

18 December 2012

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See CNAD AC/225 STANAG distribution

**STANAG 4569 (EDITION 2) - PROTECTION LEVELS FOR OCCUPANTS OF
ARMoured VEHICLES**

References:

- A. NSA/0533-LAND/4569 dated 24 May 2004
- B. AC/225-D(2011)0012 (PFP), dated 31 May 2011

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

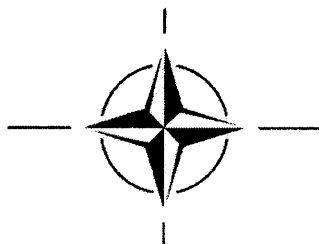
3. National staffs are requested to and, if they have not already done so, advise the Defence Investment Division through their national delegation as appropriate of their intention regarding its ratification and implementation.

A handwritten signature in black ink, appearing to read 'Cihangir AKSIT', is written over a faint, larger version of the same signature.

Dr. Cihangir AKSIT, TUR Civ
Director, NATO Standardization Agency

Enclosure:
STANAG 4569 (Edition 2)

**NORTH ATLANTIC TREATY ORGANISATION
(NATO)**



**NATO STANDARDIZATION AGENCY
(NSA)**

**STANDARDIZATION AGREEMENT
(STANAG)**

SUBJECT: PROTECTION LEVELS FOR OCCUPANTS OF ARMOURED VEHICLES

Promulgated on 18 December 2012

A handwritten signature in black ink, appearing to read 'Cihangir AKSIT', written in a cursive style.

Dr. 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>).

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FEEDBACK

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

NATO STANDARDIZATION AGREEMENT
(STANAG)

PROTECTION LEVELS FOR OCCUPANTS OF ARMoured VEHICLES

Annexes:

- A KE protection levels for occupants of armoured vehicles
- B Protection levels for occupants of armoured vehicles for grenade and blast mine threats

Related Documents:

AEP-55 Procedures for evaluating the protection level of armoured vehicles.

Volume 1 KE and artillery threats

Volume 2 Mine threats

Volume 3 IED threats (in preparation)

Volume 4 CE threats (in preparation)

AIM

1. The aim of this agreement is to standardise protection levels for armoured vehicle occupants to ensure that:

- (a) commanders in the field can select the right equipment to fulfil a mission under the given threat;
- (b) nations have a planning guide to deploy the appropriate equipment to address theatre specific threats; and
- (c) nations can develop and upgrade their equipment to match given threats.

AGREEMENT

2. Participating nations agree to adopt the two lists of protection levels outlined in Annexes A to B and to use the appropriate designation when describing their protective capabilities to other NATO nations. This will ensure interoperability in multinational missions by using equipment with matching protection levels against a given threat.

3. The protection level list is based on a 90% probability of providing protection to the occupants at a given threat. The use of AEP-55 Volumes is mandatory for testing. National Authorities may at their discretion accept any deviation from the procedures outlined in the AEP Volumes, provided the procedures used are judged equivalent and are well documented. An update of this STANAG (4569) will be produced within 3 years, when greater guidance may prove possible.

DEFINITIONS

4. The following terms and definitions are used for the purpose of this agreement:
- (a) Armoured vehicle
Vehicles which provide protection from weapons up to a maximum of 30 mm calibre.

IMPLEMENTATION OF THE AGREEMENT

5. This STANAG shall be considered to be implemented when a nation has issued the protection level lists to commanders in the field, to those responsible for deploying equipment (vehicles) and the development of testing agencies, in all instances requiring its use when describing the protection level of a national vehicle to another NATO nation.

KE PROTECTION LEVELS FOR OCCUPANTS OF ARMOURED VEHICLES

Level	KE-Threat	Reference – Artillery – Threat
6	Weapon: Automatic Cannon, 30 mm Ammunition: APFSDS and AP Distance: 500 m Angle: frontal arc to centreline: $\pm 30^\circ$ sides included; elevation 0°	Artillery 155 mm Estimated range of burst: 10 m Azimuth 360° Elevation: $0 - 90^\circ$
5	Weapon: Automatic Cannon, 25 mm Ammunition: APDS and APFSDS Distance: 500 m Angle: frontal arc to centreline: $\pm 30^\circ$ sides included; elevation 0°	Artillery 155 mm Estimated range of burst: 25 m Azimuth 360° Elevation: $0 - 90^\circ$
4	Weapon: Heavy Machine Gun, 14.5 mm Ammunition: AP Distance: 200 m Angle: azimuth 360° ; elevation 0°	Artillery 155 mm Estimated range of burst: 25 m Azimuth 360° Elevation: $0 - 90^\circ$
3	Weapon: Machine Gun and Sniper rifles, 7.62 mm Ammunition: AP tungsten carbide and AP hard steel core Distance: 30 m Angle: azimuth 360° ; elevation $0-30^\circ$	Artillery 155 mm Estimated range of burst: 60 m Azimuth 360° Elevation: $0^\circ - 30^\circ$
2	Weapon: Assault rifles, 7.62 mm Ammunition: AP steel core Distance: 30 m Angle: azimuth 360° ; elevation $0-30^\circ$	Artillery 155 mm Estimated range of burst: 80 m Azimuth 360° Elevation: $0^\circ - 22^\circ$
1	Weapon: Assault rifles: 7.62 and 5.56 mm Ammunition: Ball Distance: 30 m Angle: azimuth 360° ; elevation $0-30^\circ$	Artillery 155 mm Estimated range of burst: 100 m Azimuth 360° Elevation: $0^\circ - 18^\circ$

As notification of the protection level is advised to use the first character of the threat type followed by the protection level (e.g. K2).

PROTECTION LEVELS FOR OCCUPANTS OF ARMoured VEHICLES FOR GRENADE AND
BLAST MINE THREATS

Level		Grenade and Blast Mine threat	
4	4b	Mine Explosion under belly	10 kg (explosive mass) Blast AT Mine
	4a	Mine Explosion pressure activated under any wheel or track location	
3	3b	Mine Explosion under belly	8 kg (explosive mass) Blast AT Mine
	3a	Mine Explosion pressure activated under any wheel or track location	
2	2b	Mine Explosion under belly	6 kg (explosive mass) Blast AT Mine
	2a	Mine Explosion pressure activated under any wheel or track location	
1	Hand grenades, unexploded artillery fragmenting submunitions, and other small anti personnel explosive devices detonated anywhere under the vehicle		

As notification of the protection level is advised to use the first character of the threat type followed by the protection level (e.g. M2b).