

ATP-2(B)
VOLUME II
NAVAL CO-OPERATION AND
GUIDANCE FOR SHIPPING
MANUAL
(NCAGS)

GUIDE TO OWNERS,
OPERATORS, MASTERS
AND OFFICERS

DECEMBER 2006

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NORTH ATLANTIC TREATY ORGANIZATION
NATO STANDARDIZATION AGENCY (NSA)
NATO LETTER OF PROMULGATION

December 2006

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CHAPTER 1

General Information

0101 Introduction

The North Atlantic Treaty Organisation's (NATO) review of its policy for operations involving merchant shipping has led to the development of Naval Co-operation and Guidance for Shipping (NCAGS).

0102 Purpose and Scope

To provide information to Ship Owners, Operators, Masters and Officers regarding the interaction between Naval forces and commercial shipping. In particular, this publication serves as a handbook for the world-wide application of NCAGS principles and procedures that exist to enhance the safety of shipping in times of tension, crisis, or conflict.

a. Where necessary, the lead responsibility for the implementation of NCAGS will be as follows:

- (1) In the Area of Operations (AOO): The Military Commander (MC).
- (2) In NATO countries and their overseas territories: The nation concerned.
- (3) In all other areas: One NATO nation is to assume responsibility on behalf of NATO, as agreed among members, for planning operations outside the NATO area.

b. A lower level of NCAGS procedures (eg picture compilation) may be activated before the implementation of an NCAGS operation, either by NATO or nations involved.

0103 Benefits of NCAGS

1. To Merchant Shipping. NCAGS can provide the following principal benefits to merchant shipping when co-operating with the military:

- Enhanced safety and security.
- Reduced delays when transiting through military areas of operation.
- Continued operation of commercial maritime transport system.
- Improved threat response.
- Enhanced understanding of military constraints.
- Potential for reduced war-risk premiums.

2. To the Military Commander. NCAGS can provide the following principal benefits to the military:

- A more comprehensive picture of merchant shipping activity, movements and positions.
- Reduced interference between commercial shipping and military operations (deconfliction).
- Enhanced safety and security.
- Improved effectiveness of military operations.
- Enhanced understanding of commercial shipping constraints.
- Improved counter-terrorism capability.

0104 Background

Maritime trade is a fundamental strategic interest to nations and their economic well-being depends on freedom of movement on the seas. Military operations at sea will frequently involve, or have some impact, on merchant shipping and likewise merchant shipping may affect military operations. Co-operation between the military and commercial shipping can minimise delays and afford protection to merchant ships when transiting through maritime areas of operation.

0105 Mission of NCAGS

To provide NCAGS support to military commanders and merchant shipping in peacetime, tension, crisis and conflict through co-operation, guidance, advice, assistance and, where necessary, supervision. Additionally, to provide military guidance, advice or assistance in respect of participating nations' global, maritime commercial interests to enhance the safety of merchant vessels and to support military operations.

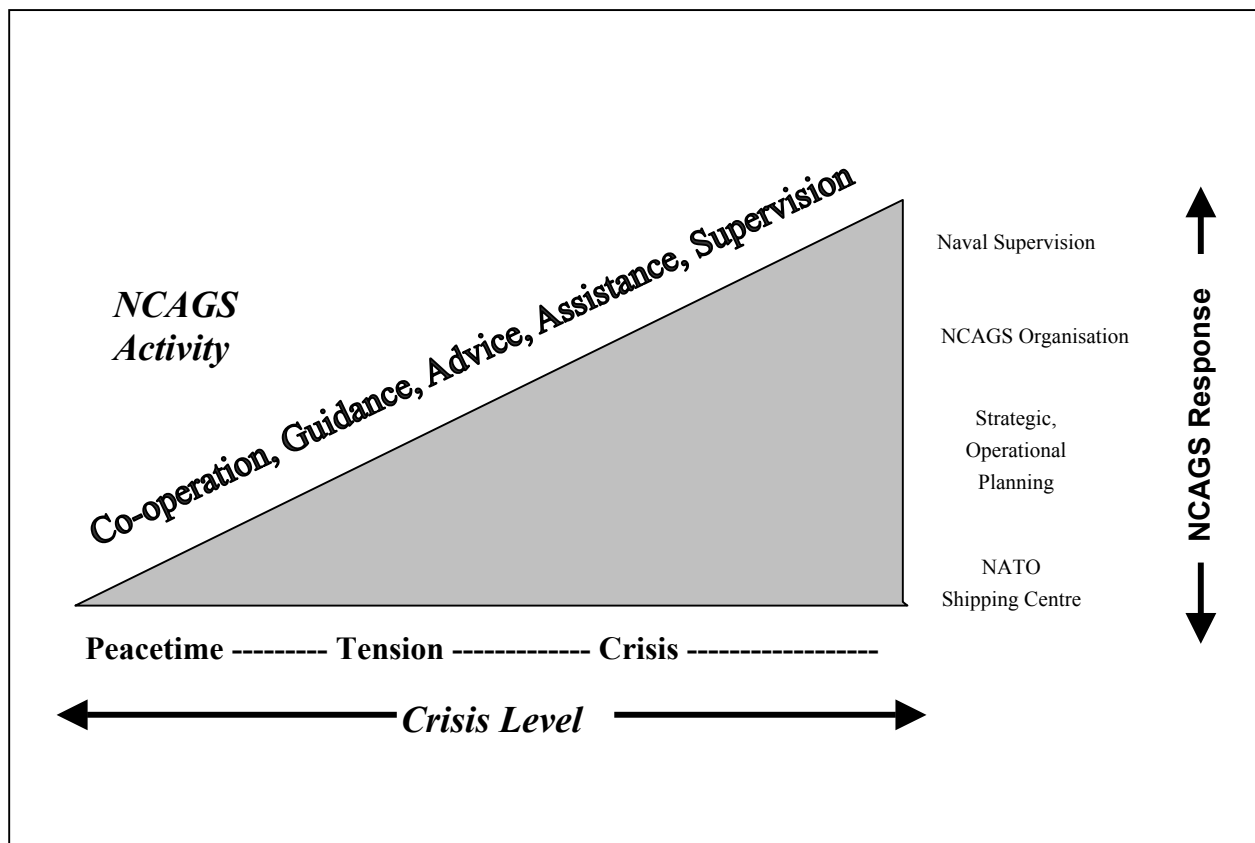


Figure 1-1. Naval Co-operation and Guidance for Shipping

0106 Application of NCAGS

The NCAGS organisation (NCAGSORG) can support and participate in a broad range of military operations. These include but are not limited to:

- a. Operations relating to the safety, security and enhanced protection of merchant ships.
- b. Crisis Response Operations (CRO).
- c. Operations to support homeland defence and security tasks and maritime anti-terrorism.

0107 Concept

1. NCAGS promotes co-operation between military and civil maritime authorities and agencies and the commercial shipping industry.
2. Merchant ships can participate in NCAGS activities on a voluntary basis as guided by their National Shipping Authorities (NSA), owners, operators or charterers.
3. Masters will be asked to provide basic information concerning their ship, cargo and voyage details. This information will be assessed to produce an accurate shipping picture, which is critical to the accomplishment of the NCAGS mission. In times of increased tension or conflict, additional information may be requested. The commercial sensitivity of the information supplied by the merchant shipping community will be respected and protected.

4. The NCAGSORG will in turn ensure that appropriate military authorities are advised of these details for monitoring during the voyage. If deemed necessary, the NCAGSORG will provide the Merchant Master with up-to-date information concerning the situation and specific information on the voyage. This information can range from basic situation briefs to the provision of recommended routes and escort instructions. Specific details of these activities and the sharing of information are contained in Chapter 2.
5. Under normal circumstances, a military commander will not alter the destination of a merchant ship without the approval of the ship's owner, operator, Master or flag state. The military commander may, however, advise a diversion from a ship's planned route as necessary for safety or operational reasons.
6. Safe passage responsibility remains with the Master.
7. Examples of areas of mutual interest between the military and the Merchant Shipping community:
 - a. The Military may be tasked to protect Merchant Shipping against military or terrorist threats.
 - b. Nations and the Merchant Shipping community have a vested interest in ensuring that maritime trade is upheld to support the economy.
 - c. It is in the interest of both military and Merchant Shipping to be able to identify bona fide shipping, to minimise interference with such ships, and to be able to focus on those ships that do not comply with international law or UN Security Council resolutions and conventions.
 - d. Military regularly charters Merchant Ships to carry equipment and supplies in connection with deployment of forces.
 - e. During operations to prevent conflicts or in connection with peacekeeping after a conflict, maritime trade contributes to the stabilisation of a region, while this represents business opportunities for the Merchant Shipping industry.
 - f. Humanitarian Operations.

0108 Strategic Planning for Merchant Shipping

The Planning Board for Ocean Shipping (PBOS) co-operates closely with both the NCAGSORG and merchant shipping under the guidance of the NATO Senior Civil Emergency Planning Committee (SCEPC). PBOS is responsible for developing and maintaining plans for civil shipping support to the Alliance in crisis and war, including planning for acquiring the civil shipping resources necessary to meet military sealift requirements. PBOS maintains a cadre of civil shipping experts from industry to support NATO crisis management arrangements. PBOS also works closely with Partnership for Peace (PfP) nations. Each nation is responsible for its own emergency planning for merchant ships including national control and direction during crisis.

CHAPTER 2

NCAGS Operations

0201 Definitions

1. The definitions and descriptions given below are not exhaustive, but include those required in order to conduct NCAGS operations (see List of Acronyms and Glossary).

a. Naval Co-operation and Guidance For Shipping (NCAGS). The provision of NATO military co-operation, guidance, advice, assistance and supervision to merchant shipping to enhance the safety of participating merchant ships and to support military operations.

b. Merchant Shipping. For the purposes of NCAGS, merchant shipping includes the complete commercial maritime industry, including the fishing industry.

c. Participating Merchant Ships. Any merchant ships, including fishing vessels, which by the submission of the appropriate proforma, are participating in a NCAGS operation.

d. Designated Merchant Ships. Merchant ships nominated as 'designated' by NATO through their NSA. These ships may have priority over other ships for higher level NCAGS activities and under Naval Supervision of Merchant Ships will comply with military orders. On request, the North Atlantic Council (NAC)/Defence Planning Committee (DPC)¹ may allow non-NATO nations to nominate ships.

e. Crisis Response Shipping. All shipping employed in support of allied military operations, including ships taken up from trade, chartered shipping and, when appropriate, national pre-positioned ships.

f. Naval Supervision of Merchant Ships. The ultimate response of NCAGS exercised by naval authorities of mandatory routing, control of movement and/or convoy organisation. Naval Supervision of Merchant Ships will be implemented only with NAC/DPC approval.

g. NCAGS Area. A geographical area within which the NCAGS organisation conducts NCAGS activities. The objective of such an area is to maximise the co-operation between MCs and merchant shipping.

h. Communication Reporting Gates (CRG). A geographical reference point/line at which merchant ships are to call the NCAGSORG in order to establish initial contact or to update previous information. The CRG allows the MC timely information about merchant ships approaching the Area of Operation (AOO).

i. Shipping Risk Area (SRA). A geographical area of higher or specific risk to merchant ships. Guidance will be provided to participating merchant ships to help them understand the nature and extent of the risk in the area and, if applicable, to recommend specific routes through the area.

¹ The NAC/DPC represents the highest political level in NATO.

0202 NCAGS Organisation

1. Overview. The NCAGSORG supports two distinct entities: the military commander and the merchant shipping community. Therefore it supports both military operations and enhances the safety of merchant ships, while keeping mutual interference to a minimum.

2. Elements of the NCAGSORG. The NCAGSORG is flexible in order to meet the needs of the military commander and merchant shipping. It may comprise some or all of the following elements tailored to suit the situation depending on the level of NCAGS support required.

a. NCAGS Commander (NCAGS CDR). The Officer assigned to command the NCAGS organisation. The NCAGS CDR is typically also the commander of the naval force.

b. NATO Shipping Centre (NSC). A permanent organisation in the NATO headquarters at Northwood (GBR) tasked with establishing and maintaining links with the military, merchant shipping, NSAs and international maritime agencies. The detailed tasks of the NSC are described in Annex 2A.

c. Shipping Co-operation Point (SCP). The location where NCAGS staff will gather information on local merchant shipping and naval operations and will provide the means to brief merchant shipping on risks, routeing and organisation for protection. The SCP will, depending on the level of an operation, encompass co-ordination, co-operation or, when Naval Supervision of Merchant Ships is authorised, control. The location of SCPs will be at the discretion of the NCAGS CDR and can be ashore or afloat. The SCP liaises with local and regional authorities including port authorities, shipping agents, and local shipping companies and reports ship movements to other elements of the NCAGSORG.

d. NCAGS Unit. A team of NCAGS personnel, deployed ashore or afloat, to provide specific local NCAGS services including the gathering of local merchant shipping information, providing guidance to merchant ships and co-operating with and advising local merchant shipping.

e. NCAGS Liaison Officer (NCAGS LO). An officer deployed aboard a merchant ship to provide liaison between the merchant ship Master and military authorities. The NCAGS LO is the naval advisor to the merchant Master. His position on board does not affect the Master's responsibilities for the safe navigation and safe handling of the ship. The NCAGS LO makes military knowledge available to the Master to allow the Master to understand the naval and military requirements that are applicable. This may include any or all of the following:

- (1) Brief and inform on the situation.
- (2) Explain and interpret information contained in Sailing Instructions (see Annex 2B).
- (3) Collect and disseminate ship's data, voyage intention, and information of interest.
- (4) Check, monitor and report on equipment and publications of interest.
- (5) Assist ship's Master and Officers in tactical communications and manoeuvring procedures as necessary.
- (6) Provide relevant information to naval authorities on operations in the area.
- (7) Act as an interpreter of military language and expressions.

(8) Allow for secure exchange of classified information.

(9) Debrief the Master at the end of each voyage.

3. Principal NCAGS Capabilities

a. Enhanced Safety of Merchant Ships. NCAGS provides military information and advice to merchant shipping to enhance the safety of merchant ships during military operations.

b. Deconfliction. Deconfliction prevents merchant shipping traffic from conflicting or interfering with an operational mission. Adjustments can be made to naval forces activity and merchant shipping movement as necessary to minimise mutual interference.

c. Civil/Military Interface. The NCAGSORG provides information on merchant shipping to the MC. It acts as the liaison between merchant shipping and the military and will establish reporting requirements.

d. Ship Data Compilation. The NCAGSORG maintains and monitors a database of shipping information, such as, position, course, speed and destination.

0203 Conduct of NCAGS

The NCAGS functions utilised in any particular operation will be determined by the level of risk, threat and military operational requirements but will also focus on the safety of merchant ships in the area. The functions include, but are not limited to:

a. Guidance to Merchant Ships. Guidance will be provided to participating merchant ships to help them understand the nature and extent of the risk in the area. The acceptance of guidance is purely voluntary and intended to allow merchant ships to determine their own voyage.

b. Guidance to Fishing Vessels

(1) The presence of fishing vessels in an MC's AOO may complicate the tactical situation such that the MC will wish to have some degree of oversight of them. Fishing grounds and access to them will be kept open whenever operational circumstances permit.

(2) The NCAGSORG will provide information concerning fishing in the AOO that will include the whereabouts of fishing grounds, numbers and types of fishing vessels, locations and type of fixed fishing gear.

(3) Fishing vessels may take part in the NCAGS operation voluntarily as Participating Ships, or they may be designated by nations in the same way as other merchant ships.

c. Merchant Ship Movements. The monitoring of regular updates of merchant ship movements is critical to provide an accurate shipping picture and this has the potential to reduce the threat risk to participating merchant ships. It is of the utmost importance that merchant ships make every effort to update position and movement information as requested by the NCAGSORG.

d. Protection of Merchant Ships. The employment of military forces or procedures to prevent or defend against offensive actions directed at merchant ships.

(1) Accompaniment. A voluntary arrangement in which merchant ships may be organised for passage through a specific area of increased risk in company with military assets. Details will be promulgated via navigational warning (NAVWARN). Accompaniment does not imply direct protection by military assets; however, the presence of military assets may act as a deterrent to any unlawful interference to merchant ships.

(2) Lead-through. Lead-through is designed to minimise the risk to merchant ships transiting mined areas, and to facilitate the liaison between these ships, and the on-scene Mine Countermeasures Commander (MCM) for safe navigation purposes. Details will be promulgated via NAVWARN. NCAGS can recommend and facilitate the organisation of lead-through operations for merchant ships.

(3) Escort. A combatant unit assigned to accompany and protect another force or convoy.

(4) Convoy. NCAGS can recommend and facilitate convoy operations for merchant shipping. The purpose of convoy operations is to escort and to protect merchant ships by means of military assets through a specific area with higher risk due to unlawful interference. The safe passage of a convoy depends on the organisation before sailing, the management and control at sea and the skilful handling of each ship while in convoy. Ships in convoy sail under military command. Merchant ships under naval supervision have to follow the orders of the Convoy Commodore, other merchant ships cannot be forced to take part in a convoy organisation, but they can be integrated on a voluntary basis. Masters are at all times responsible for the crew, safe navigation and handling of their ship. Details will be promulgated via NAVWARN.

e. Dispersal and Emergency Movement of Merchant Ships. The procedures outlined are conducted in association with Civil Emergency Plans (CEP) produced by national authorities. On these occasions all ships, whether participating or not, will be involved. The NCAGSORG can be used to both assist and facilitate nations' CEPs.

(1) Dispersal. The re-berthing of ships within a port area or working/holding anchorages in the vicinity. Dispersal may be ordered when it is considered that the concentration of ships raises the likely hood of major attack. Dispersal can be ordered in a port or area by military or national authorities, as required by the threat level. Port Authorities will carry out this action with possible military assistance.

(2) Emergency Movement. The execution of Diversion, Port Evacuation, Area Evacuation and subsequent movements in order to preserve hulls and cargoes when attack in a port or area is imminent. The majority of these movements are based on national CEPs, although military commanders can order any element if the risk assessment is considered to be high.

(3) Immediately Vital Cargo (IVC).

(a) Definition. A cargo already loaded, which the consignee country regards as immediately vital for the prosecution of the major conflict or for national survival, notwithstanding the risk to the ship. If the cargo is carried in a ship of another nation, then that nation must agree to the delivery of the cargo. The use of this term is limited to the period of implementation of the shipping movement policy.

(b) Declaration of IVCs. Nations will declare IVCs through their National Shipping Authorities.

0204 NCAGS Forms

1. Format Alfa is the principal means by which merchant ship data is collected for use by the NCAGSORG.
2. Sailing Instructions (SI) are issued to all ships transiting a SRA.
3. Further information on these forms is contained at Annex 2B.

0205 Actions

1. Nations.

a. Nomination of Designated Ships. Nations who wish to nominate ships as 'Designated' will supply the MC, via their NSA (or equivalent) with a list of ships and their International Maritime Organization (IMO) number. Designated Ships may include national ships, those from dependent territories, and named ships assessed as being of economic benefit to that nation.

b. National Co-operation and Co-ordination. Nations should ensure close co-operation and co-ordination between civilian and military authorities and provide adequate communication facilities with merchant ships for emergency purposes. In particular, nations should encourage a close working arrangement between government, shipping companies, port authorities, other appropriate maritime organisations and the NSC. Arrangements should be made for the speedy interchange of vital information concerning movements of national shipping, harassment or hostile actions.

2. Operators and Shipping Companies. To avoid confusion in a period of tension or crisis, or in the early days of conflict, clear advice should be issued in peacetime to Masters of national participating and/or designated merchant ships. There must be no doubt regarding the actions to be taken by Masters and sources from which they may expect guidance or instructions. Such guidance and instructions are to be issued and updated regularly by shipping companies as received from national authorities.

3. Masters.

- a. Send reports of Position and Intended Movement (PIM) according to instructions received from the Owner or Operator.
- b. Comply with guidance provided by the NCAGSORG, giving due consideration to owner instruction, and maintaining due diligence and safety.

4. Military Commander.

- a. Pass relevant information to merchant ships in the AOO, via the NCAGSORG.
- b. If required, establish advisory routes for merchant ships in the AOO (see Annex 2C).
- c. If required, organise and enhance protection in the AOO.

0206 Merchant Shipping Participation in Military Exercises

1. During peacetime, NATO and Multi-National naval forces will carry out naval exercises to test their effectiveness in all manner of scenarios. The most common exercises that involve merchant shipping are Maritime Interdiction Operations (MIOs). Voluntary participation of merchant ships in these exercises is on a 'no-cost/no-delay' basis.
2. Exercise areas will be promulgated in advance by NAVWARN and additional information will be made widely available (ie by the NSC).

ANNEX 2A

The NATO Shipping Centre

- 1 Aim.** The aim of the NATO Shipping Centre (NSC) is to provide improved information exchange on merchant shipping, and facilitate increased voluntary co-operation between military commanders and commercial shipping operators.
- 2. Mission.** The NSC will collect and process merchant shipping information, develop a surface picture of shipping in areas of interest, support military operational requirements, and advise shipping on the evolving situation.
- 3. Capability.**
 - a. Permanently established, the NSC will provide information on merchant ships to Military Commanders, merchant shipping and the NCAGSORG, as required.
 - b. The NSC can support both NATO and multi-national worldwide operations.
 - c. The NSC is designated as NATO's point of contact for merchant shipping and institutions, such as NSAs, Ministries of Transport (MOT) and other maritime authorities.
- 4. Shipping Data.**
 - a. Information held by the NSC includes both fixed data (eg dimensions) and variable data (ie voyage details).
 - b. Any commercially sensitive data obtained by the NSC or by NCAGS will be appropriately protected.
- 5. Tasks.**
 - a. The NSC will:
 - (1) Collect and process merchant shipping data.
 - (2) Advise military and civil authorities of potential risks to merchant shipping.
 - (3) Identify possible interference with maritime operations and exercises.
 - (4) Maintain an Internet site containing information on security related matters.
 - b. On activation of NCAGS procedures the NSC will support the following tasks:
 - (1) Advise authorities and companies of risks. Identify possible interference with maritime operations and request their co-operation for the establishment of the shipping plot.
 - (2) Supply information on merchant shipping to MCs and civil authorities.
 - (3) Provide information and warnings to merchant ships.

(4) Provide advice on shipping operations.

6. **Website.** <http://shipping.manw.nato.int>.

ANNEX 2B

NCAGS Information Forms

SECTION I — FORMAT ALFA

1. Format Alfa is one of the principal methods by which NATO gathers data on shipping. Format Alfa may be requested at least 24 hours prior to entering the Area of Operations (AOO) and then, if possible, every six hours until departure from the AOO.
2. As a general rule Format Alfa should be kept as short as possible and be limited to essential information only. In normal circumstances data identified in the Format with **bold** type will suffice.
3. The form is divided into four sections:
 - a. Section A covers basic details of the vessel.
 - b. Section B covers details of the current voyage.
 - c. Section C covers details of the vessel's operator.
 - d. Section D covers cargo data.
4. Dates and Times should be entered either by the date followed by a four digit time in the 24 hour clock (18 Oct 05 2100 UTC) or a Date Time Group (see Para 5).
5. The NATO method of expressing time and date is contained within a Date Time Group (DTG) which is written in the following manner: DDHHHHTIME ZONE MMM YY. Therefore, a DTG written as 182100Z JUL 06 describes a time of 2100 Universal Time Coordinated (UTC) on the 18 July 2006. NATO units routinely describe UTC as time zone 'ZULU' abbreviated to 'Z'.
6. Format to be used:

Section A — Ship Data:

- (1) **Ship's name.**
- (2) **International callsign.**
- (3) Type of vessel.
- (4) **Flag of registry.**
- (5) **IMO number.**
- (6) Port of registry.
- (7) Length overall.
- (8) Vessel's width.

- (9) **Maximum draft for present voyage.**
- (10) Vessel's gross tonnage.
- (11) **Speed:**
 - (a) **Service speed.**
 - (b) **Maximum speed.**
 - (c) **Minimum speed.**
- (12) **Significant appearance of vessel for optical recognition.**
- (13) **MMSI (Maritime Mobile Services Identity) Number.**
- (14) Name of communication station being copied.
- (15) **INMARSAT Telephone numbers.**
- (16) **INMARSAT Fax numbers.**
- (17) INMARSAT Telex numbers.
- (18) INMARSAT Data numbers.
- (19) Other communication means including e-mail addresses.

Section B — Voyage Data:

- (20) Intended movement — description of passage.
- (21) Last port/country of call including actual date and time of departure from last port.
- (22) Next port of call including Estimated Time of Arrival (ETA) at next port of call.
- (23) **Current position.**
- (24) **Date/time and position entering the region.**
 - (a-x) **Waypoints of intended track through AOI (date/time—latitudes/longitudes).**
- (25) **Position and date/time of departing the region.**

Section C — Operator Data:

- (26) **Name of ship owner/operator including address of ship owner, name of Charterer (if any) and address of Operator/Charterer.**
- (27) Email address of the above.
- (28) Telephone number of above.

(29) Fax number of above.

Section D — Cargo Data

(30) Quantity and nature of main/relevant cargo.

(31) Shippers of main/relevant cargo (name and address).

(32) Origin of main/relevant cargo.

(33) Consignee of main/relevant cargo.

(34) Final destination of main/relevant cargo.

(35) Special queries appropriate to current operation such as “State if any cargo/person is carried being subject to UN sanctions, by **YES** or **NO**”. If the answer to the query is YES, then describe on a separate sheet.

SECTION II — SAILING INSTRUCTIONS

1. Sailing Instructions (SI) are issued to all ships transiting a SRA and any other ships requiring specific guidance within the AOO. The issue of a SI indicates that a mutual understanding has been achieved. The Master has agreed to follow the routeing direction and the NCAGSORG will monitor the ship's passage and divert if necessary. The SI is an important tool for the MC in mitigating risk to commercial shipping transiting the SRA and diversion can be signalled to a merchant vessel in transit if a danger develops on the planned track.

2. The following outline is provided as guidance to illustrate the content for the Sailing Instructions used in NCAGS.

SAILING INSTRUCTIONS**SHIP'S NAME:****INTERNATIONAL CALLSIGN:****FLAG:****SPEED:****ENTRY POINT:****EXIT POINT:****FINAL DESTINATION:**

Note: Entry and exit points define the part of the voyage where Sailing Instructions (SI) apply.

GENERAL SITUATION:**ROUTE:**

During the passage you should pass through the following positions:

POSITION DESIGNATOR/WAYPOINT	LAT/LONG	REMARKS
1.		
2.		
3.		
etc		

SPECIAL INSTRUCTIONS:

COMMUNICATIONS

EMCON

REPORT SUSPICIOUS SIGHTINGS

NOTIFICATION OF DIVERSIONS

SUMMARY OF NAVWARNS IN FORCE

ANNEX 2C

Routeing/Passage Plans and Amendments

- 1. Responsibility for Establishing Routes/Passage Plans.** The MC is responsible for establishing and maintaining a system of routes required for an operation.
- 2. Routeing Authority.** Routeing Authority resides with the NCAGS CDR who can delegate this responsibility to a subordinate.
- 3. Promulgation of Routes.** In normal circumstances the promulgation of routes would be restricted, therefore the Routeing Authority is responsible for seeing that all who are concerned with the operation of a particular route hold the necessary information before the route is activated.
- 4. Issuing Routeing Instructions to Merchant Ships.**
 - a. General.** Routeing instructions to ships always take the form of a list of latitudes and longitudes of the route positions, together with their Two-Letter Designators.
 - b. Issuing Sailing Instructions.** When a SRA is established and routing is advised, Sailing Instructions (SI) will be issued to the Master by the Routeing Authority in the format described in Annex 2B.
- 5. Diversions.** A diversion may be signalled to a merchant vessel in transit when a danger develops on the planned track. The procedures for diversions are contained in Annex 3A.
- 6. Routeing Liabilities.** Advice and routes may be given to Masters, however, it should be noted that the Allied or Coalition Governments accept no liability.

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CHAPTER 3

Communications

0301 Purpose

This chapter provides instruction for communications between merchant ships and military forces.

0302 Scope

Merchant vessels will normally communicate with military forces using standard peacetime methods. In some situations, restrictions on electronic emissions may be required when approaching or when transiting an AOO (see Para 0403). Instructions for use of non-standard communications methods will be provided as necessary.

0303 Military Points of Contact

1. NATO Shipping Centre (NSC). In military operations, every effort is made by the commanders to provide a free link to either the NATO Shipping Centre (NSC), or a national equivalent. The NSC website provides information on NSC services and up-to-date information on national, multi-national and NATO operations and exercises. Useful documents and links to related sites can also be found there (see Annex 2A).

2. Local NCAGS Elements. Contact information for NCAGS elements will be distributed by NSAs, the NSC, an NCAGS Briefing Officer, NAVTEX, local shipping warning such as MARLO Advisory notices, etc.

3. Naval Units. Naval vessels or military aircraft may hail merchant vessels transiting an AOO in order to verify identity and intentions. Reporting instructions and contact information will generally be provided to merchant vessels prior to their transit of the AOO. Naval units can normally be contacted by calling standard IMM VHF frequencies.

0304 Communications Reporting Gate (CRG)

1. A CRG is established to provide a position/line for merchant ships to call the NCAGSORG in order to establish initial contact or to update previous information held.

2. Ships will be notified of CRG details for the AOO and reporting requirements will be promulgated to merchant ships through a variety of means such as the NSC, NSAs, Advisory Notices or NAVWARNS. Instructions will normally contain details of the information required, the occasions for reporting and to whom the report is to be sent. Ships will be asked to forward a Format Alfa (see Annex 2B) before arriving at the CRG.

0305 Messages to Merchant Ships

Types of messages passed to or from merchant ships are described at Annex 3A.

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ANNEX 3A

Message Types

1. Signalled Messages. The following message types are designed to show the information that is required, and the sequence in which such information is to be placed in each type of message.

2. Diversion Message. A message signalling a diversion from the planned track. Any diversions after sailing must make clear the entire route to be followed to the immediate destination. The DIVERSION MESSAGE will give a new position, or positions, through which the ship is requested to pass. The first words of the text will be the identifier 'DIVERSION MESSAGE' followed by:

- a. The reason for diversion.
- b. The position or time at which the diversion is to take place.
- c. New positions through which ships are to pass.
- d. The immediate destination and amended ETA.

3. Passage Amendment. This message is sent by a ship to report passage amendments involving changes in destination or differences of greater than six hours variance from the original passage plan intentions reported by Format Alfa. The message will be addressed to the original addressees of the Format Alfa. The first words of the text will be the identifier 'FORMAT ALFA PASSAGE AMENDMENT' followed by:

- a. The international callsign, IMO number and name of the ship.
- b. Position at Time.
- c. Great circle or rhumb line track and speed.
- d. Name of next port of call.
- e. ETA at next port of call.

4. Nuclear Biological and Chemical (NBC) Warnings to Merchant Ships

a. Warning and Reporting. The process by which reports of NBC attacks are forwarded through the military chain of command and units are warned of the resulting hazards. The process is coordinated by a hierarchical structure of NBC centres.

b. The MERWARN Message System (MERWARN). A simplified system for broadcasting warnings of NBC hazards and events that might endanger merchant shipping at sea. These warnings will originate from naval authorities using the appropriate Navigation Warning of the World Wide Navigation Warning Service. MERWARN messages will be originated by NATO naval authorities.

c. Method of Promulgation. All messages will be transmitted in plain language, using UTC, preceded by the International Safety Signal (Sécurité) from the World Wide Navigation Service. Thus masters need not concern themselves with the identity of the MERWARN originators, but only with the sea areas covered by each message.

CHAPTER 4

Procedural Guidance For Ships At Sea

0401 General Responsibilities of the Master

1. The Master is at all times responsible for the safe navigation and handling of his ship. Advice and instructions issued by a naval authority, including a NCAGS LO, do not in any way relieve the Master of these responsibilities.
2. Crisis Response Shipping will usually be sourced by commercial charter and Masters of such vessels should be fully aware of their Charter Party. It may contain specific terms relevant to the use of the ship in a military environment.
3. It is the Master's responsibility to ensure that all appropriate crew members are fully acquainted with the instructions necessary for the efficient performance of any communication duties including adherence to the Emission Control (EMCON) policy (see Para 0403 below).

0402 Sensitive Documents and Equipment

1. On occasion, when a merchant ship is working with military forces, classified material may be carried on board. Such sensitive material is usually in the custody of the embarked NCAGS LO and requires special handling and precautions.
2. Although Sailing Instructions or other documents issued to the Master may be unclassified, due to the potentially sensitive nature of their contents, the information should only be made available to the crew on a need-to-know basis. On completion of a voyage, if not collected by NCAGS personnel, the Master should destroy these documents.

0403 Emission Control (EMCON) Policy and Plans

1. In times of tension, or when working with military forces, it may be necessary to restrict, or cease, the normal usage of ships transmitters, navigational equipment and other communication systems.
2. The EMCON policy depends on local threat assessment and may affect the passage in certain circumstances. Military authorities, if required will issue formal advice and guidance. This will be of primary importance when under escort, taking part in lead-through of mined areas, or as part of accompaniment.
3. EMCON is the selective control of emitted electromagnetic or acoustic energy. The EMCON policy in force has two aims:
 - a. To minimise the enemy's detection of emissions and exploitation of the information so gained.
 - b. To reduce electromagnetic interference thereby improving friendly sensor performance
4. The MC will produce an EMCON plan, which governs all electronic emitters onboard. Electronic emissions, including AIS emissions and emissions for testing and tuning, can be restricted. Parts of this plan may affect the ship's passage and adherence will be required.

0404 Helicopter Transfers

1. Conduct of Helicopter transfers. Helicopter transfer might be used to pass personnel or material. The Master must ensure that the correct preparations for helicopter transfers are made and must give his approval before the transfer operation commences.

2. On-deck preparation.

a. Fully brief the deck team on safety and intentions. The designated Flight Deck Officer is in charge of all Flight Deck/winch area operations relating to the ship.

b. Loose articles can potentially be swept into helicopter intakes, which can cause serious accidents. Stow away all loose equipment, garbage containers, paper, rags, etc. in order to avoid damage to the aircraft or injury to personnel.

c. Obstructions such as aerials, awnings and stanchions should be lowered to ensure a clear transfer area. Guardrails are usually best left in place for safety of personnel.

d. Provide fire-fighting equipment, including foam, dry powder and hoses rigged on deck if possible. However, the equipment should not be directly below the helicopter where it might hinder the transfer. A fire fighting team in protective fire suits should be mustered with charged hoses.

e. Personnel on deck should be kept to a minimum, and those actually conducting the transfer provided with rubber gloves, life jackets and high visibility clothing. During personnel transfer, the transfer gear should be allowed to ground on deck prior to handling. With the exception of well-secured protective headgear, no hats or caps should be worn in the vicinity of the helicopter transfer.

f. The turbulence from a helicopter rotor down wash can cause involuntary movement of heavy equipment and personnel. Ensure that all equipment in the immediate vicinity of the transfer is properly secured. Brief personnel involved on the effect of rotor down wash.

g. All crew should be made aware of helicopter operations and that no garbage is to be thrown over board. Unauthorised personnel are to be kept clear of the area.

h. The helicopter winch wire/hook carries a static charge and should only be touched by personnel wearing rubber gloves. The winch wire must not be allowed to snag on guardrails or other obstacles, and on no account must it be secured to any part of the ship. A helicopter in flight can build up a considerable charge of static electricity, particularly in dry cold climates. Personnel touching an aircraft load before it is earthed can experience a severe electrical shock resulting in minor injuries. Charges in the region of 250,000 volts have been measured. A lapse of ground contact of two or three seconds is sufficient to allow a further build up of static charge.

3. Ship Preparation.

a. Communicate with the helicopter on the frequency requested if interoperable equipment is available.

b. Steer a course that will give a relative wind of 20 degrees/30 degrees on the port bow. This will allow for a helicopter transfer on the after part of the ship.

- c. If it is not possible to keep the relative wind on the port bow, maintain a steady course and speed as safe navigation permits. The helicopter pilot will hover by the part of the ship he considers most suitable for transfer, and immediate preparations should be made on deck in the vicinity as previously described.

Note: Further advice on helicopter operations is to be found in the UK Admiralty Notice to Mariners No. 4 or US Coastguard Bulletin No. 3, published annually; and in the International Chamber of Shipping's Guide to Helicopter/Ship Operations.

0405 Heaving Line/Gun line Transfer

1. Transfer of small items may be requested when underway at sea by means of a heaving line or gun line. When requested to carry out such a transfer, the warship will tell the merchant ship which side the transfer will take place and give full instructions of the actions expected of the merchant ship for which the Master must give his approval. The warship will take station on the merchant ship, which must maintain a steady course and speed as directed. The merchant ship must prepare as follows:

a. Ship Preparation.

- (1) Indicate the point of transfer by a red flag (on a stave).
- (2) Close all scuttles/windows on the side of the transfer.
- (3) Clear all personnel not engaged in the transfer from the transfer point and its vicinity.
- (4) Ensure that the hands engaged in the transfer can take cover if and when a gun line is used.
- (5) Personnel at the receiving position should wear lifejackets, high visibility clothing and protective headgear.

b. Steering. Careful attention must be paid to steering the correct course at the speed requested during the whole of the approach, transfer and break off procedure.

c. Warning Signals

- (1) When a gun line is used, the firing ship will sound:
 - One whistle blast - Exposed personnel take cover.
 - Two whistle blasts - Immediately before firing the line.
 - Three whistle blasts - Safe to break cover and take up the line.
- (2) When an Emergency Breakaway is required:
 - Six short blasts of ships whistle will be sounded – when it is necessary to cease operations immediately.

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CHAPTER 5

Protective Measures Against Threats To Merchant Ships

0501 Introduction

1. The aim of this chapter is to identify various types of threat, to give general advice on how to avoid a threat and to outline protective measures and ways to counter the consequences of an attack. Detailed information on specific threats may be provided by the military.

2. There are minimal defensive measures available to merchant ships, which are normally unarmed, have a small crew and are restricted by civilian regulations. Situational awareness is necessary if a Master is to counter or avoid a threat, or mitigate the consequences. This includes knowledge of the threat and of the presence of friendly forces or authorities that can be contacted to provide support. It also includes knowledge of individual preparations that can be implemented prior to entering a threat area.

0502 Situational Awareness

1. Some aspects about the merchant ship's own situation to be considered are:

a. The Threat. Merchant ships may be sailing through areas threatened by piracy, terrorism or military conflict. The threat may comprise both regular military forces and para-military forces such as guerrillas or terrorists. These para-military military forces tend to use a variety of weapons and methods of delivery and usually attack without warning.

b. Protection. Merchant ships may be sailing through areas where protection is provided either through a general naval presence, through accompaniment or escort of individual ships or groups of ships, or they may be transiting areas where no protection is available. Depending on the political situation and military rules of engagement in effect, naval forces may be able to assist and protect merchant vessels under attack.

0503 Threat Warnings

1. If transiting through an area where military forces are operating, the MC may issue Threat Warnings to indicate to merchant ships the likelihood of an enemy attack. These warnings are written in plain language and may use a colour code as described below:

WARNING WHITE	Attack is unlikely without adequate warning. Normal peacetime steaming. Safety of navigation posture.
WARNING YELLOW	Attack is probable.
WARNING RED	Attack is imminent or has already commenced.

These colour codes may be preceded by one of the following words to indicate the type of threat:

AIR
MINES
NBC (Nuclear, Biological, Chemical)
SURFACE
SUBMARINES

2. General Threat Countermeasures. At times of increased threat warning levels there are a number of precautions that can be undertaken to help reduce the possibility of attack and/or reduce damage levels (see Annex 5A).

0504 General Threat Considerations

1. Identification. The threat will depend on the attackers' ability to detect and identify a target. Also the weapon range and the range/endurance of the weapon carrying platform will decide how far to sea an attack is likely to be achieved. In some situations, however, one has to assume that attacks can be carried out indiscriminately. As a general rule threats are more likely to occur in choke points (straits, fjords, off capes) where less sophisticated weapons are likely to be employed.

2. Weather and Sea State. Reduced visibility may hamper the attackers ability to detect and identify a target. Some weapons and sensors will have reduced effect in poor visibility, for instance laser guided weapons and infra-red weapons and sensors. Smaller vessels may be hampered in high sea states. High sea states and humidity may impair the use of sensors and weapons.

3. The Use of Active Electronic and Acoustic Equipment. The use of active electronic and acoustic equipment such as radio, mobile telephones, satellite communication systems, radars, Automatic Identification Systems (AIS), echo sounders and doppler logs may be important sources of information to an attacker. These devices and systems can compromise a vessel's position and identity. The use of active electronic and acoustic equipment should be minimised in a threat environment (see Para 0403).

0505 Types of Threat

1. The types of threat that may be encountered include:
 - a. The Air and Surface Threat (see Annex 5B).
 - b. The Submarine Threat (see Annex 5C).
 - c. Underwater Sabotage at Anchorages (see Annex 5D).
 - d. The Mine Threat (see Annex 5E).
 - e. The Threat from Nuclear Weapons (see Annex 5F).
 - f. The Threat from Chemical Weapons (see Annex 5G).
 - g. The Threat from Biological Weapons (see Annex 5H).

0506 Protective Measures

1. The variety of merchant ships and threats make it impossible to make an exhaustive list of protective measures, tailored to a specific ship or situation. Some commercial companies specialise in training of crews and tailoring of defensive measures. National and international organisations like the IMO provide guidance and regulations with regard to general safety aspects. These companies and organisations may be consulted to optimise preparations prior to entering a threat area.

2. The IMO International Ship and Port Facility Security (ISPS) Code has been developed to counter peacetime threats. Fulfilling the requirements put forward in this code should prepare merchant ships and ports to deal with peacetime threats, including the threat from terrorism.

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ANNEX 5A

Recommended Protective Measures

Warning Yellow:

- a. Increase watertight integrity posture. Essential watertight hatches and doors and outside hatches and portholes should be kept closed and secured.....
- b. Wear clothing made of fire retardant or non-man made fibre.....
- c. Post extra lookouts. Ensure lookouts properly briefed.....
- d. Implement darken ship routine.....
- e. Treat unidentified vessels and small craft with caution.....
- f. Attempt to establish the identity of any approaching vessel, and carry out evasive manoeuvres if this cannot be done.....
- g. Limit the use of electronic equipment to essential transmissions and safety of navigation.....
- h. Be prepared to issue emergency reports.....

Warning Red add:

- i. Ensure fire pumps running, hoses are connected and ready to use.....
- j. Have life jackets immediately available; wear life jackets where practicable.....

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ANNEX 5B

The Air and Surface Threat

1. The Threat

a. An air threat may consist of aircraft or helicopter carrying bombs, rockets, machine guns, biological/chemical agents or missiles. In addition, aircraft may be used for surveillance and reconnaissance to support other units in conducting attacks. Terrorists could use aircraft for suicide attacks. Without information provided by military forces, merchant ships will get little or no warning of an emerging air threat or attack.

b. The surface threat in military conflict may consist of naval surface vessels such as destroyers, frigates, corvettes or (fast) patrol boats. In areas where the surface threat stems from terrorism, piracy or non-regular forces, there may be a threat from smaller vessels like fishing vessels, tugs, speedboats and even personal water craft (jet-skis). In such areas, any unidentified craft approaching the ship may be a potential threat. Terrorists, pirates and other non-regular forces may use short range, hand-held weapons. Any type of vessel may be used for suicide attacks. The surface threat from pirates, terrorists and non-regular forces will normally diminish with the distance from the coast.

c. Merchant ships may be harassed by ships using close approaches, use of searchlights against the bridge and non-compliant boardings.

d. Missiles may be launched from distances measured from miles to hundreds of miles. The missile has the performance characteristics of a small, very fast aircraft; it may use its own radar to home in on a ship, or it may home in on the ship's own radio/radar transmitters or infra-red emissions (eg heat from funnels), or use information from a third party (for example a surveillance aircraft).

e. The launch of a missile may be detected through a visible flash and smoke. Missiles will normally hit above the waterline. The main hazard is likely to come from fire, caused either by the warhead explosion or by the unspent fuel from the missile motor.

2. Self Protective Measures

a. Watch for evidence that the ship is under surveillance. Visual lookout should be all-round and continuous.

b. Increase speed.

c. Reduce the number of crew on the weather decks, in positions near the weather decks, or in machinery spaces, to the bare minimum required for safe steaming. Move all the remaining personnel to a sheltered position above the waterline with short access to the upper deck.

d. If under **missile** threat:

(1) Reduce the heat signature by cooling down the funnel.

(2) Turn off all radars.

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ANNEX 5C

The Submarine Threat

1. The Threat

- a. Submerged submarines are very difficult to detect with other than specially designed sensors, and an attack will occur without any warning. Submarines have the ability to detect merchant ships noise at long range, and to identify ships based on propeller revolutions, engine noise, and noise generated by other equipment such as auxiliary engines, pumps, etc. They may also be able to locate and identify merchant ships by their radar, echo sounder or their visual appearance.
- b. The main weapon systems are most likely sophisticated torpedoes and/or missiles. Less sophisticated submarines may be equipped with straight running torpedoes, which may be easier to evade.
- c. Missiles may be launched from distances measured from miles to hundreds of miles. The missile has the performance characteristics of a small, very fast aircraft; it may use its own radar to home in on a ship, or it may home in on the ship's own radio/radar transmitters or infra-red emissions (eg heat from funnels), or use information from a third party (for example a surveillance aircraft).
- d. The launch of a missile may be detected through a visible flash and smoke. Missiles will normally hit above the waterline. The main hazard is likely to come from fire, caused either by the warhead explosion or by the unspent fuel from the missile motor.

2. Self Protective Measures

- a. Avoid, whenever possible, areas where submarines are likely to operate.
- b. If navigating within an area where submarines operate, alter course 30 degrees minimum every two to three hours.
- c. If the position of a submarine is indicated, a merchant ship should proceed at full speed away from the submarine and making short 15-degree minimum course alterations every 8-15 minutes.
- d. Increase transiting speed.
- e. If under **torpedo** threat:
 - (1) Reduce the number of people below decks.
- f. If under **missile** threat:
 - (1) Reduce the heat signature by cooling down the funnel.
 - (2) Turn off all radars.

- (3) Reduce the number of crew on the weather decks, in positions near the weather decks, or in machinery spaces, to the bare minimum required for safe steaming. Move all the remaining personnel to a sheltered position above the waterline with short access to the upper deck.
- (4) All personnel should move away from the threat direction, keeping away from windows.
- (5) Presenting the least vulnerable part of the ship to the attack might limit subsequent damage.

ANNEX 5D

Underwater Sabotage at Anchorages

1. The Threat

- a. A merchant ship at anchor can be subject to various potential threats, both in peacetime and in conflict, varying from acts of terrorism to acts of war. Merchant ships may be the direct target of saboteurs and special forces aiming to sink the ship.
- b. Fulfilling the requirements of the ISPS Code should help merchant ships to counter peacetime threats, including the threat from terrorism.

2. Self Protective Measures

- a. Post extra lookouts on the upper deck. Ensure lookouts are properly briefed.
- b. Deploy own ship's waterborne security patrol.
- c. If possible, rotate the propeller, continuously or at short irregular intervals, as circumstances permit.
- d. Operate bow thrusters and stern thrusters at zero (0) thrust.
- e. Turn the rudder frequently.
- f. Echo sounder to transmit to counter/combat swimmer/diver threat.

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ANNEX 5E

The Mine Threat

1. The Threat

a. Sea mines remain the most likely and dangerous weapon to be used against shipping in every potential conflict. As a weapon, they are relatively cheap and easy to lay by both military and civilian assets (ie aircraft, fishing vessels, etc). Nowadays sea mines vary from very simple contact mines to sophisticated ones, using high technology to detect and identify potential targets. Sea mines can be laid on the bottom, anchored at a given depth or floating.

b. Sea mines can normally be expected in waters 200 metres or less in depth. In most cases routes will be designated in an area where mines are suspected, and will be subject to clearing operations by mine countermeasures (MCM) forces.

2. Self Protective Measures

a. If possible, avoid waters with less than 200 metres water depth.

b. If possible, sail at high water in order to increase the distance between hull and mine.

c. If possible, take advantage of favourable currents or tidal streams, which will reduce the time spent in the area of danger without the need to increase speed, or alter other ship-made influences.

d. Keep the lowest steering speed, in areas where a mine threat might exist, especially in waters of less than 60 metres.

e. Do not throw anything overboard. Many objects that float may be mistaken by lookouts for floating mines.

f. Watch should be kept for any unusual or suspicious activity, such as the releasing of objects into the sea that might indicate mining activity. Aircraft may release mines with or without parachutes.

g. If a mine clearance operation is in progress in a particular area, merchant ships may be guided through the area by naval forces. Before arrival in the area, information on the rendezvous and procedures for such a routing will be provided by the NCAGSORG.

h. Reduce the number of personnel remaining below the main deck, or in compartments below the waterline, to the absolute minimum.

i. Follow directly over the same ground as the ship ahead.

j. Minimise ship's acoustic signature by securing non-essential machinery. Avoid all unnecessary alterations of course, engines reversing or extreme changes of revolutions.

k. If a mine is sighted:

- (1) Evacuate all personnel from compartments below the main deck and from below the waterline.
- (2) Order all personnel to put on safety helmets (hard hats) and life jackets.
- (3) Order all personnel who can do so to lie down in their bunks.
- (4) Order all personnel on watch and personnel not lying down to “*brace for shock*”.

ANNEX 5F

The Threat from Nuclear Weapons

1. The Threat

- a. Any weapon designed to deliver a conventional explosive could be used to deliver a nuclear explosive.
- b. Characteristics. In case of a nuclear explosion, ships and personnel may be exposed to the flash, thermal radiation, initial nuclear radiation and contamination in the form of fallout.

2. Self Protective Measures

Ships and personnel can be protected to an appreciable extent against the hazards of nuclear attack by material measures, protective clothing and good organisation. If a ship has a pre-arranged countermeasures plan, ensure that all measures laid down in that plan are carried out. If no such plan is in existence, consider adapting ships procedures to include the following measures:

- a. Ships should be manoeuvred to avoid contamination or to exit the contamination area as soon as possible.
- b. A group, or groups, of compartments should be selected for the crew to take shelter. The spaces should be as low down in the ship and as far removed from the ship's side as possible. These spaces should be equipped with washing and lavatory facilities and sufficient food to last for the passage through the danger area. Spaces selected should be capable of being completely shut down with all ventilation and other openings secured.
- c. Stow below or cover as much gear on the weather decks as possible, particularly absorbent materials such as rope, awnings, etc. Ensure that food stores and galleys are closed down with all openings closed. Stop all ventilation fans and close or cover all ventilation and other openings that are not essential for running machinery and continued steaming. In the absence of suitable closures, the use of adhesive tape, etc is recommended.
- d. Consider having the crew don immersion suits or fire fighting gear. The gear is to be used to minimise skin exposure. Breathing apparatus can be used to help prevent airborne agents from being inhaled.
- e. Rig and activate all available fire fighting/wash-deck hoses and nozzles to spray water continuously over as much of the weather decks and superstructure as possible, to prevent contamination settling. If complete coverage is impossible, concentrate effort on the wheel house/bridge, over the top of the shelter position(s) and above the machinery spaces.
- f. If continual spraying of the upper decks is impracticable, organise working parties to wash down the weather decks and superstructure. In the event of a nuclear incident, this should be done at frequent intervals to reduce the build-up of contamination.
- g. As soon as possible after clearing the dangerous area, carry out a thorough hosing down of the entire weather decks and superstructure.
- h. Minimise the number of crew who must remain on the weather decks, in positions near the weather decks, or in machinery spaces, to the bare minimum required for safe steaming. Keep the remainder of the crew in the selected shelter position(s).

- i. Ensure that all personnel remaining in exposed positions (including machinery spaces, unless ventilation can be stopped), are fully clothed, preferably in foul weather clothing with all skin covered as far as practicable. Masks with breathing apparatus should be available and donned if threat is imminent.
- j. Restrict unnecessary movement throughout the ship, to minimise the possible spread of contamination.
- k. Unless essential, do not distil water for drinking whilst in the danger area.

3. Additional Protective Measures in The Event of a Nuclear Attack

The following additional actions to that listed above should be considered specifically in the event of a nuclear attack.

- a. Light flash and thermal radiation from nuclear attack can be countered by such measures as protective clothing, shielding the eyes, and shelter behind superstructures. Initial nuclear radiation can only be reduced by substantial shielding.
- b. Move personnel in exposed or relatively unsheltered positions (including machinery spaces) as often as possible, in order to minimise the radiation dosage. Take as much shelter as the safe navigation of the ship will permit.
- c. Ensure that all exposed personnel remove their outer clothing on returning to shelter, and wash their exposed skin thoroughly, especially the hands, face and neck, as soon as possible, and in any case before drinking or eating.
- d. The effects of nuclear fallout can be reduced by pre-wetting exposed surfaces, closing down air intakes and machinery spaces temporarily, sheltering the crew below decks and decontamination. The presence of fallout, and a rough indication of intensity, can be monitored using simple radiation detecting instruments, if available.

ANNEX 5G

The Threat from Chemical Weapons

1. The Threat

Chemical compounds are available with such versatile properties that, in addition to being able to kill, they may be used to incapacitate and to do so for varying lengths of time. Moreover, these effects can be achieved without material damage or destruction. The use of chemical agents is directed primarily against humans or food supplies.

a. Method of Attack. The probability of a chemical attack at sea is low but the possibility must not be discounted; any weapon designed to deliver a conventional explosive or nuclear load could also be used to deliver a chemical agent. Obviously, an attack on a ship at sea requires great accuracy to be effective. The following delivery methods are possible:

- (1) Air burst bombs or missiles to envelop the target in aerosol spray or droplets.
- (2) Aerosol or droplets sprayed from an aircraft or cruise missile.
- (3) Chemical filled shell or missile.

b. Types and Characteristics of Chemical Agents. Chemical agents may be liquids, aerosols, vapours or solids and can produce a very rapid reaction if inhaled, absorbed or swallowed in any form. In liquid or aerosol states they may penetrate clothing and skin, even though the droplets may be so small that they cannot be seen or felt upon the body. The most likely groups to be used are:

- (1) Nerve agents.
- (2) Incapacitating agents.
- (3) Blister agents.

c. Nerve Agents.

(1) The most dangerous of the known lethal chemical agents comprise the nerve group. These act on the body through the nervous system. The agents are liquids emitting a toxic vapour that can be inhaled, absorbed through the skin or swallowed with contaminated food or water. Contaminated areas remain dangerous for a period which varies according to the concentration, weather conditions and the type of structure on which the agent has landed. It is most dangerous in confined, unventilated spaces.

(2) Symptoms of nerve agent poisoning are any one or more of the following:

- a. Blurring of vision - difficulty in focusing.
- b. Excessive salivation.
- c. Sudden headache.
- d. Tightness of the chest.
- e. Pinpointing of pupils of the eyes.

(3) Later, unless preventative measures are taken quickly, convulsions and paralysis occur, followed by death. With large doses, death comes within minutes. A sub-lethal dose can reduce the body's resistance to a subsequent dose for days or even weeks.

d. Incapacitating Agents. These are non-lethal agents that produce physical and/or mental effects of sufficient severity to prevent personnel from carrying out their normal duties. The duration of effect can last from several minutes to several days. Recovery is usually complete and normally there are no after-effects. These agents can produce one or more of the following states: temporary paralysis, persistent lachrymation (excessive watering of eyes), diarrhoea, vomiting, convulsive spells or mental confusion.

e. Blister Agents

(1) The principal blister agent, known as 'mustard', gives off an invisible vapour having a slight but characteristic odour of garlic or onions.

(2) It may be delivered in the form of vapour or liquid and in either form can seriously damage the eyes, respiratory passages and skin if these are unprotected. It will penetrate normal clothing in a few minutes. Severe internal injury will result from the consumption of contaminated food or drink.

(3) Symptoms may first appear in the eyes, varying from mild irritation to intense pain. Penetration of the skin will result in inflammation with an itching or burning sensation. More severe penetration causes the formation of blisters which, when broken, leave a raw, painful surface, easily infected.

2. Self Protective Measures

As with defence against nuclear attack, individual ships and crew can be protected appreciably against chemical attack by material measures, protective clothing and good organisation (see Annex 5F Para 2).

ANNEX 5H

The Threat from Biological Weapons

1. The Threat

- a. Biological agents would normally be delivered by:
 - (1) **Airborne Methods.** Aircraft or missiles releasing an aerosol cloud or releasing the agent in canisters, bomblets, or rockets.
 - (2) **Ashore.** Aerosol generators or sprays.
 - (3) **At Sea.** Aerosol generators or sprays from ships, ship borne missiles, submarines, or floating mines. The resultant 'cloud' may be effective for considerable distances in a downwind direction.
- b. Biological agents lend themselves particularly to attack by sabotage.
- c. A biological agent is any organism that can be used to produce disease or death. For the purposes of war they may be classified in the following types:
 - (1) **Micro-Organisms.** Such as Microbes or Bacteria.
 - (2) **Toxins.** Poisonous substances of an organic origin such as Ricin.
 - (3) **Disease Vectors.** Animals or insects (flies, fleas, rats, birds, etc.) that transfer infective agents from one host to another.
 - (4) **Ests.** Living organisms that interfere with the health of other organisms
- d. An agent may enter the body by any of three routes - ingestion, injection, and inhalation (most lethal agents enter by inhalation).

2. Self Protective Measures

- a. As with defence against nuclear attack, individual ships and crew can be protected appreciably against biological attack by material measures, protective clothing and good organisation (see Annex 5F Para 2). Specific measures for biological contamination are:
 - (1) **In Food.** By cooking.
 - (2) **In Water.** By chlorination or boiling for several minutes.
 - (3) **In Wounds.** By careful attention to cleanliness/disinfection.
 - (4) **In Enclosed Spaces.** By constant attention to cleanliness.

(5) In Exposed Positions. By washing down (Meteorological conditions can influence dispersal, viability and virulence).

(6) By Personnel. By the strictest attention to personal hygiene.

b. Measures to be taken within ships are a matter for national authorities.

LIST OF ACRONYMS

A

AIS. Automatic Identification Systems.

AOO. Area of Operations.

B

BIO. Biological.

C

CEP. Civil Emergency Plans.

CHEM. Chemical.

COMSEC. Communication Security.

CRO. Crisis Response Operation.

CRG. Communications Reporting Gate.

CRS. Crisis Response Shipping.

D

DPC. Defence Planning Committee.

DTG. Date Time Group.

E

EMCON. Emission Control.

ETA. Estimated Time of Arrival.

G

GMDSS. Global Maritime Distress and Safety System.

I

IMO. International Maritime Organisation.

ISPS Code. International Ship and Port Facility Security.

IVC. Immediately Vital Cargo.

L

LO. Liaison Officer.

M

MCM. Mine Countermeasures.

MERCOMMS. Merchant Vessel Communications.

MERWARN. Warnings to Merchant Ships.

MIO. Maritime Interdiction Operation.

MOT. Ministry of Transport.

MPS. Maritime Pre-positioning Ship.

N

NAC. North Atlantic Council.

NATO. North Atlantic Treaty Organisation.

NAVWARN. Navigational Warning.

NBC. Nuclear, Biological and Chemical.

NCAGS. Naval Co-operation and Guidance for Shipping.

NCAGS CDR. NCAGS Commander.

NCAGS LO. Naval Co-operation and Guidance for Shipping Liaison Officer.

NCAGSORG. NCAGS Organisation.

NSA. National Shipping Authority/Administration.

NSC. NATO Shipping Centre.

NUC. Nuclear.

P

PBOS. Planning Board for Ocean Shipping.

PIM. Position and Intended Movement.

PfP. Partnership for Peace.

POF. Potential Opposing Forces.

S

SCP. Shipping Co-operation Point.

SI. Sailing Instructions.

SRA. Shipping Risk Area.

STUFT. Ships Taken Up From Trade.

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GLOSSARY

A

accompaniment. A voluntary arrangement in which merchant ships may be organised for passage through a specific area of increased risk in company with military assets. Details will be promulgated via navigational warnings. Accompaniment does not imply direct protection by military assets; however, the presence of military assets may act as a deterrent to any unlawful interference to merchant ships.

anti-terrorism. All defensive and preventive measures taken to reduce the vulnerability of forces, individuals and property to terrorism. Note: such measures include protective and deterrent measures aimed at preventing an attack or reducing its effect(s).

area of operation. An operational area defined by a joint commander for land or maritime forces to conduct military activities.

C

communication reporting gate. A geographical reference point or line at which merchant ships are to call the NCAGS organisation in order to establish initial contact, or to update previous information. The communication reporting gate allows the military commander timely information about merchant ships approaching the area of operation.

communications security material. All documents, devices or equipment (including crypto material) associated with the securing or authenticating of telecommunications.

convoy. A number of merchant ships or naval auxiliaries, or both, usually escorted by warships and/or aircraft, or a single merchant ship, or naval auxiliary under surface escort, assembled and organised for the purpose of passage together.

crisis response shipping. All shipping employed in support of allied military operations, including ships taken up from trade, chartered shipping and, when appropriate, national pre-positioned ships.

D

damage control. In naval usage, measures necessary aboard ship to preserve and re-establish water-tight integrity, stability, manoeuvrability and offensive power; to control list and trim; to effect rapid repairs of materiel; to limit the spread of, and provide adequate protection from, fire; to limit the spread of, remove the contamination by, and provide adequate protection from, toxic agents; and to provide for care of wounded personnel.

designated merchant ships. Merchant ships nominated as 'designated' by NATO nations through their National Shipping Authorities. These ships may have priority over other ships for higher level NCAGS activities and under Naval Supervision of Merchant Ships will comply with military orders. On request, the North Atlantic Council may allow non-NATO nations to nominate ships.

dispersal. In NCAGS, reduction of the concentration of shipping by re-berthing within a port area, or at working/holding anchorages in the vicinity.

E

emergency movement. The execution of Diversion, Port Evacuation, Area Evacuation and subsequent movements in order to preserve hulls and cargoes when attack in a port or area is imminent. The majority of these movements are based on national Civil Emergency Plans although military commanders can order any element if the risk assessment is considered to be high.

emission control. Selective control of emitted electromagnetic or acoustic energy. The aim may be twofold:

- a. To minimize the enemy's detection of emissions and exploitation of the information so gained.
- b. To reduce electromagnetic interference, thereby improving friendly sensor performance.

escort. A combatant unit(s) assigned to accompany and protect another force or convoy.

H

humanitarian operation. An operation specifically mounted to alleviate human suffering where responsible civil actors in an area are unable or unwilling to adequately support a population. It may precede, parallel, or complement the activity of specialised civil humanitarian organisations.

I

immediately vital cargo. A cargo already loaded which the consignee country regards as immediately vital for the prosecution of the war or for national survival, notwithstanding the risk to the ship. If the cargo is carried in a ship of another nation, then that nation must agree to the delivery of the cargo. The use of this term is limited to the period of implementation of the shipping movement policy.

L

lead-through. Designed to minimise the risk to merchant ships transiting mined areas, and to facilitate the liaison between these ships and the on-scene Mine Countermeasures Commander for safe navigation purposes. Details will be promulgated via navigational warnings. Naval co-operation and guidance for shipping can recommend and facilitate the organisation of lead-through operations for merchant ships.

M

merchant ship. A ship engaged in mercantile trade except river craft, estuarial craft, or craft which operate solely within harbour limits.

merchant ship communications system. A worldwide system of communications to and from merchant ships using the peacetime commercial organisation as a basis but under an operational control authority, with the ability to employ the broadcast mode to ships when the situation makes radio silence necessary. Also called 'mercomms' system'.

merchant shipping. The complete commercial maritime industry, including the fishing industry.

N

national shipping authority. The organisation within each allied government responsible in time of war for the direction of its own merchant shipping.

naval co-operation and guidance for shipping (NCAGS). The provision of NATO military co-operation, guidance, advice, assistance and supervision to merchant shipping to enhance the safety of participating merchant ships and to support military operations.

NCAGS area. A geographical area within which the NCAGS organisation conducts NCAGS activities. The objective of such an area is to maximise the co-operation between military commanders and merchant shipping.

NCAGS commander. The officer assigned to command NCAGS organisation. The NCAGS commander is typically also the commander of the naval force.

NCAGS liaison officer. An officer deployed aboard a merchant ship to provide liaison between the merchant ship Master and military authorities. The NCAGS liaison officer is the naval advisor to the merchant master. His position on board does not affect the master's responsibilities for the safe navigation and safe handling of the ship. The NCAGS liaison officer makes military knowledge available to the master to allow the master to understand the naval and military requirements that are applicable.

NCAGS organisation. Supports two distinct entities, the merchant shipping community and the military commander. Therefore, it supports both military operations and enhances the safety of merchant ships, while keeping mutual interference to a minimum.

NCAGS unit. A team of naval co-operation and guidance for shipping personnel, deployed ashore or afloat, to provide specific local naval co-operation and guidance for shipping services including the gathering of local merchant shipping information, providing guidance to merchant ships and co-operating with and advising local merchant shipping.

naval supervision of merchant ships. The ultimate response of NCAGS guidance exercised by naval authorities of mandatory routeing, control of movement and/or convoy organisation. Naval supervision of merchant ships will be implemented only with North Atlantic Council/Defence Planning Committee approval.

NATO shipping centre. A permanent organisation in the NATO headquarters in Northwood (GBR) tasked with establishing and maintaining links with the military, merchant shipping, national shipping authorities and international maritime agencies.

P

participating merchant ships. Any merchant ships, including fishing vessels, which by the submission of the appropriate proforma, are participating in a NCAGS operation

S

sailing instruction. A document used by NCAGS to inform merchant vessels of general situation in the operation area, route to follow through the area and special instructions regarding communications, emission control, notification of diversion etc. May be delivered by Email, Fax or by hand by a Briefing Officer depending on situation and content.

security. The condition achieved when designated information, material, personnel, activities and installations are protected against espionage, sabotage, subversion and terrorism, as well as against loss or unauthorised disclosure.

shipping co-operation point (SCP). A location where NCAGS staff will gather information on local merchant shipping and naval operations and will provide the means to brief merchant shipping on risks, routing and organisation for protection. The SCP will, depending on the level of an operation, encompass co-ordination, co-operation or, when naval supervision of merchant ships is authorised, control. The location of shipping co-operation points will be at the discretion of the NCAGS commander and can be ashore or afloat. The SCP liaises with local and regional authorities including port authorities, shipping agents, and local shipping companies and reports ship movements to other elements of the NCAGS organisation.

shipping risk area. A geographic area of higher or specific risk to merchant ships. Guidance will be provided to participating merchant ships to help them understand the nature and extent of the risk in the area and, if applicable, to recommend specific routes through them.

T

terrorism. The unlawful use or threatened use of force or violence against individuals or property in an attempt to coerce or intimidate governments or societies to achieve political, religious or ideological objectives.

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