

## APPENDIX

## NATO STANDARDIZATION AGREEMENT (STANAG) 2047, ANNEX A

## EMERGENCY ALARM AND WARNING SIGNALS

## Related documents:

STANAG 2002 NBC -- Warning signs for the marking of contaminated or dangerous land areas, complete equipments, supplies and stores.

STANAG 2104 NBC -- Friendly nuclear strike warning.

STANAG 2889 ENGR -- Marking of hazardous areas and routes through them.

ATP-45 -- Reporting nuclear detonations, biological and chemical attacks, and predicting and warning of associated hazards and hazard areas.

1. The aim of this agreement is to provide a standard method of giving emergency alarms within the NATO forces operating on land for --
  - a. Nuclear, biological, or chemical (NBC) hazards and strikes.
  - b. Air attack.
2. Participating nations agree that NATO forces, when operating on land, will use the alarm signals detailed herein to give emergency alarms of hazard or attack. Audible and visual alarm signals must be given in all cases as soon as an attack or the presence of a hazard is detected. The alarm signals will be repeated throughout the unit area by all who hear or see the original alarm signal since most available alarm signals are generally limited in range. Additionally, audible and visual alarm signals should normally be supplemented by the simultaneous use of radio, telephone, and public address systems.
3. It is unlikely that personnel can understand and react quickly and correctly to more than two alarm signals. The following hazards require fast and correct reaction: use or presence of chemical or biological agents, and an imminent air attack. Therefore, alarm signals for these two hazards are mandatory (see Note 1). In the case of radiological contamination, a delay in personnel taking cover may be acceptable.
4. The spoken word (vocal alarm signals) remains the most effective means of informing troops in an emergency.
5. Visual alarm signals are included to supplement the audible alarm signals under conditions when audible signals may be lost due to other noises or to replace audible signals when the tactical situation does not permit the use of sound.
  - a. Reliance should not be placed on visual alarm signals during the hours of darkness or in conditions of poor light.
  - b. Visual alarm signals should be used when purely audible signals may be lost due to other noise.

c. Visual signals should be used to warn those personnel arriving at a particular location of an imminent hazard.

d. Apart from the audiovisual signals detailed at paragraph 2, Note 2, of Annex A, normal signal flares are excluded from use as a color alarm signal for NBC and air attack.

e. Visual signals need not be displayed by mobile forces.

6. The actual form of a visual signal and method of display are left to the discretion of the local commander. Only the color at Annex A is mandatory. However, to aid recognition, it is recommended that the red signal preferably be square and the black signal preferably be triangular.

7. The alarm signals listed in this agreement are primarily intended to serve as alarms of enemy action. They may be used, however, in an emergency when friendly action could produce similar effects on own forces.

8. Conflict with civil regulations. Alarm signals for use by NATO forces operating on land are in Annex A. There are some differences between the alarm signals prescribed herein and some national civil defense alarm signals. These differences are considered minor for air attack. Reservations are indicated by each nation where nations or local regulations prohibit NATO Forces operating in their territory from sounding alarm signals in exercises and/or alarm signals incompatible with the public warning system in wartime.

Note: No reference is made to ground attack in order to reduce to a minimum the number of signals. Signals for ground attack, if deemed necessary, remain the prerogative of field commanders.

9. Practice alarm signals. In those cases where nations or local regulations preclude sounding alarm signals during exercises, local commanders should negotiate with local authorities to obtain authorization to sound alarm signals periodically. In the absence of agreement, small alarm devices emitting sounds similar to the prescribed audible alarm signals and having limited range should be used during exercises to keep personnel familiar with the audible alarm signals.

10. This STANAG is implemented when the necessary orders and/or instructions have been issued directing forces concerned to put the content of this agreement into effect.

11. Table A-1 shows the emergency alarm and warning signals for NATO forces operating on land. In respect to the audible alarm signal, one or more of the signals listed below should be used.

Table A-1. Emergency alarm and warning signals for NATO forces operating on land.

TYPE OF HAZARD	VISUAL WARNING SIGNAL	AUDIBLE ALARM SIGNAL
1a. Imminent air attack.	1b. Red -- preferably square in shape.	1c.(1) Unbroken warbling siren for one minute. (2) Succession of long blasts on vehicle horns, whistles, bugles or other wind instruments in a ratio of 3:1; approximately 3 seconds on and 1 second off. (3) Vocal "Air attack," or corresponding national term where only one nation is involved.
2a. Imminent arrival of chemical or biological agents, or radiological hazards.	2b.(1) Black -- preferably triangular in shape. (2) Donning respirators and taking protective action, followed by such hand signals as may be prescribed in local instructions (see Notes).	2c.(1) Interrupted warbling sound or presence of a siren. (2) Succession of short signals on vehicle or other horns or by beating metal or other objects in a ratio of 1:1; approximately 1 second on and 1 second off. (3) Vocal "Gas, gas, gas" or corresponding national term where only one nation is involved. (4) Vocal "Fallout, fallout, fallout" or corresponding national term where only one nation is involved.
3a. All clear.	3b. Removal of appropriate warning signal.	3c.(1) Vocal "all clear (specify type of attack)" or corresponding national term when only one nation is involved. (2) If used, a steady siren note for one minute or a sustained blast on a vehicle horn, whistle, bugle, or other wind instrument to indicate absence of all NBC and air attack hazards.

NOTES: 1. Automatic alarms for the early and rapid detection of biological and chemical agents and radiological hazards may complement the devices referred to previously.

2. A special audiovisual pyrotechnic signal producing a whistle sound and a yellow, red, yellow display of lights may be used. The combination of colours should be produced as near simultaneously as possible.

3. Wearing respiratory protection in the presence of radiological hazard is not mandatory but will be decided by the local commander.