamming;
- A variety of waveforms that offer different compromise between resilience and throughput to adapt to every propagation condition;
- Automatic relay between all NILE Units (NUs) in a Super Network using available networks without the need of an airborne relay;
- A Super Network can have up to eight networks and 125 units. Each network in a Super Network could use any combination of media and transmission mode;

- f. Each unit can participate in a maximum of four networks simultaneously;
- g. Network Management is highly automated, relatively simple and includes features such as dynamic bandwidth allocation;
- h. Does not use a Net Control Station (NCS). Designed with no single point of failure;
- i. Link 22 messages are part of the J-series family (specifically F and F/J messages). Link 22 uses the same data dictionary as Link 16 and thus makes translation and forwarding relatively easy compared to Link 11;
- j. Data items are designed with improved ranges and granularity by using the same data dictionary as Link 16; e.g. Geodetic (lat / long / alt);
- k. Nodeless Time Division Multiple Access (TDMA), without Network Time Reference (NTR);
- l. Dynamic TDMA (DTDMA) for congestion management;
- m. Secure with LLC 7M COMSEC which uses integrity and time-based encryption;
- n. Rate: up to 12,666 bps for single UHF network/ 9,600 bps for single HF network; 44,532 bps for 2UHF and 2 HF networks; Range more than 1000 nm;;
- o. LNE (Late Network Entry) capability;
- p. Addressing mechanisms (i.e., Totalcast, Neighborcast, Mission Area Sub Network (MASN), Dynamic List for two to five units or Point-to-Point);
- q. Transmission Request (TR) prioritization to reduce congestion delay for important messages; and
- r. Automatic retransmissions based on the link quality to provide the requested probability of reception for messages.

Section 2 - 3PS Application Process

2.1 Purpose

This document describes the procedure for the sale and/or transfer of NILE Products to a 3PS Nation in accordance with the provisions of the NILE Design and Development (D&D) and In-Service Support (ISS) Memoranda of Understanding (MOUs), and the NILE 3PS Document.

The procedures contained herein are intended to apply to the sale and/or transfer of NILE Products. There are two fees that apply to the sale and/or transfer of NILE Products: levies and BCR fees. These fees are further explained in section 3.

2.2 Governing Principles

As governed by the NILE Project MOU, the distribution of NILE foreground information is controlled. Specifically, NILE Nations may not sell, transfer title to, disclose, or transfer possession of project foreground information, any equipment embodying such information, or jointly acquired or produced project equipment to any 3PS Nation without the prior written consent of the other NILE Nations. In addition, no NILE Nation will permit any such sale, disclosure, or transfer, including by the owner of the item, without the prior written consent of the other NILE Nations. Such consent will not be given unless the government(s) of the intended recipient(s) agree(s) in writing that it will:

- a. Not re-transfer, or permit the further re-transfer of, any equipment or information provided; and
- b. Use, or permit the use of, the equipment or information provided only for the purposes specified by the NILE Nations.

For the United States, there are specific additional requirements under the International Traffic in Arms Regulation (ITAR). ITAR is the regulation implementing laws under the US Arms Export Control Act, and this act requires that all transfers of US-owned military information must be approved by the US Department of State (DoS). Specifically, for the purposes of this document, any movement of NILE material outside of the US is considered a Third Party Transfer (TPT) and requires a US DoS license. All such NILE material will contain ITAR markings to this effect.

Obtaining the written consent of NILE Nations will be coordinated by the NILE PMO through the NILE SC representatives. In relation to acquisition of the LLC 7M COMSEC, prior USA approval must be obtained. In the USA, a government-to-government sale or transfer of defense articles and services to a foreign nation is via a Foreign Military Sale (FMS) case. The FMS case must also contain an annual payment for BCR Fees, which assists in the maintenance of the NILE Products.

2.3 *What is a NILE Product or Service?*

The following is a very high-level list of the NILE Products that require the payment of fees to the NILE Project and/or the NILE Nations prior to transferring to a 3PS Nation/customer, along with the means that it can be acquired. All NILE Products are contained in the 3PS version of NILE BCR DVD, which is distributed at least once every two years

NILE Product	Delivery / Method for Acquisition
Initial NILE SW (SNC and NRS), NILE Project Documentation	After Payment of all Levies are confirmed
NILE BCR DVD Updates	After USA – FMS Case (BCR Fees) is implemented

The following is a high-level list of NILE Services:

NILE Service	Delivery / Method for Acquisition
Failure Report process	Bundled with BCR Fees
Link 22 Training course (once a year, limitations might apply)	Bundled with BCR Fees
Configuration Control Board meeting (biannual meeting – Partner Nations can attend as “Observer”, Limitations might apply)	Bundled with BCR Fees
Technical & Operational Working Group meeting (biannual meeting - for NILE & Partner Nations)	Bundled with BCR Fees

The following is a very high-level list of non-NILE Products that will need to be developed and/or acquired to have a complete and functional Link 22 system.

Non-NILE Product	Delivery / Method for Acquisition
DLP, TOD source, SPC and Radio	National responsibility. Acquired through one or more vendors; or by each customer, developing their own products using the NILE specifications (from the NILE PMO) in conjunction with the related STANAGs
LLC 7M Operator Training Course	Via USA – FMS Case (COMSEC Purchase)
NATO STANAGS and NATO Publications	National responsibility. The request has to be sent to NATO
COMSEC device (LLC 7M)	Via USA – FMS Case (COMSEC Purchase)
COMSEC keys	Via USA – COCOM/CONAUTH request

A complete listing of all the NILE Products included in the NILE BCR can be found in Annex B, Part I.

2.4 Application Process

A Sponsoring Nation (SN) will request the sale and/or transfer of NILE Products. The SN is selected by the Prospective 3PS Nation, and must be a non-USA NILE Nation. The key steps in this process are as follows:

- a. The first step is for the Prospective 3PS Nation to apply for membership in the Link 22 Communications and Interoperability Working Group (CIWG). This membership allows the Prospective 3PS Nation to participate in meetings with the NILE PMO (and potentially other L22 nations) to discuss implementation, interoperability and any other topics the prospective 3P needs to address prior to making acquisition decisions. Procedures for applying for CIWG membership can be found on the following website: <http://www.link22.org/link22ciwg.html>.
- b. In order to procure Link 22 system components, a prospective 3PS nation must select a NILE Sponsor Nation (SN) which acts on their behalf. The SN for the initial application cannot be the USA due to US national laws.
- c. To start the process for 3PS approval, the SN will work with the Prospective 3P Nation to complete a NILE document called: Request for Sale/Transfer of NILE Products. Part 1 of this document provides specifics of the request, and allows the NILE PMO to begin processing the request.
- d. Once the request has been received, the NILE PMO will create a summary of the request and will calculate the levy amount involved in the proposed procurement. All sales of the BCR carry a levy, which must be distributed to the NILE Nations (excluding the USA) upon 3PS approval.

- e. To obtain 3PS approval, the NILE PMO will then forward the completed Request for Sale/Transfer of NILE Products to the NILE Nations and the Netherlands (NLD). NLD participated as a NILE Nation during the D&D Phase of the project, and as such is entitled to a 1/8th share of all levies.
- f. Concurrently with the request for 3PS approval (step c above), the SN will work with the Prospective 3PS Nation to complete and forward two documents required by the US Department of State (DoS) for all Third Party Transfers (TPT); an End User Agreement (EUA), and a TPT document containing 15 questions to be answered.
- g. To obtain NILE Products and COMSEC, the Prospective 3PS Nation must process an FMS case to the US Defense Security Cooperation Agency (DSCA) via their embassy. For USA approval of all Link 22 3PS requests, a Letter of Request (LoR) for Offer and Acceptance (LoA) must have been submitted by the Prospective 3PS Nation for BCR Fees and LLC 7M unit purchases.
- h. Once the NILE PMO has received all approvals the SN will be informed, will notify the Prospective 3PS Nation of the result and provide levy distribution instructions for all NILE Nations (plus NLD).
- i. Following the 3PS approval and confirmation of all non-US NILE Nations & NLD having received levy payments, the NILE PMO will provide the requested BCR(s) to the SN for transfer to the 3P nation.
- j. As the FMS case is implemented and executed, BCR updates and the LLC 7M devices will be provided to the 3P, now considered a Link 22 Partner Nation, from the USA in accordance with the terms of the FMS case.
- k. Following initial procurement and implementation of Link 22, a Link 22 Partner Nation may decide to procure additional BCR copies. To obtain additional BCR copies, the nation should re-enter the above process at Step b.

Section 3 - NILE Fees

3.1 Overview of Fees

In accordance with the NILE MOU and the NILE 3PS Document, there is a requirement for a 3PS Nation to pay fees after the NILE SC has approved a specific request for sale and/or transfer of NILE Products, and in advance of receiving the NILE Products. There are two fees that apply to the sale and/or transfer of NILE Products: levies and BCR Fees.

3.2 Levy

A levy will be included in the price offered to any Prospective 3PS Nation to recover non-recurring D&D costs. The levy is a one-time fee that shall be applied to each copy of SNC software sold for Link 22 sites. Test sites like laboratories, etc. are considered as one site. The current levy fee is \$46,767 USD per copy (see Section 6 Question 5). Levy payments shall be processed in accordance with the *NILE Project Financial Procedures for 3PS Levies* document. This document is provided as an Annex to the 3PS approval letter, which will be sent to the 3PS Nation after all NILE Nations have approved the 3PS request (see para 2.4h). Levy payments are to be paid in USD and shared among the following countries: CAN, DEU, ESP, FRA, ITA, UK, and NLD. USA law prohibits the collection of levies for the United States. NLD is an original NILE Nation that participated in the D&D phase of the project and therefore retains data rights and entitlement to a levy.

3.3 BCR Fees

The annual BCR Fee will be imposed to support any kind of configuration management, interoperability, or maintenance of the NILE Products. In order to support greater budget stability for the NILE Project and Link 22 Partner Nations, the NILE Nations decided in 2016 to charge a flat BCR Fee of \$300K USD per year to Link 22 Partner Nations. The NILE Nations will evaluate this fee periodically and may decide to change it in the future dependent on maintenance activities required and the number of Link 22 Partner Nations. Please note that all BCR updates will be transferred through the USA via FMS procedures. BCR Fees are required in order to receive NILE Product updates (software and documentation), to enable maintenance of the NILE Products, to ensure representation or “Observer” status at the NILE CCB, to attend Link 22 Technical and Operational Working Group (TOWG) meetings and to have the right to submit Feedback Reports (FR) via the NILE PMO.

The purchase of the remaining Link 22 system elements (i.e., DLP/TOD/SPC/Radios) is not subject to NILE related fees or levies; however, any updates to the related interface requirements or design documents/specifications will not be available unless BCR Fees are current.

3.4 Missing Payments

If a Link 22 Partner Nation declines to pay the annual BCR Fee, then no software updates or NILE Service will be provided from the date of missing payment. NILE PMO will notify the Partner Nation on the missing payment with an official letter.

In addition, if a Link 22 Partner Nation chooses not to pay BCR Fees for multiple years, then once the Link 22 Partner Nation begins contributing again, the BCR Fee for the current Fiscal Year (FY) a maximum of two years of the delinquent BCR fees are due in full, depending on the SC decision, prior to that Link 22 Partner Nation receiving any NILE Product updates or services.

3.5 Other fees

In 2019, the US Government added an annual COMSEC sustainment fee of approx. \$ 4,000 USD for each procured LLC 7M device, which will be incorporated in the implemented FMS Case. This fee is intended to cover LLC 7M sustainment services and will be reviewed periodically to determine any changes required.

Section 4 - International Organizations (IO)

Any IO is treated as a Third Party Nation and it shall provide assurance, in writing, that it will use NILE products and services for IO purposes only and will not transfer them to any other party. The use of NILE products originally intended for an IO will not be authorized in any case for exclusive National purpose.

The IO shall sign the End User Agreement for every BCR copy requested. In case the IO is unable to sign the End User Agreement for every BCR copy requested, the request shall proceed with one End User Agreement signed by the IO (for the BCR copies the IO is the real End User) and other End User Agreements, each one signed by the proper End User Nation (for the BCR copies each Nation is the real End User).

The IO shall request (application process as described in para 2.4 applies) NILE Products via a Third Party Sale request and a US FMS Case for Link 22 COMSEC and BCR updates.

The IO shall pay one BCR Fee annually via the FMS Case, regardless of NILE product usage in the IO organization.

The IO shall pay one Levy for each SNC used in an Operative Link 22 Unit, regardless of where the unit/shore site is hosted with the exemption if the End User is a NILE Nation.; one Levy is applied for use in every test site/laboratory. Any request for exception to this policy must be presented by the Sponsor Nation, along with the appropriate justification, at the first possible NILE SC meeting.

The SC shall decide if an exception is applicable or not.

Section 5 - System Procurement and Integration

5.1 COMSEC (LLC 7M) Application Process

A Prospective 3PS Nation shall contact the US Defense Security Cooperation Agency (DSCA) via its Embassy to initiate COMSEC (i.e., LLC 7M) acquisition. The transfer, sale, exchange, use or disposal of COMSEC information or material will be the subject of bilateral written arrangements between the COMSEC authorities of the USA and each 3PS Nation, as well as any applicable written notes in the resulting FMS case.

The Prospective 3PS Nation should make its acquisition schedule requirements clear as early in the process as possible, since the time required for COMSEC approval can be lengthy. After receiving the request from DSCA, the Navy International Programs Office (NIPO) will forward the request to the PEO C4I International Programs Office (PMW 740) and the USA National Security Agency (NSA) for review. Other USA government agencies must also review and approve the request for COMSEC.

PMW 740 will complete development of the Letter of Offer and Acceptance (LoA) to implement the FMS case following NSA approval. NIPO will also notify the Requesting Party of the USA government's position on COMSEC acquisition. A more detailed description of this process is available by contacting PMW 740. PMW 740 maintains a template for development of Link 22 Letters of Request (LoR), which is available upon request. PMW 740 is also available to review any draft LoRs to ensure all aspects of the request are complete and accurate (e.g., BCR Fees, LLC 7M unit purchases, ancillaries, training, support, etc.).

5.2 Common Integration

Development of a Link 22 system requires the integration of a number of key system components. These components may be integrated with other Tactical Data Links or other systems. See Figure 1 for a Link 22 system diagram. A number of government and industry solutions already exist for end-to-end systems; however, integration into a unique tactical data system for a Prospective 3PS Nation requires a clear appreciation of the nation's own individual requirements. Integration activity required for obtaining an operational Link 22 system is always a national responsibility.

The NILE Project developed and maintains the NILE Reference System (NRS), which is a compatibility test tool designed to provide life cycle support and performance/requirement validation for the SNC, LLC 7M and SPC. The NRS also features data extraction and analysis tools which provide detailed analysis and replay capabilities. This tool can help technical personnel during their integration efforts, since the NRS can be used to test SNC to SNC compatibility as well as the end verification and validation of requirements for the SNC, LLC 7M and SPC.

Technical personnel who have encountered issues or difficulties while integrating Link 22 can submit FRs (feedback reports) through the NILE PMO for consideration. Staffing of all FRs will be completed in accordance with the FR process described in the NILE Project's Configuration Management Plan (CMP).

Note that a complete requirements analysis should be completed as part of the Link 22 integration process to define implementation details of the Link 22 tactical messages and connectivity requirements; thus defining how many and which type of SPCs, radios, etc. are going to be required.

5.2.1 Roadmap Template

We added High Level Roadmap for Nations to use for their planning purposes.



Template High Level
Link 22 POAM_7Jul2

5.3 Component Integration

5.3.1 Data Link Processor (DLP)

The DLP is connected to, or is part of, the Tactical Data System (TDS) of the NILE Unit (NU). The DLP processes the received tactical messages and generates tactical messages for transmission in accordance with the unit's national requirements. If Link 22 is to be added to an existing operator interface or TDS, it may be possible to incorporate the Link 22 TDS/DLP functions within the existing system; otherwise, a new processor will be required to run the functions. However, if the existing system has spare link interfaces, then it may be possible to connect to the existing spare interface. In this case, a gateway system that converts from the existing link format to Link 22 would need to be purchased.

The DLP must be compliant with STANAG 5522 / ATDLP-5.22 or a subset of it, as well as with the DLP-SNC Interface Design Description (DLP-SNC IDD).

The development and integration of the DLP component, which is also a national responsibility, is the most significant and costly effort during Link 22 implementation. Depending on specified requirements, costs can be minimized by understanding that the DLP development costs increase as the level of DLP complexity increases. The following factors should be considered:

- a. Single Link Receive Only (or display only) DLPs are the simplest to implement;
- b. Single Link Full Receive and Limited Transmit (Surveillance/PLIs) DLPs are also relatively simple to implement;
- c. More extensive Command and Control capable implementations require greater care; and a more network-centric perspective during requirements capture, development and implementation;
- d. Multi-Link DLPs are more complex than Link 22 only implementations;
- e. A Dual Link 16 / Link 22 DLP is simpler to implement than a Dual Link 11 / Link 22 DLP;
- f. A Multi-Link (Link 11/Link 16/Link 22) DLP is the hardest to develop and implement;
- g. DLP development and integration will become increasingly complex, expensive and nation-specific as the requirement for integrated sensors, radars, weapons and other shipboard systems increases; and
- h. Dual and multi-link DLPs acting as Data Forwarders must be in compliance with STANAG 5616/ATDLP-6.16.

Also, detailed STANAG 5522 / ATDLP-5.22 implementation requirements should be provided to a contractor to avoid implementation problems. Detailed implementation requirements should consider the platform's operational and tactical capabilities and its interoperability requirements with other platforms (e.g., ships, aircraft, submarines and shore sites).

5.3.2 System Network Controller (SNC)

The SNC software requires a computer processor to execute the code. This would usually be a personal computer (PC) type of hardware, either running Windows or Linux operating systems. The SNC software is written in Ada 95 and is easily portable to other operating systems as long as there is an Ada 95 compliant compiler available for the operating system. Link 22 Partner Nations will only receive executable software (not source code) for Windows and Linux. The computer does not require significant processor power. As a guide, a two GHz processor with one GB of memory is more than adequate. The computer needs to support at least one Ethernet connection (preferably 100 Mbps) but, depending on the configuration, two may be required. The computer requires some storage for the operating system, the SNC executable software, and the TOD interface software. Possible configurations include a VME backplane enclosure with power supply and a VME processor card, or a rack mountable industrial PC.

The SNC requirements are described in the SNC Segment Specification (SNC SS). The SNC software design is explained in the SNC Software Design Description (SNC SDD).

The SNC technical information is contained in the SNC System Technical Manual (SNC STM). The SNC versions are designed to be backwards compatible within minor version numbers. For example, SNC v10.0 through v10.2 can be used in the same network or with earlier versions of the DLP-SNC interface. Major versions are not backwards compatible. For example, SNC v10.x is not backwards compatible with SNC v9.x.

5.3.3 Link 22 Modernized Link Level COMSEC (LLC 7M)

The LLC 7M is the Link 22 COMSEC and was developed by the USA. The LLC 7M is only available through the USA's FMS program. The LLC 7M was initially certified in February 2016 and is available for purchase. A single LLC 7M is able to support up to four NILE Networks (NNs).

The LLC 7M is suitable for use on ships, submarines, shore sites and aircraft, as it was developed to meet the more stringent environmental requirements (altitude, shock, vibration, humidity, etc.) for airborne platforms as described in MIL-STD-810G.

Although the LLC 7M has not been formally certified for use on aircraft, it is suitable for aircraft installation. The LLC 7M was designed to conform to the standard ARINC specifications for Air Transport Equipment Cases and Racking as well as the specified mounting system. The tray conforms to ARINC 404, ½ ATR low profile, long ½ ATR mounting tray specification, except for the front hold downs which are in the ARINC 600 position (2.600' instead of 4.125'). Bonding through the mounting tray to the LLC 7M shall be < 2.5 milli ohms. The mounting tray, power cables and data cables are not part of the delivery of a LLC 7M unit. These items may be purchased separately via the USA FMS process, if needed, or developed/purchased via alternate means using the specification provided by the NILE PMO.

The functional interface of the LLC 7M is described within the LLC 7M Interface Requirements Specification (IRS) document, which is included within the NILE Products. Additional documentation requirements must be included within the FMS case for LLC 7M. Nations should contact their PMW 740 FMS Case Manager for a complete list of COMSEC-related documentation.

LLC_Sim is a software application within the NRS. This software tool can be used in conjunction with Commercial-Off-The-Shelf (COTS) hardware to simulate the LLC 7M when a real device is unavailable. This capability is ideal for developmental testing of Link 22 systems.

5.3.4 Signal Processing Controller (SPC)

An SPC is COTS equipment that is required for each network/media that the unit is to operate on. A single SPC may be configured to use different media. An SPC hardware unit may contain more than one SPC. Currently, there are two manufacturers of SPCs, which support HF and UHF FF media, as well as UHF EPM media. The SPCs are offered in different form factor depending on the need of the integrator. L22 Partner Nations are encouraged to contact the manufacturers for a complete list of possibilities.

Radio Frequency (RF) and power control by the SPC is optional. Refer to the SPC manufacturers' specifications to determine the options that are available along with the supported radios.

An SPC can embed one or more waveforms, and one or more channels, depending on the manufacturer. Link 22 media types are:

- a. HF FF (per STANAG 4539);
- b. UHF FF (per STANAG 4205);
- c. HF EPM (per STANAG 4444) – *not currently implemented*; and
- d. UHF EPM (per STANAG 4372 Annex B – Chapter IV).

For each of these media types, the SPCs must also be compliant with:

- a. HF FF: the SPC SS Appendix A and the LLC IRS as applicable;
- b. UHF FF: the SPC SS Appendix B and the LLC IRS as applicable;
- c. HF EPM: the SPC SS Appendix C and the LLC IRS as applicable– *not currently implemented*; and
- d. UHF EPM: the SPC SS Appendix D and the LLC IRS as applicable.

The Media Simulator (MS) software, developed and maintained by the NILE Project, represents with high fidelity, how a real SPC is supposed to behave in order to operate correctly in a Link 22 system.

Each SPC must also fit a one-way TOD input compatible with STANAG 4430, and be consistent across the entire Link 22 system.

5.3.5 Radios

The radios are COTS equipment available from multiple vendors. Given the wide range of capabilities available for COTS radios, the selection should be based on the performance requirements of the user that would include the Link 22 capabilities listed in section 4.3.4.

Note that if the Link 22 portion contained in the specified STANAG is optional then that option must be requested contractually for the radio to be Link 22 capable.

Existing HF Link 11 radios are compliant with the HF FF Link 22 waveforms 1-6 (waveforms 7-18 must be verified prior to fielding); some existing UHF Link 11 radios could be re-used for UHF FF Link 22 waveforms. Implementation of EPM waveforms requires radios that can support this feature.

EPM radios must embed a one-way TOD input compatible with STANAG 4430 and the TOD input must be consistent across the whole Link 22 system.

Section 6 - Link 22 In-Service Support (ISS)

6.1 Overview

The NILE PMO is currently working under the aegis of the 5th Amendment to the original ISS MOU. The PMO oversees the SW load, which is the BCR version requested and available at the time of first delivery and BCR updates. Prior to shipment, all levies must be paid in full.

To ensure interoperability, the following configuration control measures are in effect for customers:

- a. Release of SW (via encrypted BCR disk) is controlled by the NILE PMO, and limited to the executable code. Source code is not releasable and shall remain under control of the NILE Nations;
- b. Any other method to release SW by customers or contractors is prohibited unless written approval is obtained from the NILE PMO; and
- c. A standard end-user agreement and applicable Third Party Transfers must be in place with the customer.

6.2 BCRs for Link 22 Partner Nations

The BCR for Link 22 Partner Nations refers to the executable code software which encompasses the SNC software, NRS software, and updated NILE documentation. The current schedule of BCRs occurs biennially (every two years), usually at the end of July.

6.3 Feedback and Problem Reporting

The FR is the main vehicle for national entities to provide feedback on problems or request clarification and extensions of Link 22 protocols. Depending on the topic, this may be covered by existing items in the Statement of Work (SOW) with the contractor or it may be addressed with a Technical Direction Letter (TDL) under Engineering Services as a group or as individual nations. An FR can be resolved through appropriate means, such as email exchange, teleconference or it may generate a more formal artifact such as Problem Change Report (PCR), Change Proposal (CP), Engineering Change Proposal (ECP) or TDL.

6.4 Link 22 Websites

NILE manages the public website: www.link22.org.

6.5 NILE / Link 22 Meetings and Working Groups

6.5.1 NILE Steering Committee

The NILE SC has overall authority and responsibility for direction of the NILE Project in accordance with the NILE MOU. The SC consists of a representative appointed by each of the participant member nations, including: Canada, France, Germany, Italy, Spain, UK and USA. The SC will meet at least annually. There are normally two in-person Link 22 SC meetings per year. Decisions of the SC are made unanimously.

6.5.2 Link 22 Communications & Interoperability Working Group (CIWG) and Link 22 Technical & Operational Working Group (TOWG)

Link 22 CIWG Meetings can be held on request by prospective nations. Link 22 TOWG Meetings are conducted twice per year.

Both the Link 22 CIWG and Link 22 TOWG act on behalf of the NILE SC as a forum for prospective and approved Link 22 nations and other agencies to enhance interoperability. This is achieved by addressing current and future Link 22 communications, interoperability and implementation issues and essential improvements.

For information about and attendance to the Link 22 CIWG please refer to CIWG TOR (Terms of Reference) available on www.link22.org. For TOWG please request information directly from the PMO.

6.5.3 NILE Configuration Control Board

The configuration control function is exercised, on behalf of the SC, by a NILE Configuration Control Board (CCB). The NILE CCB is composed of a representative from each NILE Nation, with a right of vote, and chaired by the NILE PM. The Chairman has no voting rights. All decisions require unanimity. In case of disagreement, the matter will be brought to the NILE SC for resolution. The NILE CCB meets twice annually.

In 2017 it was decided to allow Link 22 Partners Nations be able to attend the NILE CCB as "Observers", with Observer Guidelines to be followed.

Section 7 - Frequently Asked Questions

1. Q. What are the NILE Products?

A. The NILE Products include software (e.g., SNC, NRS,) and documentation (Link 22 Guidebook, interface documents, software requirements/description, etc.). All non-COMSEC NILE Products are contained in the NILE BCR DVD, which is distributed at least once every two years. COMSEC (LLC 7M) units and documentation are available via a USA FMS case. A complete listing of the NILE Products is contained as Annex B, Part I. A detailed listing of all NILE and LLC 7M related products and services, called the NILE Product Reference Document, can be requested from PMW 740.

2. Q. When can a nation obtain the NILE Products?

A. The initial BCR DVD can be obtained after unanimous 3PS approval of the NILE SC and NLD, upon completion of all levy payments. 3PS approval requires completion of the appropriate TPT documentation, as well as submission of the Link 22 LoR which must contain (at a minimum) a request to pay BCR Fees and to purchase LLC 7M units. BCR updates, COMSEC units and associated documentation are available after the FMS case has been implemented.

3. Q. How can a Prospective 3PS Nation obtain the Link 22 COMSEC?

A. Via the USA FMS process.

4. Q. After an initial transfer is approved to a Link 22 Partner Nation, how does the nation obtain a BCR Update of the NILE Products?

A. Via the USA FMS process and payment of applicable BCR Fees.

5. Q. How much are the levies?

A. \$46,767 USD for each operational copy of SNC SW (Test Lab is considered 1 operational site, which could have multiple SNCs). Eight Nations (7 NILE Nations plus Netherlands) are entitled to get 1/8 (\$5,846 USD) of each levy. Current US regulations prohibits USA to collect levies, therefore, unless regulations change, the payable amount, minus the US part, is \$40,921 USD/copy.

6. Q. How much are the BCR Fees?

A. The BCR Fee is \$300K USD annually.

7. Q. How can a 3PS Nation obtain a DLP, SPC and/or Radios?

A. The Link 22 DLP, SPC and Radios can be procured directly from a contractor or they can be developed internal to the 3PS Nation.

8. Q. What is the difference between MLST3 and the NRS?

A. The Multi-Link System Test and Training Tool (MLST3) SW provides multi-link simulation, testing and recording functionality to provide a capability for testing the tactical messaging protocols as defined in STANAG 5522 / ATDLP-5.22 (Link 22), STANAG 5516 / ATDLP-5.16 (Link 16), STANAG 5511 / ATDLP-5.11 (Link 11) and other tactical data links standards. Therefore, MLST3 is used for testing and acceptance of a DLP implementation. MLST3 SW is available for purchase via the USA FMS process. Alternatives to MLST3 may be available through others vendors.

The NRS is a compatibility testing tool designed to test the SNC, with LLC 7M units or LLC 7M simulated units. The NRS is part of the NILE Products and includes a number of tools to simulate and test parts of the Link 22 communications equipment, such as the simulator for the COMSEC.

The two products together can be used in conjunction to provide high fidelity Link 22 simulation. Both products are software applications which can be run on COTS hardware.

9. Q. Does the LLC 7M device have different versions for the surface, air and subsurface platforms?

A. No. The LLC 7M was designed as a dual-use variant for air and surface environmental requirements. There are no intentions to develop separate versions for each environment. The planned dual-purpose air variant will meet the NILE Nations' ship and airborne requirements; and a limited number of specific subsurface requirements.

10. Q. When will the LLC 7M be available to Link 22 Partner Nations through USA FMS?

A. The LLC 7M is available for purchase via the USA FMS process. Nations can review LoR requirements and options with their respective PMW 740 Case Manager.

11. Q. What's the difference between CIWG Nation, Link 22 3PS Nation and Link 22 Partner Nation Status?

A. Definitions can be found in Annex D.

To participate in the Communications and Interoperability Working Group an interested nation needs to be approved by all NILE Nations for CIWG Membership.

The next step is submitting the application for sale/transfer of NILE Products the Nations.

Once approvals from all 7 NILE Nations (and Netherlands) are obtained, the Nation becomes a Link 22 3PS Nation.

After the US FMS Case for COMSEC and BCR is implemented, all levies and BCR fees are paid, a Nation becomes a Link 22 Partner Nation.

Annex A – Request for Sale or Transfer of NILE Products

A request from a participant NILE Nation that wishes to sell and/or transfer NILE Products to a Prospective 3PS Nation will proceed as follows:

1. The participant will submit the request form part 1, contained in Annex B of the NILE 3PS Document, to the NILE PMO to request the approval of a sale and/or transfer of NILE Products to a Prospective 3PS Nation.
2. Upon receipt of this request, the NILE PMO will process the request form parts 2 and 3. This will include a NILE PMO recommendation for the fee amount to be used for the requested sale and/or transfer.
3. The NILE PMO will submit the request form parts 1, 2 and 3 to the Participants' SC representatives and NLD for national staffing and approval.
4. Following national staffing, the participants' SC representatives will complete the request form part 4 and forward to the NILE PMO. If the sale and/or transfer is approved, then the request form part 5 will also be submitted.
5. On behalf of the NILE SC, the NILE PMO will inform the requesting Participant of the SC's decision using an official letter of notification. If the request has been approved, the notification will include an updated version of the *NILE Project Financial Procedures for 3PS Levies* document.

Annex B – List of NILE and NILE-Related Products

Part I: List of NILE Products Included in BCR DVD to a Link 22 Partner Nation	
NILE Software	
NRS	NILE Reference System Software (Executable code)
SNC	System Network Controller Software (Executable code)
NILE Documentation	
FR	Feedback Report
WP	White Paper
CP	Change Proposal
PCR	Problem Change Request
SNC SDD	SNC Software Design Description
SNC SS	Segment Specification for the System Network Controller
SNC STD	Software Test Description for the System Network Controller
SNC STM	System Technical Manual for the System Network Controller
SNC STR	Software Test Report for the System Network Controller
SNC SVD	Software Version Description for the System Network Controller
NRS SVD	Software Version Description for the NILE Reference System (NRS)
MS SRS	Media Simulation Software Requirements Specification
NRS IDD	Interface Design Description for the NILE Reference System
NRS SS	System Specification for the NATO Improved Link Eleven (NILE) Reference System (NRS)
NRS STD	Software Test Description (STD) for the NILE Reference System (NRS)
NRS STM	System Technical Manual for the NILE Reference System (NRS) and

	Interfaced SNC
NRS STR	Software Test Report for the NILE Reference System (NRS)
SG SRS	Scenario Generator Software Requirements Specifications
DLP-SNC IDD	Interface Design Description for the Data Link Processing Segment and the System Network Controller
LLC IRS	Interface Requirement Specification (IRS) for the Link-Level COMSEC (LLC) Segment
CMIS	Configuration Management Information System (Database)
SPC SS	Segment Specification for the Signal Processing Controller (SPC)
SSS SS	Segment Specification for the Signal Processing Controller (SPC) Serial Splitter (SSS)
DERD	Data Extraction and Reduction Document
Glossary	Glossary for the NILE In-Service Support(ISS) Phase
Help	Help Files for NILE In-Service Support(ISS) Document Navigation
NILE RTM	NILE Requirements Traceability Matrices
Link 22 GB	Link 22 Guidebook

Part II: List of NILE Related Products (3PS Nation Responsibility)

NILE Related Hardware

DLP	Data Link Processor
Time of Day Source	Time of Day synchronized to UTC
Host System	Host System for SNC (Windows or Linux OS)
LLC 7M	LINK 22 Modernized Link Level COMSEC (LLC 7M), including Crypto Keys
Key Loader	Key Loader compatible with LLC 7M
Radio	HF FF / UHF FF / UHF EPM Capable Radios (depending on chosen

equipment	implementation) and related ancillaries
SPC	HF FF / UHF FF / UHF EPM Capable Signal Processing Controller (depending on chosen implementation)
Antennas	HF and UHF antenna (depending on chosen implementation)
NILE Related Documentation	
OLM	OPTASK Link Message (EXTAC 779)
STANAGs	4203, 4205, 4285, 4372, 4430, 4444, 4539, ATDLP-5.22, ATDLP-6.16
ADatP – 3	MultiLink Standard Operating Procedures
ATDLP-7.33	Multi-Link Standard Operating Procedures for Tactical Data Systems Employing Link 11, Link 11B, Link 16, IJMS and Link 22

Annex C – Sponsor Nation Request Template

DD MMM YYYY

Dear [SC Member for Sponsor Nation],

[Insert your Nation or Organization] is interested in approaching [Sponsor Nation] with the purpose of becoming a Link 22 third party sales [Nation / Organization]. Purchasing Link 22 to promote tactical data link interoperability with other nations is one of [Insert your nation or organization]'s operational goals. [Insert your Nation or Organization]'s current plan is to implement _____.

In order to achieve our objectives as described above, [Insert Nation or Organization] is formally requesting that [Sponsor Nation] act as the Link 22 Sponsor Nation for the purchase of Link 22.

[Insert Nation or Organization] kindly requests your support for initiating the approval process.

Very Respectfully,

SIGNATURE

Annex D – Acronyms and Abbreviations

BCR Fee: The annual BCR Fee will be imposed for the maintenance of the NILE Products sold and/or transferred to Link 22 Partner Nations, to support configuration management and interoperability.

Direct Commercial Sale: A commercial contract made between a contractor and a 3P.

Fees: There are two fees that apply to the sale and/or transfer of NILE Products: levies and BCR Fees.

Foreground Information: Any information generated in the performance of the NILE Project.

Foreign Military Sales: The USA program for furnishing government-to-government sales.

Government-to-Government Sale: The sale of NILE Products by one government to another government.

Levy: The amount of recoupment of non-recurring expenditures for development that may be collected by the NILE Nations as a result of any 3rd party sale or transfer.

Link 22 C&IWG Nation: A nation which has been approved to participate at Link 22 C&IWG Meetings.

Link 22 3PS Nation: A nation which has been approved for receiving NILE Products, but has not received approval for COMSEC under US FMS Procedures and/or has not paid all levies and BCR fees.

Link 22 Partner Nation: A nation which has been approved for receiving NILE Products and COMSEC under US FMS Procedures, and has paid all levies and BCR fees.

NILE Nation: Participating nations in the NILE Project under the NILE MOU.

NILE Products: NILE Project Foreground Information generated collaboratively under the MOUs for the NILE Project or equipment embodying such information.

NILE Steering Committee: Authority responsible for the oversight of all activities of the NILE Project. It is composed of designated representatives of the Participants.

Participant: Signatory NILE Nation to the NILE MOU.

3PS	Third Party Sales
ADatP	Allied Data Publication
ARINC	Aeronautical Radio INCorporated
ATDLP	Allied Tactical Data Link Publication
ATR	Air Transport Rack
BCR	Block Cycle Release
BLOS	Beyond Line Of Sight

CIWG Communications and Interoperability Working Group

CCB	Configuration Control Board
CIG	Customer Information Guide
CMP	Configuration Management Plan
COCOM	COMbatant COMmander
CONAUTH	CONtrolling AUTHority
COMSEC	COMmunications SECurity
COTS	Commercial-Off-The-Shelf
D&D	Design and Development
DLP	Data Link Processor
DTDMA	Dynamic Time Division Multiple Access
EPM	Electronic Protection Measures
FF	Fixed Frequency
FMS	Foreign Military Sales
FR	Feedback Report
FY	Fiscal Year
HF	High Frequency
HF EPM	High Frequency Electronic Protection Measures
HF FF	High Frequency Fixed Frequency
IDD	Interface Design Document
IRS	Interface Requirement Specification
ISS	In-Service Support
LLC	Link Level COMSEC
LLC 7M	LINK 22 Modernized Link Level COMSEC
LNE	Late Network Entry
LOS	Line of Sight
MLST3	Multi-Link System Test and Training Tool
MOU	Memorandum of Understanding
MS	Media Simulator
NATO	North Atlantic Treaty Organization
NCE	NILE Communications Equipment
NCS	Net Control Station

NILE	NATO Improved Link Eleven
NIPO	Navy International Programs Office
NN	NILE Network
NRS	NILE Reference System
NSA	National Security Agency
NTR	Network Time Reference
NU	NILE Unit / Link 22 Unit
OLM	OPTASK Link Message
P&A	Price and Availability
PMO	Project Management Office
POC	Point of Contact
RF	Radio Frequency
SC	Steering Committee
SN	Sponsor Nation
SNC	System Network Controller
SNC SDD	System Network Controller Software Design Description
SNC SS	System Network Controller Segment Specification
SPC	Signal Processing Controller
STANAG	NATO STANdardization AGreement
SW	Software
TOWG	Technical and Operational Working Group
TDL	Tactical Data Link / Technical Direction Letter
TDMA	Time Division Multiple Access
TDS	Tactical Data System
TOD	Time of Day
ToR	Terms of Reference
UHF	Ultra High Frequency
UHF EPM	Ultra High Frequency Electronic Protection Measures
UHF FF	Ultra High Frequency Fixed Frequency
USD	United States Dollar
UUT	Unit Under Test
VME	Virtual Machine Environment

Annex E – USA DoS STANDARD TPT QUESTIONNAIRE (15 QUESTIONS) AND ANSWERS FOR USA DoS APPROVAL

(Please check US DoS Website for updates before using content of Annex E (<https://www.state.gov/third-party-transfer-process-and-documentation/>))

USA approval of NILE 3PS requests is dependent on approval of the transfer by the USA Department of State. This annex is provided to assist sponsor nations in completing the necessary paperwork required so that the approval process is not unnecessarily delayed.

The USA Department of State Standard Third Party Transfer Questionnaire and an End User Agreement (AnnexF) must be completed by the Sponsor NILE Nation with input from the 3P nation. The Sponsor NILE Nation must submit these documents to the NILE PMO. Further information is available at <http://www.state.gov/third-party-transfer-process-and-documentation>. The USA Department of State may be contacted using the following email address: PM_RSAT-TPT@state.gov

To provide an appreciation of the time required for review, it typically takes the USA Department of State approximately sixty working days to review and approve the request. Once the request is received by the USA Department of State then they will assign a RSAT case number which initiates the aforementioned approval process. The Sponsor NILE Nation is advised to check with the USA Department of State if an RSAT number is not provided within one week of submission of the request.

The following fifteen questions contain sample answers that provide, in some circumstances, the necessary answers required for USA Department of State approval for the transfer of NILE products to a third party nation. Questions three, six, seven, eleven and twelve can be used verbatim. The remainder of the questions will require minor amendments. Also, the title of the document needs to be amended where ZZZ refers to the NILE Sponsor nation, and YYY refers to the 3P nation.

USA Department of State Standard Third Party Transfer Questionnaire: Transfer of NILE from ZZZ to YYY

Q1 – Who is the divesting government?

Example: Canada (CAN), France, (FRA), Germany (DEU), Italy (ITA), Spain (ESP), or United Kingdom (UK)

Q2 – What commodity/equipment/service/technical data is to be transferred? (Please provide NATO Serial Numbers) What are the serial numbers? (must be provided for significant military equipment).

Example: NILE Block Cycle 6 (BC6) DVD. The contents of BC6 are listed in Annex A below.

Q3 – How did the divesting country originally acquire the defense article(s)?

The defense articles were acquired as part of the NATO Improved Link Eleven (NILE) international cooperative development program. The NILE project is currently in the ISS (In Service Support) phase which is governed by a seven nation MOU. The seven nations in the ISS phase are the United States, Canada, France, Germany, Italy, Spain and the United Kingdom.

The Netherlands was a member in the D&D (Design and Development) phase of the MOU but left at the end of the D&D phase.

Spain was not a member in the D&D phase of the MOU, but bought into the project in 2004 during the ISS phase.

Q4 – When was/were the article(s) acquired by the divesting country?

Example: BC6 will be delivered to the NILE PMO on 1 Aug 2013 and will be forwarded to the NILE Nations (USA, CAN, ITA, FRA, DEU, ESP & UK) on receipt.

Q5 – What was the original acquisition value (necessary for congressional reporting)?

The total cost for the NILE product development was \$39M USD. This is the value of the entire NILE Project D&D phase. This cost was split evenly amongst the original seven nations.

ESP bought into the project in 2004 by paying an equal share of the D&D cost.

Eight nations have therefore contributed to the NILE D&D and ZZZ's share of development costs is approximately \$4.87M USD.

Q6 – What is the current value, if applicable?

The NILE Products consist of Software and Documentation and are not therefore subject to factors like depreciation which would affect physical equipment. It is therefore assessed that the value of the NILE Products to the NILE Nations would be approximately the same as the original acquisition cost. That is, the \$39M Design and Development cost divided by eight contributing nations = \$4.87M USD

As per Question 13, a levy will be applied on the sale of the products. The value of this levy is based upon the original acquisition cost divided by the expected number of Link 22 units over the lifetime of the system. If all eight nations (including the USA) collect their portion of the levy, the Third Party Nations would pay \$46,767.00 USD per Link 22 Unit / Block Cycle Release.

Q7 – Why does that government wish to divest itself of the equipment?

Example: To support national military requirements.

Q8 – Who is the proposed recipient?

Example: YYY

Q9 – Is this a temporary or permanent transfer to the proposed recipient?

Example: YYY requires the permanent transfer of ### NILE Block Cycle Release DVDs.

Q10 – What is the proposed recipient's planned end-use for the articles (please provide as much detail as possible)?

Example: YYY Naval platforms will be equipped with Link 22 starting in 2019. The development phase has already been initiated with a signed contract. This contract requires ### platforms and ### land based software development/test/integration sites to be equipped with Link 22.

Time schedule:

Land based test station – 1 April 2018

1st Platform – 1 April 2019

2nd Platform – 1 September 2019 ...

Q11 – Does the proposed recipient currently possess this model of equipment?

Example: No

Note – if the YYY nation is adding Link 22 to additional platforms and they already possess the same BC then the answer would be yes.

Q12 – Are there any intermediaries? If so, who? What is their role? Where are they located and what are the points of contact (email is required)?

Example: No

Q13 – Will any net proceeds be realized from this sale, transfer, or disposal? If so, what are the estimated net proceeds?

Example: ZZZ on behalf of Canada, France, Germany, Italy, Spain, UK and USA and the Netherlands (as former NILE Nations during the NILE D&D phase) will request YYY to pay a levy per equipped platform.

The applicable levy due to each contributing NILE Nation is \$5,845.87 USD per equipped platform and YYY is requesting ### Block Cycle Releases (BCRs). Therefore, each NILE Nation should expect to receive:

*\$5,845.87 USD * ### BCRs = \$##,###.## USD per nation.*

Any of the mentioned nations may waive their own levy share dependent upon their national laws and regulations.

The USA will not receive such levy proceeds per DSCA Policy memo 04-21 as the acquisition cost was under \$50M USD.

Q14 – Is there a certain date requested for approval? If so, please indicate the date and provide the relevant details.

Example: It is requested that approval be provided no later than DD MM YYYY, to enable delivery of product by DD MMM YYYY to meet Government Furnished Equipment (GFE) requirement for integration into YYY platforms.

Q15 – Please provide point of contact details for the divesting government, the proposed recipient, and any intermediaries

Example:

Divesting Government (NILE Nation ZZZ)

Proposed Recipient (YYY)

LCdr Andreas Miller

Commander John Smith

Communications Officer

YYY Naval Forces

PO Box 12345

123 Main Street

Address

Address

ZZZ

YYY

Tel: 123-456-7890

Tel: 321-654-0987

Annex F – End Use Agreement - Template

(Please check US DoS Website for updates before using content of Annex F (<https://www.state.gov/third-party-transfer-process-and-documentation/>))

GOVERNMENT-GOVERNMENT THIRD-PARTY TRANSFER

(Complimentary Opening) and has the honor to refer to the provisions of United States law that requires the Government of **Recipient Country** to provide to the Government of the United States of America end-use, retransfer and security assurances before it may consent to the Government of **Requesting Country's** request to provide **commodity and quantity proposed for transfer** to the Government of **Recipient Country**.

In accordance with the foregoing, the Government of **Recipient Country** hereby gives its assurances:

- (A) That the Government of **Recipient Country** shall not, unless the prior written consent of the Government of the United States of America has been first obtained:
 - (I) Permit any use of such **commodity**, including related data and information, by anyone not an officer, employee, or agent of the Government of **Recipient Country**; and
 - (II) Transfer or permit any officer, employee, or agent of the Government of **Recipient Country** to transfer such **commodity**, including related data and information, by gift, sale, or otherwise.
- (B) That the Government of **Recipient Country** will maintain the security of such **commodity**, including related data and information, and will provide substantially the same degree of security protection afforded by the Government of the United States of America.
- (C) That, unless prior written consent of the Government of the United States of America has first been obtained, the Government of **Recipient Country** will use such **commodity**, including related data and information, solely for internal security, for legitimate self-defense, for preventing or hindering

the proliferation of weapons of mass destruction and of the means of delivering such weapons, to permit the Government of **Recipient Country** to participate in regional or collective arrangements or measures consistent with the Charter of the United Nations, or otherwise to permit the Government of **Recipient Country** to participate in collective measures requested by the United Nations for the purpose of maintaining or restoring international peace and security.

For and on behalf of the Government of **Recipient Country**,

(signature)