

16 March 2011

NSA/0295(2011)-JAIS/4628

See CNAD AC/225 STANAG distribution

**STANAG 4628 JAIS (EDITION 1) – CONTROLLER AREA NETWORK (CAN)
PROTOCOLS FOR MILITARY APPLICATIONS**

Reference: PFP(NAAG)D(2004)0021 dated 05 July 2004

1. The enclosed NATO Standardization Agreement, which has been ratified by nations as reflected in the NATO Standardization Document 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.

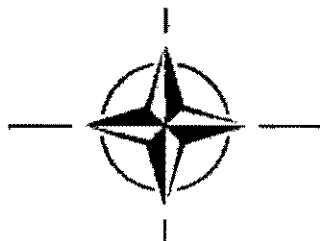
A handwritten signature in black ink, appearing to read 'Cihangir Aksit'.

Cihangir AKSIT, TUR(CIV)
Director, NATO Standardization Agency

Enclosure:
STANAG 4628 (Edition 1)

NATO Standardization Agency - Agence OTAN de normalisation
B-1110 Brussels, Belgium Internet site: <http://nsa.nato.int>
E-mail: tasman.osman@hq.nato.int – Tel 32.2.707.4300 – Fax 32.2.707.4103

**NORTH ATLANTIC TREATY ORGANIZATION
(NATO)**



**NATO STANDARDIZATION AGENCY
(NSA)**

**STANDARDIZATION AGREEMENT
(STANAG)**

SUBJECT: CONTROLLER AREA NETWORK (CAN) PROTOCOLS FOR
MILITARY APPLICATIONS

Promulgated on 16 March 2011

A handwritten signature in black ink, appearing to read 'Cihangir AKSIT', is positioned above the printed name and title of the signatory.

Cihangir AKSIT, TUR(CIV)
Director, NATO Standardization Agency

RECORD OF AMENDMENTS

No.	Reference/Date of amendment	Date entered	Signature

EXPLANATORY NOTES

AGREEMENT

1. This 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 - Belgium.

NATO STANDARDIZATION AGREEMENT
(STANAG)

CONTROLLER AREA NETWORK (CAN) PROTOCOLS FOR MILITARY APPLICATIONS

1. Related Documents:
 - a. TL A-0030 Issue 1 - Digital vehicle electrical systems in Bundeswehr land vehicles designs using CAN Bus (Controller Area Network)
 - b. SAE J1939 - Recommended Practice for a Serial Control and Communications Vehicle Network
 - c. ISO 11898 Road vehicles - Exchange of digital information; CAN for high transfer rates
 - d. CANopen specification -EN50325-4
 - e. MilCAN A – Available from <http://www.milcan.org>
- (1) Physical Layer Specification - HSDB-APP-GEN-D-030 Revision 3
- (2) Data Link Layer Specification - IHSDB-APP-GEN-D-031 Revision 4
- (3) Application Layer Specification -IHSDB-APP-GEN-D-032 Revision 2
- (4) System Management Layer Specification - IHSDB-APP-GEN-D-036 Revision 1
- f. MilCAN B Available from <http://www.milcan.org>
- (5) Physical Layer Specification - HSDB-APP-GEN-D-033 Revision 1
- (6) Data Link Layer Specification - IHSDB-APP-GEN-D-034 Revision 1
- (7) Application Layer Specification -IHSDB-APP-GEN-D-035 Revision 1

AIM

2. The aim of this agreement is to provide guidance on the use of CAN for military land platforms. ISO standard 11898 provides the basis for the selection of CAN for military land platforms, however, selection of a higher layer protocol is required to complete the specification of CAN for this domain. Numerous higher layer protocols have been developed and this agreement provides guidance on the selection of a suitable protocol from a limited set of available protocols .

AGREEMENT

3. Participating Nations agree that when implementing CAN on military land platforms the employed higher level protocol will be selected from those stated in this agreement.

DETAIL OF THE AGREEMENT

4. Participating Nations agree to select one ore more of the following higher layer protocols when implementing CAN on military land platforms:
 - a. CAN Utilities Protocol (CUP) - see TL A-0030
 - b. MilCAN A (29 bit Identifiers) – see <http://www.milcan.org/>
 - c. MilCAN B (11 bit Identifiers) – see <http://www.milcan.org/>
 - d. SAE J1939
 - e. CANopen
5. The Custodian for this STANAG is NATO-NAAG-LCG/2. The STANAG shall be maintained as specified by the custodian. Should NATO-NAAG-LCG/2 be disbanded or if it should be decided to appoint another custodian, then the NAAG itself or another nominated subordinate group of the NAAG will assume the role of custodian.

IMPLEMENTATION OF THE AGREEMENT

6. This STANAG is implemented when a nation has issued the necessary orders putting the provisions of the STANAG into effect.