NATO — **OTAN**	NATO STANDARDIZATION AGENCY AGENCE OTAN DE NORMALISATION

8 September 2009   NSA/0963(2009)-JAIS/4683

See CNAD AC/225 STANAG distribution

STANAG 4683 JAIS (EDITION 1) – NATO TECHNICAL SHARABLE SOFTWARE (NTSS)

Reference: PFP(NAAG)D(2008)0029 dated 27 October 2008

1.   The enclosed NATO Standardization Agreement, which has been ratified by nations as reflected in the NATO Standardization Documents Database (NSDD), is promulgated herewith.

2.   The reference listed above is to be destroyed in accordance with local document destruction procedures.

ACTION BY NATIONAL STAFFS

3.   National staffs are requested to examine their ratification status of the STANAG and, if they have not already done so, advise the Defence Investment Division through their national delegation as appropriate of their intention regarding its ratification and implementation.
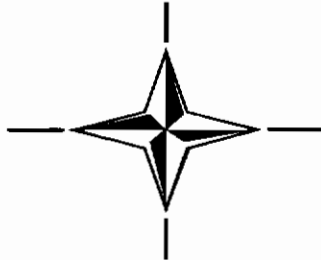
Juan A. MORENO
Vice-Admiral, ESP(N)
Director, NATO Standardization Agency

Enclosure:
STANAG 4683 (Edition 1)

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NORTH ATLANTIC TREATY ORGANISATION
(NATO)

NATO STANDARDIZATION AGENCY
(NSA)

STANDARDIZATION AGREEMENT
(STANAG)

SUBJECT: NATO TECHNICAL SHARABLE SOFTWARE (NTSS)

Promulgated on 8 September 2009

Juan A. MORENO
Vice-Admiral, ESP(N)
Director, NATO Standardization Agency

RECORD OF AMENDMENTS

No	Reference/date of amendment	Date entered	Signature

EXPLANATORY NOTES

AGREEMENT

1.   This NATO Standardization Agreement (STANAG) is promulgated by the Director NATO Standardization Agency under the authority vested in him by the NATO Standardization Organisation Charter.

2.   No departure may be made from the agreement without informing the tasking authority in the form of a reservation. Nations may propose changes at any time to the tasking authority where they will be processed in the same manner as the original agreement.

3.   Ratifying nations have agreed that national orders, manuals and instructions implementing this STANAG will include a reference to the STANAG number for purposes of identification.

RATIFICATION, IMPLEMENTATION AND RESERVATIONS

4.   Ratification, implementation and reservation details are available on request or through the NSA websites (internet http://nsa.nato.int; NATO Secure WAN http://nsa.hq.nato.int).

FEEDBACK

5.   Any comments concerning this publication should be directed to NATO/NSA – Bvd Leopold III - 1110 Brussels - BE.

NATO STANDARDIZATION AGREEMENT
(STANAG)

NATO TECHNICAL SHARABLE SOFTWARE (NTSS)

ANNEXES:

A - Definition of Terms
B - Flow Diagram of the Disclosure Principles for the NATO Technical Sharable Software
C - Secondary Distribution and Reverse-Engineering Statements

RELATED DOCUMENTS:

AOP-61	NTSS Product Development Standards and Guidelines
STANAG 4119	Adoption of Standard (Cannon) Firing Tables Format
STANAG 4355	The Modified Point Mass and Five Degree of Freedom Trajectory Models
STANAG 4367	Thermodynamic Interior Ballistic Model with Global Parameters
STANAG 4400	Derivation of Thermodynamic Values for Interior Ballistic Calculations
STANAG 4618	Six/Seven Degrees of Freedom Guided Projectile Trajectory Model
STANAG 4655	Determination of Aerodynamic Coefficients

AIM

1.   The aim of this agreement is to identify the structure, techniques, and procedures to be applied to the development of the NATO Technical Sharable Software (NTSS) and the sharing, disclosure, and use of NTSS software and documentation. The NTSS is a collection of software products designed for applications dealing with technical ballistics issues. Each NTSS product implements the technology found in one or more STANAGs managed by NAAG, Land Capability Group 3, Sub-Group 2. Some examples of NTSS product domains are interior ballistics, exterior ballistics, generation of Firing Tables and 6/7 Degree of Freedom Trajectory Simulation.

AGREEMENT

2.   Member countries which use or incorporate all or any portion of NTSS software (source, object or executable code), database file format and/or documentation agree to abide by the identified structure, techniques, and procedures in all matters concerning the development, sharing, disclosure, and use of NTSS software and documentation. Each member country individually is responsible for all liabilities associated with its national application of NTSS software and documentation.

DEFINITIONS

3.   The definitions used for the purpose of this STANAG are given in Annex A.

STANAG 4683
(Edition 1)

GENERAL

4.   The intent of this STANAG is to serve as a common coordinating document concerning the development, sharing, disclosure, and use of NTSS software, database file format, and documentation. AC/225 Land Capability Group 3, Sub-Group 2, NATO Technical Sharable Software Project Plan (or the successor Document to this), shall be used as a management guide for the development of the NTSS software. Of special concern is the protection of intellectual property contributed by participating nations and of the use of the NTSS for purposes for which it is not intended. The NTSS software and documentation are available to NATO member countries which agree to abide by the provisions of this STANAG.

DETAILS OF AGREEMENT

5.   Development and Maintenance of a NTSS Software Product, a Sample Database, and Documentation. The participating nations are responsible for the development and maintenance of the NTSS software through a NTSS product Configuration Manager that will inform all known NTSS users of any updates and modifications. An AOP shall be developed and maintained to define the structure, techniques, and procedures to be used in the development and implementation of each NTSS product domain.

6.   Sharing of NTSS Software, Database and Documentation. The government of each NATO nation has the right to possess NTSS software and documentation. The sharing of databases is at the discretion of each NATO member nation and shall only be shared upon justified request. Each national government shall ensure compliance with the controls on disclosure set forth in paragraph 8.

7.   Standardization. Whilst nations within the NTSS may modify NTSS software to suit particular national purposes, such modification must be reported to the NATO sponsor group, NAAG, Land Capability Group 3, Sub-Group 2. This is to ensure that standardization, the prime aim of the NTSS, is maintained.

8.   Disclosure of NTSS Software and Documentation.

      a.   Security Classification

          (1)   Source Code. All or any portion of NTSS source code, in any medium of exchange, shall be labeled and handled as NATO RESTRICTED information. NATO member countries incorporating NTSS source code, or any portion thereof, into a national application shall protect the resultant source code with no less than the NATO RESTRICTED classification.

          (2)   Object Code. NTSS object code that does not contain debugging information (e.g. internal symbols and source code) derived from source code is NATO/PFP UNCLASSIFIED. Object code that contains debugging information derived from source code is NATO RESTRICTED.

(3)   Executable   code: NTSS   executable   code   is   NATO/PFP UNCLASSIFIED.

(4)   Database Files. Any files external to NTSS object and executable code that contain a database, in any medium of exchange, shall be labeled and handled with no less than the NATO/PFP UNCLASSIFIED classification. Data internally embedded in NABK object code or executable code are handled as object or executable code.

(5)   Documentation. All or any portion of NTSS documentation, in any medium of exchange, shall be labeled and handled as NATO/PFP UNCLASSIFIED information. NATO member countries incorporating NTSS documentation, or any portion thereof, into a national application shall protect the resultant interface source code with no less than the NATO/PFP UNCLASSIFIED classification.

b.   Disclosure to a NATO Member Government. NTSS software (source, object, and executable code), and any derivative source code or documentation may be disclosed to a NATO member government by a participating nation without prior consent of other participating nations.

c.   Disclosure to a Non-NATO Member Government. NTSS source code, documentation and any derivative source code or documentation cannot be disclosed to a non-NATO member government.

(1)   Disclosure by a Participating Nation.

(a)   NTSS object or executable code may be disclosed to a non-NATO member government following NATO regulations.

(b)   The Database Design Specification portion of the specific NTSS product domain AOP and files external to NTSS object or executable code which contain a database using the format specified in the AOP Database Design Specification may be disclosed to a non-NATO member government under an exception approved by the NATO sponsor group, NAAG, Land Capability Group 3, Sub-Group 2.

(c)   In either case, such a disclosure shall be subject to an agreement from the recipient national government stipulating that the object or executable code, documentation, or external files received will not be exported to entities other than its own contractors and that reverse-engineering of this object or executable code to obtain object code or source code is prohibited. Appropriate clauses shall be incorporated by the recipient government into contractual agreements to its contractor(s) reflecting the above requirements. In addition, the agreement from the recipient national government

3

shall stipulate that the two statements, or variants thereof, in Annex C must also be made part of any contractual agreements with its contractor(s).

(2) Disclosure by a Non-Participating Nation. NTSS object or executable code cannot be disclosed to a non-NATO member government by a non-participating nation.

d. Disclosure to a Contractor. The AOP up to NATO RESTRICTED for the specific NTSS product domain or equivalent derivation documentation may be disclosed to a prospective or candidate contractor interested in providing a bid to an announced contract competition by a NATO member government without further disclosure allowed. NTSS software (defined under "Software" in Annex A), AOP and any derivation source code or documentation may be disclosed to any contractor contracted by a NATO member government without further disclosure allowed expect for that contained below.

e. Disclosure and Export by a Contractor

(1) Disclosure and Export by a Participating Nation's Contractor. A participating nation's contractor(s) may disclose or export NTSS software and AOP or any derivative source code and documentation to a NATO member government without prior consent of other participating nations provided that the disclosure conforms to the Export Laws of the Nation concerned. For disclosure or export to a non-NATO member government, the participating nation shall ensure its contractor(s) also abides by the disclosure procedures of paragraph 8.c above.

(2) Disclosure and Export by a Non-Participating Nation's Contractor. A non-participating nation must ensure that its contractor(s) cannot disclose or export any parts of NTSS software or AOP or any derivative source code or documentation to the government of any other country or any individual, group, or organizational entity, whatsoever.

(3) Contractual Agreements. Appropriate clauses shall be incorporated into contractual agreements reflecting the above security classification, disclosure, and export requirements. Any contractual agreement including the release of NTSS source and object codes or documentation which could lead to modification or either NTSS software or NTSS documentation shall include clauses stating that NATO member countries have the following rights regarding the NTSS modified software and documentation; which they may exercise without any charge:

-- to use it without any time limit,
-- to integrate totality or part of it or make it integrated in other software elements,
-- duplicate it or make it duplicated without limitation of time or number of duplicates,
-- to modify it or make it modified at any time,
-- to evaluate it or make it evaluated at any time.

However, where any such changes are made, the nation concerned must report this to the NATO sponsor group, see paragraph 7 above.

f.   Illustration of Process. A flow diagram of the above disclosure principles for the NTSS is at Annex B.

9.   Use of NTSS Software and Documentation. The NTSS is designed to enable each nation to substitute or add nationally developed modules. When each nation implements all or a portion of the NTSS into its national application, it is desired that problems, solutions, and any improvements be shared with AC/225 Land Capability Group 3, Sub-Group 2 so that an updated version of the NTSS can be developed as appropriate according to the structure, techniques, and procedures established in paragraph 5.
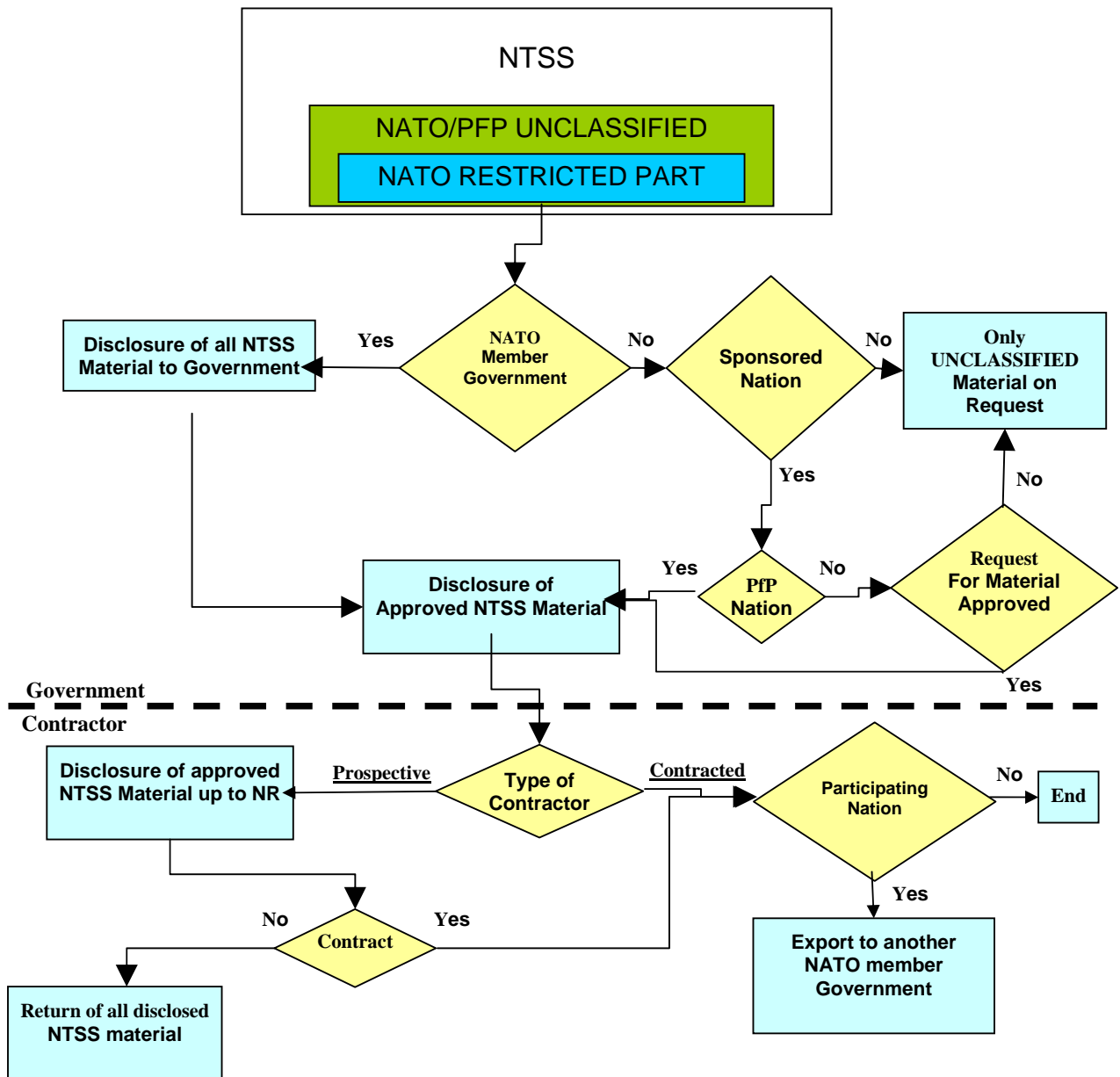
IMPLEMENTATION OF AGREEMENT

10.   This STANAG is implemented when a member country uses or incorporates all or any portion of NTSS software (source code, object code, or executable code) and/or documentation. That member country must then adhere to the disclosure controls in paragraph 8.

DEFINITION OF TERMS

Contractor	-	An individual, group, or organizational entity contracted by a government and performs work requiring NTSS documentation or code under the direction of this government
Executable code	-	Code which will directly allow a computer to perform programmed instructions
Object code	-	Code output from a source code compilation process or that derived from other object code
Participating nations	-	The subset of NATO nations and sponsored nations actively involved in the development of the NTSS
PfP nation	-	Any Partnership for Peace nation listed on the current NATO maintained PfP list.
Reverse-engineering	-	The process of obtaining source code by whatever means from object or executable code
Sharable	-	The state of being exchangeable between/amongst two or more NATO nations
Software	-	In the context of "NTSS Software", this means source, object and executable code
Source code	-	A set of instructions in an accepted computer language in text format from which object and executable code are derived
Sponsored nation	-	Any non-NATO nation receiving direct sponsorship by a NATO participating nation in order to be able to contribute to the development of the NTSS and/or be eligible to receive approved software and/or approved documents.

FLOW DIAGRAM OF THE DISCLOSURE PRINCIPLES FOR THE NATO TECHNICAL SHARABLE SOFTWARE

NTSS

NATO/PFP UNCLASSIFIED

NATO RESTRICTED PART

Disclosure of all NTSS Material to Government

Yes — NATO Member Government — **No** — Sponsored Nation — **No** — Only UNCLASSIFIED Material on Request

Yes

Disclosure of Approved NTSS Material — **Yes** — PfP Nation — **No** — Request For Material Approved — **No** (up) to Only UNCLASSIFIED Material on Request

Yes (Request For Material Approved back to Disclosure of Approved NTSS Material)

Government

Contractor

Disclosure of approved NTSS Material up to NR — **Prospective** — Type of Contractor — **Contracted** — Participating Nation — **No** — End

Yes (Participating Nation → Export to another NATO member Government)

Export to another NATO member Government

No — Contract — **Yes**

Return of all disclosed NTSS material

B-1

Secondary Distribution and Reverse-Engineering Statements

The following two statements are provided for use in contractual agreements governing the disclosure of NTSS object and executable code. The statements are provided to convey intent. Each NATO member country may use a variant of these statements if doing so strengthens the legal aspect of the contractual agreement.

Secondary Distribution

(by a recipient of NTSS technology, information, or code from a participating nation)

Further dissemination, distribution, or disclosure of NTSS technology, information, and/or code or any derivative is strictly prohibited without official written consent of (appropriate participating nation government authority).

(by a recipient of NTSS technology, information, or code from a non-participating nation)

Further dissemination, distribution, or disclosure of NTSS technology, information, and/or code or any derivative is strictly prohibited.

Reverse-Engineering

The act or process of obtaining NTSS technology or source code from object or executable code or NTSS object code from executable code is strictly prohibited.