

# CHAPTER 1

## GENERAL COMMENTS AND REQUIREMENTS

### 1.1 General comments

This Code shall be applied as a complete set of comprehensive requirements. It contains requirements for the design and construction of high-speed craft engaged on international voyages, the equipment which shall be provided and the conditions for their operation and maintenance. The basic aim of the Code is to set levels of safety which are equivalent to those of conventional ships required by the International Convention for the Safety of Life at Sea, 1974, as amended, (SOLAS Convention) and the International Convention on Load Lines, 1966, (Load Line Convention) by the application of constructional and equipment standards in conjunction with strict operational controls.\*

\* Refer to MSC/Circ.652 on Application of the 1996 LL Convention to high-speed craft.

*Note that MSC/Circ.652 has been superseded by MSC/Circ.1028 – see below.*

#### **MSC/CIRC.1028 - APPLICATION OF THE INTERNATIONAL CONVENTION ON LOADLINES, 1966 & THE 1988 PROTOCOL RELATING THERETO, TO HIGH-SPEED CRAFT.**

- 1 *The Maritime Safety Committee, at its seventy-fifth session (15 to 24 May 2002), noted that as a result of the entry into force of the International Code of Safety for High-Speed Craft, 2000 (2000 HSC Code), on 1 July 2002, revised guidance on the application to high-speed craft of the International Convention on Load Lines, 1966 (1966 LL Convention) and of the 1988 Protocol relating thereto (1988 LL Protocol) were necessary.*
- 2 *The Committee recommended that Member Governments when applying the 1966 LL Convention or 1988 LL Protocol, depending to which instrument they are Party to:*
  - .1 *in the case of high-speed craft fully complying with the International Code of Safety for High-Speed Craft, 1994 (1994 HSC Code), accept the necessary relaxations from the conditions of assignment of freeboards or any other requirements of the 1966 LL Convention or of the 1988 LL Protocol;*
  - .2 *in the case of high-speed craft fully complying with the 2000 HSC Code, accept the provisions of the 2000 HSC Code as being an equivalent standard of protection to the provisions of the 1966 LL Convention or of the 1988 LL Protocol;*
  - .3 *follow the exemption procedure provided in articles 6(2) and 6(3) of the 1966 LL Convention; and*
  - .4 *issue to the high-speed craft concerned either an International Load Line Exemption Certificate, in accordance with the provisions of articles 6(2) and 16(3) of the 1966 LL or an International Load Line Exemption Certificate, in accordance with the provisions of the aforesaid articles as modified by the 1988 LL Protocol, as the case may be.*

3 The Committee further agreed that, when an Administration communicates to the Organization, in accordance with article 6(3) of the 1966 LL Convention, particulars and conditions of any such exemptions and reasons therefore, it would be sufficient to state that the high-speed craft concerned complies with either the 1994 HSC Code or the 2000 HSC Code, as the case may be.

4 This circular (1028) supersedes MSC/Circ.652.

HSC which comply with the requirements of the International Code of Safety for HSC 2000 which have been surveyed and certified as provided in the code shall be deemed to have complied with the requirements of the 1988 Protocol which came into force for ships the keel of which are laid or which are at a similar stage of construction on 1 January 2005. After this date the certificates and permits issued under the 2000 HSC Code shall have the same force and the same recognition as the certificate issued under the 1988 Protocol relating to the International Convention on Loadlines 1966. In this instance the wording of MSC Circ. 1028 is not applicable.

While high-speed craft cannot comply with the provisions of the International Conventions relating to passenger ships, if fully compliant with the High-Speed Craft Code, 2000 (2000 HSC Code) they are considered to demonstrate an ability to operate at an acceptable level of safety when engaged on a restricted voyage (route specific) under restricted operational weather conditions and with approved maintenance and supervision. This equivalence of safety is declared in Regulation 3 of Chapter X, as amended, of the SOLAS Convention.

Refer to the High Speed Craft Regulations 2004 (S.I. 2004 No. 302) as amended.

## EU DIRECTIVES

**Community Craft are subject to a number of EU Directives as set out below.**

### EU Community Craft

A "Community Craft" is a craft for which safety certificates are issued by or on behalf of EU Member States under international conventions, but does not include a Member State administration's issuing certificates for craft at the request of a third country's administration.

### **EU Directive on Safety Rules and Standards for Passenger Ships (98/18/EC), as amended.**

Refer to SI 2000 No.2687 as amended, *Merchant Shipping (Passenger Ships on Domestic Voyages) Regulations 2000* and associated MSN 1747(M), which implement this Directive.

New and existing passenger ships and high-speed passenger craft when engaged on domestic voyages shall comply with EU Directive 98/18/EC as amended, which requires in Article 6.4 that high-speed passenger craft constructed or subject to repairs, alterations or modifications of a major character, on or after 1st January 1996 shall comply with the 1994 HSC Code. This is now interpreted to mean that high-speed passenger craft constructed or subject to repairs, alterations or modifications of a major character on or after 1 January 1996 and before 1 July 2002 shall comply with SOLAS Chapter X in its up to date version (e.g. the 1994 HSC Code), and on or after 1st July 2002 shall comply with the 2000 HSC Code and on or after 1 July 2008 shall comply with the 2000 HSC Code as amended, as required by SOLAS chapter X.

In the context of this Directive passenger craft operating in sea areas of EC Classes B, C or D (defined in Article 4), are not considered to be high-speed craft if they:

- have a displacement at the design waterline of less than 500m<sup>3</sup>, and

- have a maximum speed as defined in 1.4.30 of the 2000 HSC Code of less than 20 knots.

Such craft therefore must instead comply with the safety requirements of Annex 1 to this Directive.

### **EU Directive on Safety Requirements for Persons with Reduced Mobility on Domestic Passenger Ships (2003/24/EC)**

Directive 2003/24/EC amends 98/18/EC on safety rules and standards for seagoing domestic passenger ships and requires appropriate measures to be taken for high speed craft used for public transport (see Regulation 7A of S.I. 2004 No. 302 *The Merchant Shipping (High Speed Craft) Regulations 2004*), based, where practicable on the 'Guidelines for Safety Requirements for Passenger Ships and High-Speed Passenger Craft for Persons of Reduced Mobility' which is Annex III to the Directive 2003/24/EC (see Article 2 (w) of the Directive for a definition of persons of reduced mobility). This Directive applies to all high speed passenger craft in operation on domestic seagoing routes, the keel of which is laid or which are at a similar stage of construction on or after 1 October 2004.

This Directive also applies to existing vessels upon modification, in respect of that modification so far as reasonable and practicable in economic terms. Directive 2003/24/EC applies after 1 October 2004.

Refer to *The Merchant Shipping (Passenger Ships on Domestic Voyages) (Amendment) (No. 2) Regulations 2004*, S.I. 2004 No.2883; *Designing and Operating Smaller Passenger Vessels: Guidance on Meeting the Needs of Persons with Reduced Mobility*, MGN 306 (M); and Directive 2003/24/EC – *Safety Requirements For Persons Of Reduced Mobility On Domestic Passenger Ships*, MSN 1789 (M).

*Vessels on International voyages should follow the IMO MSC/Circ.735 which is elaborated by the Disabled Persons Transport Advisory Committee (DPTAC) publication "The design of large passenger ships and passenger infrastructure: Guidance on meeting the needs of disabled people". This is available online at [www.dptac.gov.uk](http://www.dptac.gov.uk).*

*High speed craft on voyages in categorized waters should follow MGN 306(M).*

### **EU Directive on technical requirements for inland waterway vessels (2006/87/EC), as amended.**

The Inland Waterways Directive 2006/87/EC has currently not been transposed into UK Legislation. These vessels however will be able to operate in UK categorised waters either as UK Flagged vessels or flagged by another EU member state.

New and existing high-speed vessels operating solely on inland waterways in mainland Europe as defined in Directive 2006/87/EC should comply with that directive. SOLAS HSC should also be able to meet the criteria in Article 22b.02.1 but will need an Inland Waterways Certificate to satisfy authorities. Directive 2006/87/EC specifies vessels that should meet the provisions of Chapter 22b of the directive (on Specific Requirements Applicable to High-Speed Vessels) when it is a high-speed vessel: 'a motorised craft capable of reaching speeds over 40 km/h (approximately 22 knots) in relation to water'. There are general provisions which are applied to high-speed vessels in Ch. 22b that also may be affected by the general transitional provisions in Chapters 24 (Rhine) and 24a (Community waters) e.g. for instance see Ch. 24a.02 which is specific to 22b. High speed craft that come into inland waterways from sea are covered by their sea going certificates (see Article 2 of the Directive). From 30 December 2008 vessels that comply with this Directive are able to

operate in UK categorized waters either as UK Flagged vessels or flagged by another EU member state. Directive compliant UK vessels may operate in Community inland waterways and the Rhine.

New and existing passenger ships and high-speed passenger craft when engaged solely on inland waterways voyages on mainland Europe shall comply with the appropriate revision of CEVNI The European Code For Inland Waterways (Code Européen des Voies de la Navigation Intérieure).

*High speed vessels operating at less than 20 knots solely in UK categorised waters (see MSN 1776(M)) shall comply with either the Class IV or V Regulations as existing ships or as UK passenger ships operating solely within UK categorised waters. Any ships operating at 20 knots or above will be UK High Speed Craft in accordance with the appropriate revision of the High Speed Craft Code.*

*The MCA have drafted a code for passenger ships operating solely within UK categorised waters which has not as yet been made into an MSN or S.I. (these will be the Merchant Shipping (Passenger Ships)(Safety Code for UK Categorised Waters) Regulations. Part D of this code contains additional requirements for planing and semi-displacement passenger ships which are not high-speed craft. This area of this Code of Safety intends to cover the speed ranges where vessels are travelling at speeds less than 20 knots where a vessel is showing characteristics of non-conventional hulls.*

#### **EU Directive on Mandatory Surveys (1999/35/EC)**

Refer to SI 2001 No. 152, as amended, Merchant Shipping (Mandatory Surveys for Ro-Ro Ferry and High Speed Passenger Craft) Regulations 2001, and associated MGN 171(M), which implement EU Directive 1999/35/EC, which specifies a regime of mandatory surveys applicable to high-speed craft.

#### **EU Directive on Standards for Ship Inspection Organisations (94/57/EC, as amended)**

This Directive sets out common rules and standards for ship inspection and survey organisations and for the relevant activities of marine administrations. Appendix B to these guidance instructions lists the recognised organisations notified by Member States pursuant to this Directive.

#### **EU Directives on Port State Control (95/21/EC as amended)**

This Directive sets out measures for the enforcement, in respect of shipping using Community ports and sailing in waters under the jurisdiction of Member States, of international standards for ship safety, pollution prevention and shipboard living and working conditions (port State control).

#### **EU Directive on Marine Equipment (the M.E.D.) (96/98/EC as amended)**

This Directive is implemented by the Merchant Shipping (Marine Equipment) Regulations (S.I. 1999 No. 1957) as amended and associated MSN's (MSN 1734 (M+F) Type Approval of Marine Equipment (EC Notified Bodies) and MSN 1735 (M+F) Type Approval of Marine Equipment (UK Nominated Bodies)). The Merchant Shipping (Marine Equipment) Regulations apply to a high-speed craft operating on a scheduled service from any port in the United Kingdom to any port in another member State, or vice versa; or a voyage which is not an international voyage, to which The Merchant Shipping (High-Speed Craft) Regulations 2004 apply.

According to the Directive and the Regulation safety equipment when fitted to:

- (a) a new or existing (according to 96/98/EC) Community craft whether or not the craft is situated within the UK at the time of construction; or
- (b) an existing Community craft where such equipment was not previously carried on board; or
- (c) where equipment which was previously carried on board the craft is replaced, except where international conventions permit otherwise

is required to be tested and marked in accordance with EU Directive 96/98/EC on Marine Equipment, in its most up to date form.

See Appendix A for further details.

### **EU Directive on Electromagnetic Compatibility (2004/108/EC)**

Electrical and electronic equipment fitted to Community Craft that may either generate or be affected by electromagnetic disturbance shall meet the requirements of EC Directive 2004/108/EC, as amended. Equipment complying with this directive should have an EC mark or CE marking in accordance with EC Directives 2004/108/EC or 93/68/EEC (with Corrigendum), as amended.

## **1.2 General requirements**

1.2.1 The application of the provisions of this Code is subject to the following general requirements that:

*The Code of Safety for High Speed Craft (2000) entered into force internationally on 1st July 2002, and was amended in 2007. This version of the Instructions to Surveyors applies to all high-speed craft having their keel laid or being at a corresponding stage of construction on or after 1st July 2008. It shall apply in its entirety to HSC engaged on international voyages, and to HSC governed by EU Directive 98/18/EC, as amended.*

- .1 the Code will be applied in its entirety;
- .2 the management of the company operating the craft exercises strict control over its operation and maintenance by a quality-management system;\*

\* Refer to the International Safety Management (ISM) Code adopted by the Organization by resolution A.741(18), as may be amended.

*The ISM Code is implemented in the UK by S.I. 1998 No.1561 The Merchant Shipping (International Safety Management (ISM) Code) Regulations 1998 as amended and S.I. 1997 No.3022 The Merchant Shipping (ISM Code) (Ro-Ro Passenger Ferries) Regulations 1997.*

*The Domestic Safety Management Code referred to in MSN 1754 and S.I. 2001 No. 3209 is not considered appropriate to domestic HSC vessels due to the speeds travelled by HSC and the risk based methodology applied in the HSC Codes.*

*The philosophy of management and reduction of risk is complemented by detailed operating and maintenance instructions which are required to be carried on board and which must be agreed as part of the process for issuing the permit to operate.*

- .3 the management ensures that only persons qualified to operate the specific type of craft used on the intended route are employed;

- .4 the distances covered and the worst intended conditions in which high-speed craft operations are permitted will be restricted by the imposition of operational limits;
- .5 the craft will at all times be in reasonable proximity to a place of refuge, having due regard to the provisions of 1.3.4;
- .6 adequate communications facilities, weather forecasts and maintenance facilities are available within the area of craft operation;

*Refer to Chapter 13, 18 and Annex 2. In UK waters, the Met Office weather forecast (in particular, Significant Wave Height) or an approved and equivalent service that is recognised by the MCA should be used as the base line.*

- .7 in the intended area of operation suitable rescue facilities will be readily available;

*Refer to Annex 2.*

- .8 areas of high fire risk, such as machinery spaces and special category spaces, are protected with fire-resistant materials and fire-extinguishing systems to ensure, as far as is practicable, containment and rapid extinguishing of fire;
- .9 efficient facilities are provided for the rapid and safe evacuation of all persons into survival craft;
- .10 all passengers and crew are provided with seats; and

*Seats and settees on open decks, stools and other seats that do not comply with Annex 10 shall not be accepted as a seat accounted for in the total number of crew and passenger seats.*

- .11 no enclosed sleeping berths for passengers are provided.

1.2.2 On all craft, new installation of materials containing asbestos used for the structure, machinery, electrical installations and equipment of a craft to which this Code applies shall be prohibited except for:

- .1 vanes used in rotary vane compressors and rotary vane vacuum pumps;
- .2 watertight joints and linings used for the circulation of fluids when, at high temperature (in excess of 350°C) or pressure (in excess of  $7 \times 10^6$  Pa), there is a risk of fire, corrosion or toxicity; and
- .3 supple and flexible thermal insulation assemblies used for temperatures above 1000°C.

### 1.3 Application

1.3.1 This Code applies to high-speed craft as specified in 1.3.4 engaged in international voyages the keels of which are laid or which are at a similar stage of construction on or after 1 July 2002.

*This revision of the 2000 Code applies to all UK registered high-speed craft and craft operating in UK waters that are built on or after 1st July 2008.*

1.3.2 For the purpose of this Code, the term "a similar stage of construction" means the stage at which:

- .1 construction identifiable with a specific craft begins; and
- .2 assembly of that craft has commenced comprising at least 50 tonnes or three per cent of the estimated mass of all material used in the structure, including superstructure and deckhouse, whichever is less.

1.3.3 For the purpose of this Code :

- .1 the expression "craft constructed" means craft the keels of which are laid or which are at a similar stage of construction; and
- .2 a cargo craft, whenever built, which is converted to a passenger craft shall be treated as a passenger craft constructed on the date on which such a conversion commences.

1.3.4 This Code applies to:

- .1 passenger craft which do not proceed in the course of their voyage more than four hours at **90% of maximum speed** from a place of refuge; and
- .2 cargo craft of 500 gross tonnage and upwards which do not proceed in the course of their voyage more than 8 h at **90% of maximum speed** from a place of refuge when fully laden.

*A craft engaged on international voyages has to comply with the HSC Code in its entirety, other international requirements, and in addition satisfy the MCA that the craft is adequate for the intended operating envelope.*

Passenger craft engaged in domestic voyages will also be expected to comply with the HSC Code in its entirety, under the provisions of EU Directive 98/18/EC as amended. Particular attention should be paid to Article 2(c) and (f), Article 3(2), Article 4(3), Article 5, Article 6(4), Article 10(3), and Article 11(3). Article 2(c) makes clear reference to the up to date revision of the HSC Code and the wording of SOLAS 1974 Chapter X.

1.3.5 This Code, unless expressly provided otherwise, does not apply to:

- .1 craft of war and troopcraft;
- .2 craft not propelled by mechanical means;
- .3 wooden craft of primitive build;
- .4 pleasure craft not engaged in trade; and

.5 fishing craft.

*However, warships, naval auxiliaries or other craft owned or operated by a Contracting Government and used only on government non-commercial service shall act in a manner consistent, so far as is responsible and practicable and not contradictory to the intended usage of the vessel, with this Code.*

1.3.6 This Code does not apply to craft solely navigating the Great Lakes of North America and the River St. Lawrence as far east as a straight line drawn from Cap des Rosiers to West Point, Anticosti Island and, on the north side of Anticosti Island, the 63rd meridian.

1.3.7 The application of this Code shall be verified by the Administration and be acceptable to the Governments of the States to which the craft will be operating.

## 1.4 Definitions

For the purpose of this Code, unless expressly provided otherwise, the terms used therein have the meanings defined in the following paragraphs. Additional definitions are given in the general parts of the various chapters.

1.4.1 "Administration" means the Government of the State whose flag the craft is entitled to fly.

1.4.2 "Air-cushion vehicle (ACV)" is a craft such that the whole or a significant part of its weight can be supported, whether at rest or in motion, by a continuously generated cushion of air dependent for its effectiveness on the proximity of the surface over which the craft operates.

*This definition includes both amphibious and surface effect ship (SES) types of ACV.*

1.4.3 "Anniversary date" means the day and the month of each year which will correspond to the date of expiry of the relevant certificate.

1.4.4 "Assembly station" is an area where passengers can be gathered in the event of an emergency, given instructions and prepared to abandon the craft, if necessary. The passenger spaces may serve as assembly stations if all passengers can be instructed there and prepared to abandon the craft.

1.4.5 "Auxiliary machinery spaces" are spaces containing internal combustion engines of a power output up to and including 110 kW, driving generators, sprinkler, drencher or fire pumps, bilge pumps, etc., oil filling stations, switchboards of aggregate capacity exceeding 800 kW, similar spaces and trunks to such spaces.

1.4.6 "Auxiliary machinery spaces having little or no fire risk" are spaces such as refrigerating, stabilizing, ventilation and air conditioning machinery, switchboards of aggregate capacity 800 kW or less, similar spaces and trunks to such spaces.

1.4.7 "Base port" is a specific port identified in the route operational manual and provided with:

- .1 appropriate facilities providing continuous radio communications with the craft at all times while in ports and at sea;
- .2 means for obtaining a reliable weather forecast for the corresponding region and its due transmission to all craft in operation;



- .3 for a category A craft, access to facilities provided with appropriate rescue and survival equipment; and
- .4 access to craft maintenance services with appropriate equipment.

1.4.8 "Base port State" means the State in which the base port is located.

1.4.9 "Breadth (B)" means breadth of the broadest part of the moulded watertight envelope of the rigid hull, excluding appendages, at or below the design waterline in the displacement mode with no lift or propulsion machinery active.

1.4.10 "Cargo craft" is any high-speed craft other than a passenger craft, and which is capable of maintaining the main functions and safety systems of unaffected spaces after damage in any one compartment on board.

1.4.11 "Cargo spaces" are all spaces other than special category spaces and ro-ro spaces used for cargo and trunks to such spaces. For the purposes of chapter 7, part D, "cargo spaces" include ro-ro spaces, special category spaces and open deck spaces.

1.4.12 "Category A craft" is any high-speed passenger craft:

- .1 operating on a route where it has been demonstrated to the satisfaction of the flag and port States that there is a high probability that in the event of an evacuation at any point of the route all passengers and crew can be rescued safely within the least of:
  - the time to prevent persons in survival craft from exposure causing hypothermia in the worst intended conditions,
  - the time appropriate with respect to environmental conditions and geographical features of the route, or
  - 4 hours; and
- .2 carrying not more than 450 passengers.

*Note that equal emphasis should be given to both .1 and .2. If a craft carries 450 passengers or less it will still be Category B unless it also operates within the scope of paragraph .1.*

1.4.13 "Category B craft" is any high-speed passenger craft other than a category A craft, with machinery and safety systems arranged such that, in the event of any essential machinery and safety systems in any one compartment being disabled, the craft retains the capability to navigate safely. The damage scenarios considered in chapter 2 should not be inferred in this respect.

1.4.14 "Company" means the company as defined in chapter IX of the Convention.

*"Company" means the owner of the ship or any other organization or person such as the manager, or the bareboat charterer, who has assumed the responsibility for operation of the ship from the owner of the ship and who on assuming such responsibility has agreed to take over all the duties and responsibilities imposed by the International Safety Management Code.*  
(source: Ch IX SOLAS)

1.4.15 "Continuously manned control station" is a control station which is continuously manned by a responsible member of the crew while the craft is in normal service.

1.4.16 "Control stations" are those spaces in which the craft's radio or navigating equipment (main displays and controls for equipment specified in 13.2 to 13.7) or the emergency source of power\* and emergency switchboard are located, or where the fire recording or fire control equipment is centralized<sup>#</sup>, or where other functions essential to the safe operation of the craft such as propulsion control, public address, stabilization systems, etc., are located.

\* Spaces containing, for instance, the following battery sources should be regarded as control stations regardless of battery capacity:

- 1 emergency batteries in separate battery room for power supply from black-out until start of emergency generator;
- 2 emergency batteries in separate battery room as reserve source of energy to radiotelegraph installation;
- 3 batteries for start of emergency generator; and
- 4 in general, all emergency batteries required by 12.3.

<sup>#</sup> Where in the sections of this Code, relevant to fixed fire-extinguishing systems, there are no specific requirements for the centralization within a control station of major components of a system, such major components may be placed in spaces which are not considered to be control stations.

1.4.17 "Convention" means the International Convention for the Safety of Life at Sea, 1974, as amended.

1.4.18 "Crew accommodation" are those spaces allocated for the use of the crew, and include cabins, sick bays, offices, lavatories, lounges and similar spaces.

1.4.19 "Critical design conditions" means the limiting specified conditions, chosen for design purposes, which the craft shall keep in displacement mode. Such conditions shall be more severe than the "worst intended conditions" by a suitable margin to provide for adequate safety in the survival condition.

1.4.20 "Datum" means a watertight deck or equivalent structure of a non-watertight deck covered by a weathertight structure of adequate strength to maintain the weathertight integrity and fitted with weathertight closing appliances.

*The term "watertight" is defined in para 1.4.58, and the term "weathertight" in 1.4.60.*

1.4.21 "Design waterline" means the waterline corresponding to the maximum operational weight of the craft with no lift or propulsion machinery active and is limited by the requirements of chapters 2 and 3.

*The maximum operational weight of the craft shall not be greater than the weight at which both the stability requirements of chapter 2 and the structural strength requirements of chapter 3 are satisfied.*

1.4.22 "Displacement mode" means the regime, whether at rest or in motion, where the weight of the craft is fully or predominantly supported by hydrostatic forces.

*An ACV with lift system operating is supported by a combination of hydrostatic and aerostatic forces and is not therefore considered to be in the displacement mode.*

1.4.23 "Failure Mode and Effect Analysis (FMEA)" is an examination, in accordance with annex 4, of the craft's system and equipment to determine whether any reasonably probable failure or improper operation can result in a hazardous or catastrophic effect.

1.4.24 "Fire Test Procedures Code (FTP Code)" means the International Code for Application of Fire Test Procedures, as defined in chapter II-2 of the Convention.

1.4.25 "Flap" means an element formed as integrated part of, or an extension of, a foil, used to adjust the hydrodynamic or aerodynamic lift of the foil.

1.4.26 "Flashpoint" means a flashpoint determined by a test using the closed-cup apparatus referenced in the International Maritime Dangerous Goods (IMDG) Code.

1.4.27 "Foil" means a profiled plate or three dimensional construction at which hydrodynamic lift is generated when the craft is under way.

1.4.28 "Fully submerged foil" means a foil having no lift components piercing the surface of the water in the foil-borne mode.

1.4.29 "Galleys" are those enclosed spaces containing cooking facilities with exposed heating surfaces, or which have any cooking or **food** heating appliances each having a power of more than 5 kW.

1.4.30 "High-speed craft" is a craft capable of maximum speed, in metres per second (m/s), equal to or exceeding:

$$3.7 \nabla^{0.1667}$$

where:  $\nabla$  = volume of displacement corresponding to the design waterline (m<sup>3</sup>)

excluding craft the hull of which is supported completely clear above the water surface in non-displacement mode by aerodynamic forces generated by ground effect.

*The speed represented by the formula but expressed in knots is  $7.192 \nabla^{0.1667}$ .*

*The term "high-speed craft" now clearly excludes wing-in-ground effect craft, but includes craft partially supported by aerodynamic forces provided the hull is not supported completely clear above the water at operational speed. Craft that can only operate at operational speed if appendages such as submerged foils or propulsors are immersed are considered to be high-speed craft.*

1.4.31 "Hydrofoil craft" is a craft the hull of which is supported completely clear above the water surface in non-displacement mode by hydrodynamic forces generated on foils.

*Craft partially supported by hydrofoils in the non-displacement mode but the hull of which remains partially immersed (eg: foil-cats) are not hydrofoil craft but either monohulls or multihulls according to the hull configuration.*

1.4.32 "IMDG Code" means the International Maritime Dangerous Goods (IMDG) Code as defined in chapter VII of the Convention.

1.4.33 "Length (L)" means the overall length of the underwater watertight envelope of the rigid hull, excluding appendages, at or below the design waterline in the displacement mode with no lift or propulsion machinery active.

1.4.34 "Lightweight" is the displacement of the craft in tonnes without cargo, fuel, lubricating oil, ballast water, fresh water and feedwater in tanks, consumable stores, passengers and crew and their effects.

1.4.35 "Life-Saving Appliances Code (LSA Code)" means the International Life-Saving Appliance Code as defined in chapter III of the Convention.

1.4.36 "Machinery spaces" are spaces containing internal combustion engines either used for main propulsion or having an aggregate total power output of more than 110 kW, generators, oil fuel units, major electrical machinery and similar spaces and trunks to such spaces.

1.4.37 "Maximum operational weight" means the overall weight up to which operation in the intended mode is permitted by the Administration.

*This weight corresponds to the design waterline, see definition of design waterline 1.4.21*

1.4.38 "Maximum speed" is the speed achieved at the maximum continuous propulsion power for which the craft is certified at maximum operational weight and in smooth water.

1.4.39 "Non-displacement mode" means the normal operational regime of a craft when non-hydrostatic forces substantially or predominantly support the weight of the craft.

1.4.40 "Oil fuel unit" includes any equipment for the preparation of oil fuel and delivery of oil fuel, heated or not, to boilers and engines (including gas turbines) at a pressure of more than 0.18 N/mm<sup>2</sup>.

1.4.41 "Open ro-ro spaces" are those ro-ro spaces:

.1 to which any passengers carried have access; and

.2 which either:

.2.1 are open at both ends; or

.2.2 have an opening at one end and are provided with permanent openings distributed in the side plating or deckhead or from above, having a total area of at least 10% of the total area of the space sides.

1.4.42 "Operating limitations" means the craft limitations in respect of handling, controllability and performance and the craft operational procedures within which the craft is to operate.

1.4.43 "Operating compartment" means the enclosed area from which the navigation and control of the craft is exercised.

1.4.44 "Operating station" means a confined area of the operating compartment equipped with necessary means for navigation, manoeuvring and communication, and from where the functions of navigating, manoeuvring, communication, commanding, conning and lookout are carried out.

1.4.45 "Organization" means the International Maritime Organization.

1.4.46 "Passenger" is every person other than:

- .1 the master and members of the crew or other persons employed or engaged in any capacity on board a craft on the business of that craft; and
- .2 a child under one year of age.

1.4.47 "Passenger craft" is a craft which carries more than twelve passengers.

1.4.48 "Place of refuge" is any naturally or artificially sheltered area which may be used as a shelter by a craft under conditions likely to endanger its safety.

1.4.49 "Public spaces" are those spaces allocated for the passengers and include bars, refreshment kiosks, smoke rooms, main seating areas, lounges, dining rooms, recreation rooms, lobbies, lavatories and similar spaces, and may include sales shops.

1.4.50 "Refreshment kiosks" are those spaces which are not enclosed, serving refreshments and containing food warming equipment having a total power of 5 kW or less and with an exposed heating surface temperature not above 150°C.

1.4.51 "Ro-ro craft" is a craft fitted with one or more ro-ro spaces.

1.4.52 "Ro-ro spaces" are spaces not normally subdivided in any way and normally extending to either a substantial length or the entire length of the craft in which motor vehicles with fuel in their tanks for their own propulsion and/or goods (packaged or in bulk, in or on rail or road cars, vehicles (including road or rail tankers), trailers, containers, pallets, demountable tanks or in or on similar stowage units or other receptacles) can be loaded and unloaded, normally in a horizontal direction.

1.4.53 "Service spaces" are those enclosed spaces used for pantries containing food warming equipment but no cooking facilities with exposed heating surfaces, lockers, sales shops, store-rooms and enclosed baggage rooms. Such spaces containing no cooking appliances may contain:

- .1 coffee automats, toasters, dish washers, microwave ovens, water boilers and similar appliances, each of them with a maximum power of 5 kW; and
- .2 electrically heated cooking plates and hot plates for keeping food warm, each of them with a maximum power of 2 kW and a surface temperature not above 150°C.

1.4.54 "Significant wave height" is the average crest-to-trough height of the highest one third of the zero-upcrossing waves in a specified period.

*Alternatively, this may be expressed mathematically as four times the square-root of the area under the wave energy spectrum. (Waves in Ocean Engineering – Ellis Horwood)*

1.4.55 "Special category spaces" are those enclosed ro-ro spaces to which passengers have access. Special category spaces may be accommodated on more than one deck provided that the total overall clear height for vehicles does not exceed 10 m.

1.4.56 "Surface-effect ship" (SES) is an air-cushion vehicle whose cushion is totally or partially retained by permanently immersed hard structures.

1.4.57 "Transitional mode" means the regime between displacement and non-displacement modes.

1.4.58 "Watertight" in relation to a structure means capable of preventing the passage of water through the structure in any direction under the head of water likely to occur in the intact or damaged condition.

1.4.59 "Weather deck" is a deck which is completely exposed to the weather from above and from at least two sides.

1.4.60 "Weathertight" means that water will not penetrate into the craft in any wind and wave conditions up to those specified as critical design conditions.

1.4.61 "Worst intended conditions" means the specified environmental conditions within which the intentional operation of the craft is provided for in the certification of the craft. This shall take into account parameters such as the worst conditions of wind force allowable, significant wave height (including unfavourable combinations of length and direction of waves), minimum air temperature, visibility and depth of water for safe operation and such other parameters as the Administration may require in considering the type of craft in the area of operation.

## 1.5 Surveys

Refer also to S.I. 2001 No.152 Merchant Shipping (Mandatory Surveys for Ro-Ro Ferry and High Speed Passenger Craft) Regulations 2001, as amended, and associated MGN 171(M), which implement EU Directive 1999/35/EC, as amended.

1.5.1 Each craft shall be subject to the surveys specified below:

- .1 an initial survey before the craft is put in service or before the Certificate is issued for the first time;
- .2 a renewal survey at intervals specified by the Administration but not exceeding 5 years except where 1.8.5 or 1.8.10 is applicable;
- .3 a periodical survey within three months before or after each anniversary date of the Certificate; and
- .4 an additional survey as the occasion arises.

1.5.2 The surveys referred to in 1.5.1 shall be carried out as follows:

- .1 the initial survey shall include:
  - .1.1 an appraisal of the assumptions made and limitations proposed in relation to loadings, environment, speed and manoeuvrability;
  - .1.2 an appraisal of the data supporting the safety of the design, obtained, as appropriate, from calculations, tests and trials;
  - .1.3 a failure mode and effect analysis as required by this Code;
  - .1.4 an investigation into the adequacy of the various manuals to be supplied with the craft; and

- .1.5 a complete inspection of the structure, safety equipment, radio installations and other equipment, fittings, arrangements and materials to ensure that they comply with the requirements of the Code, are in satisfactory condition and are fit for the service for which the craft is intended;
- .2 the renewal and periodical surveys shall include a complete inspection of the structure, including the outside of the craft's bottom and related items, safety equipment, radio installations and other equipment as referred to in 1.5.2.1 to ensure that they comply with the requirements of the Code, are in satisfactory condition and are fit for the service for which the craft is intended. The inspection of the craft's bottom shall be conducted with the craft out of the water under suitable conditions for close-up examination of any damaged or problem areas; and

*In-water surveys between dry dockings on a bi-annual basis may be acceptable to the MCA (where the equivalence is agreed by trial or otherwise) subject to the conditions for in water surveys being applied (MGN 217) and the inside of the hull being fully accessible. It may be necessary to have the vessel in non operational mode in order to achieve the required level of access. Small vessels operating on domestic routes or in categorized waters in general will not normally be permitted in water surveys. A vessel with few appendages and underwater openings or one fitted with an impressed current protection system, or other suitable provision would be considered favourably. Special consideration should be given to the type of craft and vessel operating route before the option of in water survey is granted for Ro Ro HSC: the predominant added risk here is the need for berthing at a link span or similar structure which may require provision for better survey access. The hull penetrations below the waterline and clear reference points are to be marked up on a plan and painted on the hull. An agreed procedure is to be in place to report any possible contact damage.*

*It would not normally be acceptable to the MCA to start a bi-annual in-water survey program until after the second periodical survey and dry docking after the ships build, e.g. first IWS at year 3. The logic of not starting IWS prior to this is that detailed out of water examination of hull and equipment over a two year period is better able to verify the ability of the vessel and fittings to operate over a two year period between drydocking based on the known conditions established by detailed examination at year 1 and year 2. This provision for detailed examination and "benchmarking" is probably most significant for waterjet propulsion systems, foil arrangements and in some cases identification and monitoring of "high stress" areas in hulls particularly where more innovative design has been applied. Instances where it may be acceptable to start the IWS at year 2 would be for vessels not fitted with waterjet, or foil arrangements and that undergo monitoring of high stress areas in the hull/s where they are of an innovative design.*

*Refer to MGN 217 on In-Water surveys, though note that IWS of conventional ships is carried out on a twice in 5 yearly basis which is not appropriate for HSC.*

- .3 an additional survey, either general or partial according to the circumstances, shall be made after a repair resulting from investigations prescribed in 1.7.3, or whenever any important repairs or renewals are made. The survey shall be such as to ensure that the necessary repairs or renewals have been effectively made, that the material and workmanship of such repairs or renewals are in all respects satisfactory, and that the craft complies in all respects with the requirements of the Code.

1.5.3 The periodical surveys referred to in 1.5.1.3 shall be endorsed on the High-Speed Craft Safety Certificate.

1.5.4 The inspection and survey of the craft, so far as regards the enforcement of the provisions of the Code, shall be carried out by officers of the Administration. The Administration may, however, entrust the inspections and surveys either to surveyors nominated for the purpose or to organizations recognized by it.

1.5.5 An Administration nominating surveyors or recognizing organizations to conduct inspections and surveys as set forth in 1.5.4 shall, as a minimum, empower any nominated surveyor or recognized organization to:

- .1 require repairs to a craft; and
- .2 carry out inspections and surveys if requested by the appropriate authorities of a port State.

The Administration shall notify the Organization of the specific responsibilities and conditions of the authority delegated to nominated surveyors or recognized organizations.

1.5.6 When a nominated surveyor or recognized organization determines that the condition of the craft or its equipment does not correspond substantially with the particulars of the Certificate or is such that the craft is not fit to operate without danger to the craft or persons on board, the surveyor or organization shall immediately ensure that corrective action is taken and shall, in due course, notify the Administration. If such corrective action is not taken, the Certificate shall be withdrawn and the Administration shall be notified immediately; and, if the craft is in an area under the jurisdiction of another Government, the appropriate authorities of the port State shall be notified immediately. When an officer of the Administration, a nominated surveyor or a recognized organization has notified the appropriate authorities of the port State, the Government of the port State concerned shall give such officer, surveyor or organization any necessary assistance to carry out their obligations under this section. When applicable, the Government of the port State concerned shall ensure that the craft shall not continue to operate until it can do so without danger to the craft or the persons on board.

1.5.7 In every case, the Administration shall fully guarantee the completeness and efficiency of the inspection and survey, and shall undertake to ensure the necessary arrangements to satisfy this obligation.

## **1.6 Approvals**

The owner of a craft shall accept the obligation to supply sufficient information to enable the Administration to fully assess the features of the design. It is strongly recommended that the Company and the Administration and, where appropriate, the port State or States shall commence discussions at the earliest possible stage so that the Administration may fully evaluate the design in determining what additional or alternative requirements shall be applied to the craft, to achieve the required level of safety.

*The Lead surveyor will need to be satisfied that the craft will adequately withstand its intended operating envelope. All equipment must be to the satisfaction of the Lead Surveyor, who will generally apply IMO, ISO or IEC Standards. Where required by legislation, particular items of equipment must be type approved.*

*The MCA will approve the manuals using the QMS procedure MCA 292. When the Lead Surveyor is satisfied that a manual is acceptable, he will issue a letter to the operator and put an authorised statement on the first page of the manual, showing the number of pages and that no addition or amendment should be made without prior approval of the MCA.*



## 1.7 Maintenance of conditions after survey

1.7.1 The condition of the craft and its equipment shall be maintained to conform with the provisions of this Code to ensure that the craft in all respects will remain fit to operate without danger to the craft or the persons on board.

1.7.2 After any survey of the craft under section 1.5 has been completed, no change shall be made to structure, equipment, fittings, arrangements and materials covered by the survey, without the sanction of the Administration.

1.7.3 Whenever an accident occurs to a craft or a defect is discovered, either of which affects the safety of the craft or the efficiency or completeness of structure, equipment, fittings, arrangements and materials, the person in charge or owner of the craft shall report at the earliest opportunity to the Administration, the nominated surveyor or recognized organization responsible, who shall cause investigations to be initiated to determine whether a survey, as required by section 1.5, is necessary. If the craft is in an area under the jurisdiction of another Government, the person in charge or the owner shall also report immediately to the appropriate authorities of the port State and the nominated surveyor or recognized organization shall ascertain that such a report has been made.

## 1.8 High-Speed Craft Safety Certificate

1.8.1 A Certificate called a High-Speed Craft Safety Certificate is issued after completion of an initial or renewal survey to a craft which complies with the requirements of the Code. The Certificate shall be issued or endorsed either by the Administration or by any person or organization recognized by it. In every case, that Administration assumes full responsibility for the Certificate. On all craft, all certificates issued under this chapter, or certified copies thereof, shall be carried on the craft. Except where the flag State is a Party to the 1988 SOLAS Protocol, a copy of each of these certificates shall be posted up in a prominent and accessible place in the craft.

*Where a survey of a UK craft meets the requirement of this code in its entirety, the Lead Surveyor will issue a High Speed Craft Safety Certificate in accordance with this section.*

*In case of an HSC engaged on sheltered domestic voyages which cannot comply fully with the requirements of this Code, the Lead Surveyor will issue a United Kingdom High Speed Craft Safety Certificate. This is not allowed on seagoing domestic voyages by the EC Directive 98/18/EC.*

*A United Kingdom High Speed Craft Safety Certificate will be of the same period as a High Speed Craft Safety Certificate which will be valid for 5 years, subject to satisfactory annual surveys.*

### **Additional requirements for all passenger Ro-Ro HSC operating in UK waters:**

In order for a HSC to obtain full approval of their stability calculations then the Stockholm Agreement requirements must be satisfied, if required. Refer directly to S.I. 2004 No. 2884 The Merchant Shipping (Ro-Ro Passenger Ships) (Stability) Regulations 2004 and its associated MSN 1790 (including Amendment 1) for application. Refer to the additional requirements at the start of Chapter 2 and also Appendix C of this Guidance Document.

1.8.2 A Contracting Government to the Convention may, at the request of the Administration, cause a craft to be surveyed and, if satisfied that the requirements of the

Code are complied with, shall issue or authorise the issue of a Certificate to the craft and, where appropriate, endorse or authorize the endorsement of a Certificate on the craft in accordance with the Code. Any Certificate so issued shall contain a statement to the effect that it has been issued at the request of the Government of the State the flag of which the craft is entitled to fly, and it shall have the same force and receive the same recognition as a Certificate issued under 1.8.1.

1.8.3 The Certificate shall be that of the model given in the annex 1 to the Code. If the language used is not English, French or Spanish, the text shall include a translation into one of these languages.

1.8.4 The High-Speed Craft Safety Certificate shall be issued for a period specified by the Administration which shall not exceed 5 years.

1.8.5 Notwithstanding the requirements of 1.8.4, when the renewal survey is completed within three months before the expiry date of the existing Certificate, the new Certificate shall be valid from the date of completion of the renewal survey to a date not exceeding 5 years from the date of expiry of the existing Certificate.

1.8.6 When the renewal survey is completed after the expiry date of the existing Certificate, the new Certificate shall be valid from the date of completion of the renewal survey to a date not exceeding 5 years from the date of expiry of the existing Certificate.

1.8.7 When the renewal survey is completed more than 3 months before the expiry date of the existing Certificate, the new Certificate shall be valid from the date of completion of the renewal survey to a date not exceeding 5 years from the date of completion of the renewal survey.

1.8.8 If a Certificate is issued for a period of less than 5 years, the Administration may extend the validity of the Certificate beyond the expiry date to the maximum period specified in 1.8.4, provided that the surveys required when a Certificate is issued for a period of 5 years are carried out.

1.8.9 If a renewal survey has been completed and a new Certificate cannot be issued or placed on board the craft before the expiry date of the existing Certificate, the person or organization authorized by the Administration may endorse the existing Certificate and such a Certificate shall be accepted as valid for a further period which shall not exceed 5 months from the expiry date.

1.8.10 If a craft, at the time when a Certificate expires, is not in the place in which it is to be surveyed, the Administration may extend the period of validity of the Certificate but this extension shall be granted only for the purpose of allowing the craft to proceed to the place in which it is to be surveyed, and then only in cases where it appears proper and reasonable to do so. No Certificate shall be extended for a period longer than one month, and a craft to which an extension is granted shall not, on its arrival in the place in which it is to be surveyed, be entitled by virtue of such extension to leave that place without having a new Certificate. When the renewal survey is completed, the new Certificate shall be valid to a date not exceeding 5 years from the date of expiry of the existing Certificate before the extension was granted.

1.8.11 In special circumstances, as determined by the Administration, a new Certificate need not be dated from the date of expiry of the existing Certificate as required by 1.8.6 or 1.8.10. In these circumstances, the new Certificate shall be valid to a date not exceeding 5 years from the date of completion of the renewal survey.

1.8.12 If a periodical survey is completed before the period specified in section 1.5 then:

- .1 the anniversary date shown on the relevant Certificate shall be amended by endorsement to a date which shall not be more than 3 months later than the date on which the survey was completed;
- .2 the subsequent periodical survey required by section 1.5 shall be completed at the intervals prescribed by 1.5 using the new anniversary date; and
- .3 the expiry date may remain unchanged provided one or more periodical surveys are carried out so that the maximum intervals between the surveys prescribed by 1.5.1.3 are not exceeded.

1.8.13 A Certificate issued under 1.8.1 or 1.8.2 shall cease to be valid in any of the following cases:

- .1 if the relevant surveys are not completed within the periods specified in 1.5.1;
- .2 if the Certificate is not endorsed in accordance with 1.5.3;
- .3 upon transfer of the craft to the flag of another State. A new Certificate shall only be issued when the Government issuing the new Certificate is fully satisfied that the craft is in compliance with the requirements of 1.7.1 and 1.7.2. In the case of a transfer between Governments that are Contracting Governments to the Convention, if requested within 3 months after the transfer has taken place, the Government of the State whose flag the craft was formerly entitled to fly shall, as soon as possible, transmit to the Administration a copy of the Certificate carried by the craft before the transfer and, if available, copies of the relevant survey reports.

1.8.14 The privileges of the Code may not be claimed in favour of any craft unless it holds a valid Certificate.

## **1.9 Permit to Operate High-Speed Craft**

1.9.1 The craft shall not operate commercially unless a Permit to Operate High-Speed Craft is issued and valid in addition to the High-Speed Craft Safety Certificate.

1.9.1.1 On all craft, transit voyages may be undertaken without a valid Permit to Operate High-Speed Craft provided the craft is not operating commercially with passengers or cargo onboard. For the purpose of this provision, these transit voyages include delivery voyages, i.e., builder's port to base port, and voyages for repositioning purposes, i.e., change of base port and/or route. Such transit voyages in excess of the limits set out in this Code may be undertaken provided that:

- .1 the craft has a valid High-Speed Craft Safety Certificate or similar before the start of such a voyage;
- .2 the operator has developed a safety plan for the voyage including any temporary accommodation and all relevant matters listed in 18.1.3 to ensure that the craft is capable of safely completing the transit voyage;
- .3 the master of the craft is provided with the materials and information

necessary to operate the craft safely during the transit voyage; and

- .4 the Administration is satisfied that arrangements have been made for the safe conduct of the voyage.

*The master of a craft undergoing any transit voyage will be responsible to have a passage plan in place which includes a risk assessment with respect to wake wash. See also 18.3.2 and Appendix D.*

1.9.2 The Permit to Operate High-Speed Craft shall be issued by the Administration to certify compliance with 1.2.2 to 1.2.7 and stipulate conditions of the operation of the craft and drawn up on the basis of the information contained in the route operational manual specified in chapter 18 of this Code.

*To operate commercially, all high-speed craft (HSC) must have a Permit to Operate (POHSC), setting out the safety limitations and conditions imposed on their operation. This is drawn up on the basis of the information contained in the Route Operational Manual and the Type Rating Certificates for the operating crew. The management and reduction of risk is complemented by detailed operating and maintenance manuals, which must be carried on board and agreed as part of the POHSC process. MCA HQ will continue to ensure consistency across MCA Marine Offices by reviewing the draft POHSC and its supporting documentation before it is issued in final form by the local Marine Office.*

*For newbuild HSC and HSC new (post 1 July 2008) to UK operations the limitations on the Permit to Operate should be set taking consideration of the IMO Draft Guidelines for Uniform Operating Limitations for High Speed Craft , MSC.1/Circ.1329. See Annex 2 and MCA Headquarters for details.*

1.9.3 Before issuing the Permit to Operate, the Administration shall consult with each port State to obtain details of any operational conditions associated with operation of the craft in that State. Any such conditions imposed shall be shown by the Administration on the Permit to Operate and included in the route operational manual.

#### **UK craft**

*The POHSC is issued by the Lead Surveyor to certify compliance with the general requirements of the 1994 or 2000 HSC Code and, specifically, that the requirements of paragraphs 1.2.2 to 1.2.11 and 18.1.3 of the 1994 or 2000 HSC Code have been met.*

*Before a POHSC can be issued, the following documents should be submitted by owners or operators to the MCA's relevant Lead Surveyor:*

- (a) High Speed Craft Safety Certificate or Dynamically Supported Craft Safety Certificate;*
- (b) copies of the craft's manuals (see table in General Guidance);*
- (c) each Port State: evidence that relevant Port States have been consulted.*
- (d) each Harbour Authority: a statement from the relevant Harbour Authorities in each port of call to confirm that the port authorities have agreed with the port arrangements made by the operators (eg. noise pollution, air pollution, Customs, wash from the craft within the port limit, berthing, schedules, safety arrangements at terminals, etc);*

(e) a statement from a Regional Director (who will be able to form an opinion based on advice from the Area Operations Manager Survey and the Coastal Safety Manager) that they are satisfied that arrangements are in place to deal with reasonable, foreseeable emergencies, and search and rescue. Regional Directors' contact details may be obtained from any Coastguard office. The local Coastguard Rescue Co-ordination Centre (MRCC/SC) would require a controlled copy of the company emergency procedures manuals.

Refer to MSN 1783(M) (or any subsequent amendment)– Arrangements for the Carriage of Agreed Search and Rescue Plans Aboard UK Passenger Vessels and the Merchant Shipping (Safety of Navigation) Regulations S.I. 2002 No. 1473.

### **Non-UK craft**

The POHSC is issued by the Flag State. The Lead Surveyor in the relevant Marine Office must be fully consulted about the operational conditions and the consultation with each Port State, each Port Authority and Coastguard. The craft's owners or operators must co-ordinate all documentation and liaise with the Lead Surveyor.

The Lead Surveyor will issue a statement (in the format attached; Annex 2 to the Code) on behalf of the UK (as the Port State) to certify compliance with the requirements. The owner should be advised that a copy of this statement should be kept on board with the POHSC and be available to MCA surveyors during inspection and/or ISM/SMC Audits.

### **All High-Speed Craft Operating in UK Waters**

Operational criteria of the POHSC will include consideration of the effects of wake wash on other vessels, coastal users and the shoreline. Operators of HSC in UK waters are therefore required to submit:

- a risk assessment of the passage plan with relation to the effects of wake wash, and
- identification of any areas likely to be affected by wake wash and any subsequent action taken to reduce it

Refer to Appendix D for further details on this risk assessment, also to 18.3.2 regarding training.

In addition to the requirements of the HSC Code a Ro-Ro passenger vessel on a regular scheduled international voyage is also required to comply with the Stockholm Agreement. Refer to guidance under 1.8.1, Part A of Chapter 2 and Appendix C for further details.

1.9.4 A port State may inspect the craft and audit its documentation for the sole purpose of verifying its compliance with the matters certified by and conditions associated with the Permit to Operate. Where deficiencies are shown by such an audit, the Permit to Operate ceases to be valid until such deficiencies are corrected or otherwise resolved.

The MCA may also be asked to issue a POHSC for a craft operating in UK waters on behalf of another Flag State Administration. The Lead Surveyor will then issue the POHSC as for a UK flag craft.

1.9.5 The provisions of 1.8 shall apply to the issue and the period of validity of the Permit to Operate High-Speed Craft.

*A POHSC will be valid for a period not exceeding 12 months, subject to the parallel validity of the HSC Safety Certificate. A permit shall be re-issued for any amendment and after the validity period has expired. Any amendments or renewal of the permit should follow the same procedure as above.*

1.9.6 The Permit to Operate High-Speed Craft shall be that of the model given in annex 2 to this Code. If the language used is not English, French or Spanish, the text shall include a translation into one of these languages.

1.9.7 In determining the worst intended conditions and the operational limitations on all craft for insertion in the Permit to Operate, the Administration shall give consideration to all the parameters listed in annex 12. The limitations assigned shall be those that enable compliance with all of these factors.

*For newbuild HSC and HSC new to UK operations (post 1 July 2008) the limitations on the Permit to Operate should be set taking consideration of MSC.1/Circ.1329 Guidelines for uniform operating limitations of high-speed craft. See Annex 2 for further instructions relating to this MSC Circular.*

*For existing ships (pre 1 July 2008) the Guidelines should be met as far as reasonable and practicable. Where a vessel continues or resumes an operation on a particular route/s for a particular operator it is not expected by the MCA that the vessel's limitations associated with the Permit to Operate are reassessed in the light of the new Guidance. Where another host or home state is involved in the vessels operation then a different approach may need to be taken to meet their requirement.*

## **1.10 Control**

The provisions of regulation I/19 of the Convention shall be applied to include the Permit to Operate High-Speed Craft in addition to the Certificate issued under 1.8.

## **1.11 Equivalentents**

1.11.1 Where this Code requires that a particular fitting, material, appliance or apparatus, or type thereof, shall be fitted or carried in a craft, or that any particular provision shall be made, the Administration may allow any other fitting, material, appliance or apparatus, or type thereof, to be fitted or carried, or any other provision to be made in the craft, if it is satisfied by trial thereof or otherwise that such fitting, material, appliance or apparatus, or type thereof, or provision, is at least as effective as that required by this Code.

1.11.2 Where compliance with any of the requirements of this Code would be impractical for the particular designs of the craft, the Administration may substitute those with alternative requirements, provided that equivalent safety is achieved. The Administration which allows any such substitution shall communicate to the Organization particulars of these substitutions and the reasons therefore, which the Organization shall circulate to its Member Governments for their information.

*The MCA will consider alternative provisions and equipment that offer a demonstrated equivalent level of safety, as required by the 2000 HSC Code. All agreed equivalentents for craft engaged on international voyages should be reported to IMO. For passenger vessels on seagoing domestic voyages any equivalences to the HSC Code should be agreed for that class of vessels by the EC under Article 7 of 98/18/EC as amended. For HSC in operation in UK A, B, C, or D categorized waters any equivalencies must be discussed with MCA Vessel Policy Branch.*

*All equivalents and alternative provisions should be agreed with the MCA in advance. In case of existing craft, all equipment, equivalents and alternatives agreed/accepted by the previous Flag State or recognised organisations must be presented by the operator, to MCA for approval.*

*When an equivalence is applied for, reference should be made to the MCA's current guidance available on this.*

### **Hovercraft**

*Where the special characteristics of hovercraft (ACVs) cause difficulty with demonstrating full compliance with the 2000 HSC Code, the MCA will give consideration to the application of specific aspects of the British Hovercraft Safety Requirements for guidance as offering an equivalent level of safety. The B.H.S.R. were reviewed in 1991 and will not be updated.*

*The 'C' mark, draught marks and draught gauges, an echo sounding device and the risk assessment of the passage plan with respect to wake wash will not necessarily be required.*

## **1.12 Information to be made available**

1.12.1 The Administration shall ensure that the management of the Company operating the craft has provided the craft with adequate information and guidance in the form of manuals to enable the craft to be operated and maintained safely. These manuals shall include a route operational manual, craft operating manual, maintenance manual and servicing schedule. Such information shall be updated as necessary.

1.12.2 The manuals shall contain at least the information specified in chapter 18, and shall be in a language understood by the crew. Where this language is not English, a translation into English shall be provided of at least the route operational manual and the craft operating manual.

## **1.13 Further developments**

1.13.1 It is recognized that there is much ongoing research and development in the design of high-speed craft and that new types may emerge which have a different geometry to that envisaged during the formulation of this Code. It is important that this Code does not restrict this progress and the development of new designs.

1.13.2 A design may be produced which cannot comply with the provisions of this Code. In such a case the Administration shall determine the extent to which the provisions of the Code are applicable to the design and, if necessary, develop additional or alternative requirements to provide an equivalent level of safety for the craft.

1.13.3 The foregoing shall be considered by the Administration when assessing the granting of equivalents under the Code.

## **1.14 Circulation of safety information**

1.14.1 In the event that an Administration has cause to investigate an accident involving a craft to which this Code applies, that Administration shall provide a copy of the official report to the Organization, which will invite Member States to note the existence of the report and to obtain a copy.

1.14.2 In the event that operational experience reveals structural or equipment failures affecting the safety of a design, craft owners shall inform the Administration.

## **1.15 Review of the Code**

1.15.1 The Code shall be reviewed by the Organization at intervals preferably not exceeding **six** years to consider revision of existing requirements to take account of new developments in design and technology.

1.15.2 Where a new development in design and technology has been found acceptable to an Administration, that Administration may submit particulars of such development to the Organization for consideration for incorporation into the Code during the periodical review.