

**MILITARY COMMITTEE AIR STANDARDIZATION BOARD
(MCASB)**

28 March 2007

NSA(AIR)0166(2007)FS/3230

MCASB

STANAG 3230 FS (EDITION 7) – EMERGENCY MARKINGS ON AIRCRAFT

Reference: MAS(AIR)63-FS/3230 dated 27 March 1998 (Edition 6).

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.
3. The MCASB, NSA considers this an editorial edition to the STANAG; previous ratifying references and implementation details are deemed to be valid.

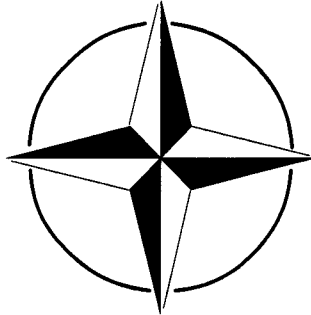
J MAJ 
Major General, POL(A)
Director, NSA

Enclosure:
STANAG 3230 (Edition 7)

NATO Standardization Agency – Agence OTAN de Normalisation
B-1110 Brussels, Belgium Internet site: <http://nsa.nato.int>
E-mail: nsa.air@hq.nato.int – Tel 32.2.707.5587 – Fax 32.2.707.5718

STANAG 3230
(Edition 7)

**NORTH ATLANTIC TREATY ORGANIZATION
(NATO)**



**NATO STANDARDIZATION AGENCY
(NSA)**

**STANDARDIZATION AGREEMENT
(STANAG)**

SUBJECT: EMERGENCY MARKINGS ON AIRCRAFT

Promulgated on 28 March 2007

J. MAJ 
Major General, POL(A)
Director, NSA

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 - BEL.

NATO STANDARDIZATION AGREEMENT
(STANAG)

EMERGENCY MARKINGS ON AIRCRAFT

Related Document : STANAG 3109 ASSE - SYMBOL MARKING OF AIRCRAFT
SERVICING AND SAFETY/HAZARD
POINTS

AIM

1. The aim of this agreement is to establish parameters for emergency markings on the outside and the inside of aircraft.

AGREEMENT

2. Participating nations agree that the parameters for emergency markings on the outside and the inside of aircraft are as detailed herein.

GENERAL

3. Emergency markings include symbols, lines, arrows and inscriptions.

4. Emergency markings shall be placed on or as near as practicable to emergency exits/entrances, emergency operating controls for canopies and hatches, break-in and cut-out areas, fire access panels, controls for the release of dinghies/rafts and flotation devices, and miscellaneous emergency equipment. An arrow should be provided to assist in locating any emergency marking that could be concealed or may not be readily apparent.

5. All emergency instruction inscriptions, whether mandatory or optional, will preferably be in English. If it is essential that an emergency instruction inscription be in another language, the English text of the instruction should appear with it.

6. Emergency instruction inscriptions in addition to those detailed herein may be placed on the inside of aircraft if:

- a. There is a definite requirement for instructions to crew or passengers in the air; or
- b. They contain emergency or warning information which, if neglected, would likely result in damage to aircraft or injury to personnel.

7. Throughout this agreement the colour for emergency markings is specified as "orange/yellow or black". When so specified, orange or yellow is the preferred colour for the marking, but black may be used if this provides greater or more acceptable contrast. The colours may be luster or matt, as required.

8. If the colour prescribed for emergency markings on the inside of aircraft does not provide suitable contrast, the background shall be painted in a colour which provides suitable contrast, preferably a black background for orange/yellow markings or an orange/yellow background for black markings.

9. The contrast of emergency markings on the outside of aircraft, excluding search and rescue aircraft and training aircraft, should not exceed the maximum acceptable contrast for combat operations. Maximum acceptable contrast for combat operations shall be determined by the nation operating the aircraft. If the colour prescribed is not acceptable for use on the outside of an aircraft, another acceptable colour, preferably gray or pale yellow, may be used.

10. If the colour prescribed for an emergency marking does not provide sufficient protection from thermal flash, another similar colour having a reflectivity value of at least 50% may be used.

EMERGENCY EXITS/ENTRANCES

11. Emergency exits/entrances include doors and hatches intended for use in an emergency and other exits/entrances that can be used in an emergency without being broken open. Doors and hatches intended for normal use that will be usable in an emergency are also considered to be emergency exits but their marking in accordance with this agreement is not mandatory. The marking of emergency exits/entrances should be applied on the inside and the outside of aircraft as follows:

- a. On the Inside of Aircraft. A continuous or broken line, at least 2.54 cm (1 inch) in width and orange/yellow or black in colour, shall be painted around the periphery of emergency exits. The inscription "EMERGENCY EXITS" or "DITCHING EXIT", having lettering at least 2.54 cm (1 inch) in height and orange/yellow or black in colour, shall be painted on or near emergency exits and as near as practicable to the operating controls. Slanted stripes, at least 0.64 cm (0.25 inch) in width and alternating orange/yellow and black in colour, shall be painted on the operating controls for emergency exits, OR a continuous line, at least 1.27 cm (0.5 inch) in width with slanted segments at least 0.64 cm (0.25 inch) in width and alternating orange/yellow and black in colour, shall be painted around the periphery of operating controls for emergency exits. An inscription of simple operating instructions (such as "PULL" or "TURN"), having lettering at least 1.27 cm (0.5 inch) in height, and an arrow, at least 7.62 cm (3 inches) in length by 0.32 cm (0.125 inch) in width, indicating the direction of operation shall be painted near operating controls. The instructions inscription and arrow shall be orange/yellow or black in colour.
- b. On the Outside of Aircraft. A continuous or broken line, at least 0.64 cm (0.25 inch) in width and orange/yellow or black in colour, shall be painted around the periphery of emergency entrances. Otherwise, emergency entrances shall be marked similarly to emergency exits. Because some features on the outside of emergency exits (such as operating controls) may not be the same as on the inside, only the applicable markings as detailed in sub-paragraph 11.a. shall be applied on the outside of aircraft.

EMERGENCY OPERATING CONTROLS FOR CANOPIES

12. Slanted stripes, alternating orange/yellow and black in colour, shall be painted on emergency operating controls for canopies, OR a continuous line, at least 2.54 cm (1 inch) in width with slanted segments at least 0.64 cm (0.25 inch) in width and alternating orange/yellow and black in colour, shall be painted around the periphery of emergency operating controls for canopies. The inscription "CANOPY", having lettering at least 2.54 cm (1 inch) in height and orange/yellow or black in colour, shall be painted near the emergency operating controls. An inscription of simple operating instructions, such as "TURN TO RELEASE" or "PULL TO RELEASE" having lettering at least 1.27 cm (0.5 inch) in height, and if applicable, an arrow, at least 7.62 cm (3 inches) in length by 0.32 cm (0.125 inch) in width, indicating the direction of operation shall be painted near the emergency operating controls. The instructions inscription and arrow shall be orange/yellow or black in colour. A locating arrow, at least 45.32 cm (18 inches) in length by 7.62 cm (3 inches) in width and orange/yellow edged with black in colour, containing the inscription "RESCUE", having lettering at least 2.54 cm (1 inch) in height and black in colour, shall be painted on the outside of aircraft to clearly indicate the location of emergency operating controls.

CONTROLS FOR RELEASE OF DINGHIES/RAFTS AND FLOTATION DEVICES

13. Slanted stripes, alternating orange/yellow and black in colour, shall be painted on the release controls for dinghies/rafts and flotation devices, OR a continuous line, at least 2.54 cm (1 inch) in width with slanted segments at least 0.64 cm (0.25 inch) in width and alternating orange/yellow and black in colour, shall be painted around the periphery of release controls for dinghies/rafts and flotation devices. An inscription indicating the feature activated by a release control (such as "DINGHY"), having lettering at least 2.54 cm (1 inch) in height and orange/yellow or black in colour, shall be painted near release controls. An inscription of simple operating instructions (such as "TURN TO RELEASE"), and if applicable, an arrow, at least 7.62 cm (3 inches) in length by 0.32 cm (0.125 inch) in width, indicating the direction of operation shall be painted near release controls. The instructions inscription and arrow shall be orange/yellow or black in colour, and the lettering shall be at least 1.27 cm (0.5 inch) in height.

BREAK-IN AND CUT-OUT AREAS

14. A broken line, at least 1.27 cm (0.5 inch) in width with rectangular segments at least 2.54 cm (1 inch) in length and orange/yellow or black in colour, shall be painted around the periphery of areas to be broken in or cut out. The inscription "CUT HERE" or "EMERGENCY RESCUE CUT HERE", having lettering at least 2.54 cm (1 inch) in height and orange/yellow or black in colour, shall be painted on or near areas to be broken in or cut out. On aircraft with fluorescent markings, the colour of emergency markings for areas to be broken in or cut out may be black or red.

FIRE ACCESS PANELS

15. A continuous line, at least 1.27 cm (0.5 inch) in width and red in colour, shall be painted around the periphery of fire access panels. The inscription "FIRE ACCESS", having lettering at least 2.54 cm (1 inch) in height and red in colour, shall be painted on fire access panels.

MISCELLANEOUS EMERGENCY EQUIPMENT

16. When emergency equipment, such as fire extinguishers, asbestos gloves, axes and crowbars, are carried on aircraft and are easily accessible from the outside, the location and type of equipment should be shown as follows. A full size silhouette of the equipment, black in colour, should be painted on the outside of the aircraft in a location corresponding to the precise stowage position of the equipment. An inscription indicating the type of equipment such as "FIRE EXTINGUISHER STOWED HERE", having lettering at least 2.54 cm (1 inch) in height and orange/yellow or black in colour, should be painted near the silhouette. For first aid kits, the marking shall be the International Red Cross symbol or the international Geneva Cross symbol.

IMPLEMENTATION OF THE AGREEMENT

17. This STANAG is implemented when the provision herein have been included in the appropriate national orders/instructions or manuals.