

---

**National Standard**  
**for**  
**Commercial Vessels**

**PART F**  
**SPECIAL VESSELS**

**SECTION 1**  
**FAST CRAFT**

**SUBSECTION 1B**  
**CATEGORY F1 FAST CRAFT**

### Edition 1.3

Draft for comment of Edition 1 was issued on 1 July 2001.  
Edition 1 was endorsed by the Australian Transport Council in July 2002,  
and first published in August 2002.

This compilation was prepared by the Australian Maritime Safety Authority  
on 29 June 2018 taking into account:

- correction Amendment 1, that commenced in October 2010;
- Amendment No.1, 2016 that was approved by the National Marine Safety Regulator on 7 June 2016 to commence on 10 June 2016;  
and
- Amendment No.1, 2018 that was approved by the National Marine Safety Regulator on 15 June 2018 to commence on 1 July 2018.

### Copyright



© Australian Maritime Safety Authority 2022

The Australian Maritime Safety Authority encourages the dissemination and exchange of information provided in this publication.

Except as otherwise specified, all material presented in this publication is provided under Creative Commons Attribution 4.0 International licence.

This excludes:

- the Commonwealth Coat of Arms
- this Authority's logo
- content supplied by third parties.

The Creative Commons Attribution 4.0 International Licence is a standard form licence agreement that allows you to copy, distribute, transmit and adapt this publication provided that you attribute the work.

The details of the version 4.0 of the licence are available on the Creative Commons website, as is the full legal code for that licence.

### Attribution

The Australian Maritime Safety Authority's preference is that you attribute this publication (and any material sourced from it) using the following wording:

Source:

© Australian Maritime Safety Authority, *National Standard for Commercial Vessels, Part F – Special Vessels, Section 1 - Fast Craft, Subsection 1B – Category F1 Fast Craft*

### More information

For inquiries regarding copyright including requests to use material in a way that is beyond the scope of the terms of use that apply to it, please contact us.

### Disclaimer

Australian Maritime Safety Authority accepts no liability for the accuracy of the information nor its use or the reliance placed on it.

## FOREWORD

This Section of the National Standard for Commercial Vessels was prepared as part of the review of the Uniform Shipping Laws Code. It is additional to the content in the Uniform Shipping Laws Code, standards for vessels travelling at speed not being addressed within that document.

In drafting this Section, consideration was given to a number of factors including:

- a) Technological developments that have occurred in the performance of vessels engaged in domestic operations in Australia.
- b) The development of the IMO Code of Safety for High Speed Craft applicable to vessels engaged in international operations.
- c) The integration of aspects of the HSC Code into the high speed and light craft rules of most Classification Societies.
- d) The adoption of the HSC Code by Commonwealth legislation for domestic vessels engaged in interstate operations.
- e) The fact that some State & Territory jurisdictions already require compliance with parts of the HSC Code by administrative means to certain domestic vessels engaged in intrastate operations.

This Subsection of the NSCV is intended to be read in conjunction with Part B—General Requirements of the NSCV.

The NMSC Secretariat drafted this Subsection with the assistance of a reference group comprising representatives from industry, State and Territory marine Authorities, and the Australian Marine Safety Authority (AMSA). A workshop on Fast Craft was hosted by the NMSC in May 2000 with the purpose of reviewing safety issues to be addressed by the Standard.

A draft of this Subsection, along with a Regulatory Impact Statement, was released for public comment on 1 July 2001. A reference group met in September 2001 to review and assess the public comment and to provide recommendations on the document to the NMSC. The NMSC accepted the recommendations of the reference group on 14 November 2001 and the draft Subsection and RIS were revised accordingly.

The office of Regulation Review provided an assessment of the final RIS in March 2002. NMSC approved this version of the Subsection in February 2002, with the Australian Transport Council (ATC) endorsing the document for publication in July 2002.

This standard was first published in August 2002 on CD, and again in April 2005 on CD. There were no amendments between the first and second publication.

Edition 1 was later subject to a correction amendment. Amendment 1 to Clause 3.6.1 was endorsed by NMSC on 5 October 2010 and published in October 2010.

Since 2010, Edition 1 has been subject to two consequential amendments (Amendment 1 of 2016 and Amendment 1 of 2018) which aligned references and requirements in the standard to other standards and Marine Orders.

## CONTENTS

CHAPTER 1	PRELIMINARY .....	7
	1.1 Scope .....	7
	1.2 Application .....	7
	1.3 Objective.....	7
	1.4 Definitions.....	7
	1.5 Abbreviations.....	7
	1.6 International Code of Safety for High-Speed Craft (HSC Code).....	7
CHAPTER 2	REQUIRED OUTCOMES .....	8
	2.1 General.....	8
	Required outcomes .....	8
	2.2 General requirements—HSC Code Chapter 1 .....	8
	2.3 Buoyancy, stability and subdivision—HSC Code Chapter 2.....	8
	2.4 Structures—HSC Code Chapter 3.....	9
	2.5 Accommodation and escape measures—HSC Code Chapter 4 .....	9
	2.6 Directional control systems—HSC Code Chapter 5.....	10
	2.7 Anchoring, towing and berthing—HSC Code Chapter 6 .....	11
	2.8 Fire safety—HSC Code Chapter 7 .....	11
	2.9 Life-saving appliances and arrangements—HSC Code Chapter 8....	12
	2.10 Machinery—HSC Code Chapter 9.....	13
	2.11 Auxiliary systems—HSC Code Chapter 10 .....	13
	2.12 Remote control, alarm and safety systems—HSC Code Chapter 11	14
	2.13 Electrical installations—HSC Code Chapter 12 .....	14
	2.14 Navigational equipment—HSC Code Chapter 13 .....	15
	2.15 Radiocommunications—HSC Code Chapter 14 .....	15
	2.16 Operating compartment layout—HSC Code Chapter 15 .....	16
	2.17 Stabilisation systems—HSC Code Chapter 16 .....	17
	2.18 Handling, controllability and performance—HSC Code Chapter 17 ..	17
	2.19 Operational requirements—HSC Code Chapter 18 .....	17
	2.20 Inspection and maintenance requirements—HSC Code Chapter 19	17
CHAPTER 3	DEEMED-TO-SATISFY SOLUTIONS .....	18

3.1	Compliance with HSC Code .....	18
3.2	General requirements—HSC Code Chapter 1 .....	18
3.3	Buoyancy, stability and subdivision—HSC Code Chapter 2.....	20
3.4	Structures—HSC Code Chapter 3.....	20
3.5	Accommodation and escape measures—HSC Code Chapter 4 .....	20
3.6	Anchoring, towing and berthing—HSC Code Chapter 6 .....	21
3.7	Life-saving appliances and arrangements—HSC Code Chapter 8....	21
3.8	Radiocommunications—HSC Code Chapter 14 .....	22
3.9	Operational requirements—HSC Code Chapter 18 .....	22

## CHAPTER 1 PRELIMINARY

### 1.1 SCOPE

This Subsection of the NSCV specifies requirements for the design, construction and operation of seagoing Class 1 & 2 fast craft of equivalent length ( $L_e$ ) 35 m and more engaged in domestic operations in Australia (Category F1 Fast Craft).

It shall be read in conjunction with Part F Subsection 1A (General Requirements for Fast Craft), and Part B—General Requirements of the NSCV.

### 1.2 APPLICATION

This Subsection applies to Category F1 Fast Craft.

### 1.3 OBJECTIVE

The objective of this Subsection is to specify standards for the design and construction of larger seagoing fast craft engaged in domestic operations that are consistent with the requirements applied to equivalent craft engaged on international voyages under the IMO High Speed Craft Code.

NOTE: The risks associated with the operation of large seagoing fast craft within Australia are similar to those for fast craft operating under the HSC Code in an international context. The differences are mainly a matter of jurisdiction rather than practical operation and environment. Accordingly the standards applicable to Category F1 Fast Craft closely mirror the standards contained within the HSC Code.

### 1.4 DEFINITIONS

For the purposes of this Subsection of the National Standard for Commercial Vessels—

- a) the definitions given in Part B of the NSCV, Part F Section 1A of the NSCV, and Clause 1.4 of the HSC Code as modified in Chapter 3 of this Subsection shall apply; and
- b) where there is any duplication in the terms defined, the definition in Part F Section 1 Subsection 1A shall apply, followed by Part B.

### 1.5 ABBREVIATIONS

#### FMEA—

failure mode and effect analysis

### 1.6 INTERNATIONAL CODE OF SAFETY FOR HIGH-SPEED CRAFT (HSC CODE)

For the purposes of this Subsection of the NSCV, compliance with the HSC Code is considered to provide a standard of safety for a Category F1 Fast Craft equivalent to that of the NSCV Parts B to E for a conventional vessel.

## CHAPTER 2 REQUIRED OUTCOMES

### 2.1 GENERAL

A Category F1 Fast Craft must meet the required outcomes specified in Clauses 2.2 to 2.20.

NOTE: The chapters of the HSC Code referred to in the headings in this Chapter are used to relate groups of required outcomes in this Chapter to the relevant chapters of the HSC Code.

### REQUIRED OUTCOMES

#### 2.2 GENERAL REQUIREMENTS—HSC CODE CHAPTER 1

##### 2.2.1 Verification and maintenance of safety standards

A craft must be subject to independent initial and periodic inspections of sufficient frequency to ensure the required outcomes of the safety solutions are achieved and maintained over time.

##### 2.2.2 Deleted as part of Amendment 1, 2018

##### 2.2.3 Essential infrastructure to be established and maintained

Essential infrastructure such as: places of refuge; communications; weather forecasts; maintenance facilities; and rescue facilities must be adequate for the intended operation and must be maintained as such.

#### 2.3 BUOYANCY, STABILITY AND SUBDIVISION—HSC CODE CHAPTER 2

##### 2.3.1 Buoyancy

A craft must have buoyancy characteristics adequate for safety where the craft is operated in the non-displacement mode or the displacement mode, or when it is stationary or damaged.

NOTE: Buoyancy in the damaged condition is usually provided by subdividing the internal spaces of the vessel by watertight bulkheads.

##### 2.3.2 Integrity of enclosed spaces

Openings in the boundaries of buoyant spaces and spaces that contain essential systems that will fail to function if wet or flooded must be arranged to prevent the entry of water within the space in normal and abnormal conditions of operation.

NOTE: Closing appliances are normally fitted to exposed openings to prevent the entry of water.

##### 2.3.3 Intact stability

A craft must have stability characteristics adequate for safety when the craft is operated in the non-displacement mode or the displacement mode, during the transient mode and when it is stationary.

NOTE: Stability includes the characteristics of longitudinal stability as well as transverse stability.



**2.3.4 Stabilisation systems**

Stabilisation systems, if fitted, must be arranged not to endanger the safety of persons during normal and abnormal conditions of operation or in the event of malfunction.

**2.3.5 Stability in the event of damage**

A damaged craft must have stability characteristics adequate for safety where the craft is in the displacement mode.

**2.3.6 Stability in the event of system malfunction**

Stability characteristics in the non-displacement and transient modes must be adequate to transfer the craft safely to the displacement mode in case of any system malfunction.

**2.4 STRUCTURES—HSC CODE CHAPTER 3****2.4.1 Strength, deformation and watertight integrity**

The structure of a craft must be capable of withstanding the static and dynamic loads, including predicted fatigue loads, which act on the craft under all operating conditions in which the craft is permitted to operate, without such loading resulting in loss of watertightness, structural failure or excessive deformation that could interfere with the safe operation of the craft.

**2.5 ACCOMMODATION AND ESCAPE MEASURES—HSC CODE CHAPTER 4****2.5.1 Protection of persons—wind and sea**

Passenger and crew accommodation must be designed and arranged so as to protect the occupants from unfavourable environmental conditions and to minimise the risk of injury to occupants during normal and abnormal conditions of operation.

**2.5.2 Means of internal communication**

Arrangements must be provided to ensure that crew can communicate to effectively carry out their duties, and persons on the craft can be quickly informed of potential dangers and can be directed to safety in an emergency.

**2.5.3 Protection of persons from excessive accelerations**

The accommodation layout; accommodation linings; furniture; baggage stowage area; and fixing arrangements for cargo and other large masses on a craft must be designed to protect the health and safety of persons from the risks of the accelerations or decelerations associated with the operation of the craft in normal and abnormal conditions of operation.

NOTE: The HSC Code assumes that abnormal conditions include collision at operational speed with a vertical rock that extends 2 m above the waterline.

#### **2.5.4 Protection of essential systems from accelerations**

Fittings and systems essential to the safe operation of the craft must be protected from loads or impacts arising from the movement of cargo, stores, luggage or other masses within a compartment.

#### **2.5.5 Access between crew spaces and passenger spaces**

Easy, safe and quick access must be provided from the operating compartment and crew accommodation to the passenger accommodation.

#### **2.5.6 Escape**

The craft must have a sufficient number of exits from all enclosed spaces that normally could be occupied, suitable to facilitate the quick and unimpeded escape of persons wearing approved lifejackets in emergency conditions, such as collision or fire.

#### **2.5.7 Evacuation**

The craft must be designed so that all persons on board can quickly and safely evacuate the craft into survival craft under all emergency conditions, by day or by night.

NOTE: The HSC Code requires that a craft be safely evacuated under controlled conditions in a time of one third of the least structural fire protection time applied to areas of major fire hazard after subtracting a period of 7 minutes for initial detection and extinguishing action.

#### **2.5.8 Noise levels**

Noise within occupied spaces arising from machinery, propulsion systems or other sources must not exceed levels that would affect the health and safety of persons. In particular, noise levels must not interfere with essential communication within and outside the craft.

### **2.6 DIRECTIONAL CONTROL SYSTEMS—HSC CODE CHAPTER 5**

#### **2.6.1 Control of heading and direction of travel**

The means of directional control must be of suitable design and adequate strength to enable the craft's heading and direction of travel to be effectively controlled and manoeuvred in all conditions for which the craft is intended to be operated.

#### **2.6.2 Reliability of directional control systems**

The probability of total failure of all directional control systems must be very remote when the craft is operating normally; i.e. excluding emergency situations such as grounding, collision or a major fire.

NOTE: HSC Code Clause 5.2.5 states that a failure mode and effect analysis (FMEA) should include the directional control system.

#### **2.6.3 Human / system interface for directional control systems**

The means of directional control must be capable of being used in all foreseeable conditions and speeds, and without undue physical effort. The operator of directional control systems must be located so as to allow that

person to readily observe potential navigational hazards, the craft's heading and the direction of travel.

NOTE: Information on these matters are essential to enable the operator to make appropriate and prompt decisions needed to protect the health and safety of persons.

## **2.7 ANCHORING, TOWING AND BERTHING—HSC CODE CHAPTER 6**

### **2.7.1 Anchoring and berthing**

Anchoring and berthing arrangements must be capable of reliably tethering or securing a craft in all reasonably foreseeable weather conditions for the intended area of operation.

### **2.7.2 Towing of the vessel**

Arrangements must be provided to enable the craft to be towed to safety in the worst intended conditions of operation in the event of it being disabled.

### **2.7.3 Protection of persons—anchoring, towing and berthing**

All arrangements for anchoring, towing and berthing must minimise the risks to persons engaged in these operations and to other persons on the craft.

### **2.7.4 Design and strength of attachments**

All anchoring equipment, towing bits, mooring bollards, fairleads, cleats, and eyebolts must be constructed and attached to the hull so as to perform their function reliably and without breaching the watertight integrity of the craft or endangering personnel.

## **2.8 FIRE SAFETY—HSC CODE CHAPTER 7**

### **2.8.1 Fire properties of materials of construction and fitout**

The materials of construction; linings; furniture and furnishings of a craft; arrangement of the craft and the type of fuel used must be chosen so as to reduce to acceptable levels the risk of fire and the risk of injury or death to persons through heat, smoke or toxic gases.

### **2.8.2 Alternative safe areas for assembly and evacuation**

Category F1 fast craft for which rescue assistance is not readily available (Category B craft within the HSC Code) must provide occupants with an alternative safe area or compartment for assembly and evacuation in the event of a fire within the passenger accommodation.

### **2.8.3 Early detection and extinction**

Arrangements must be provided for the early detection, containment and extinction of any fire in its space of origin.

### **2.8.4 Containment of fire**

Arrangements must be provided to prevent the spread of fire out of spaces of high or moderate fire risk or into spaces essential for the safety of

persons on board the craft (the latter including spaces which provide the means of escape or evacuation or access for fire-fighting).

#### **2.8.5 Protection of essential systems**

The main functions and safety systems of the craft, including propulsion and control, fire detection, alarms, and extinguishing capacity of all spaces outside the affected space must be maintained after a fire has occurred in any one compartment on board.

#### **2.8.6 Fire information**

Fire control information must be provided for the purposes of planning and instruction, and also for locating, using, and maintaining the measures for fire control on the craft.

### **2.9 LIFE-SAVING APPLIANCES AND ARRANGEMENTS—HSC CODE CHAPTER 8**

#### **2.9.1 Rapid evacuation**

Life-saving appliances and arrangements must enable abandonment of the craft into survival craft within a specified evacuation time and under all emergency conditions, by day or by night.

#### **2.9.2 Reliability of evacuation systems**

Life-saving appliances and arrangements must perform reliably and within specifications designed to control risk to within acceptable levels.

NOTE: Redundancy is used to allow for the failure of a proportion of the life-saving appliances through malfunction, damage or loss.

#### **2.9.3 Protection of personnel during evacuation**

The evacuation process must not subject evacuees to risks to health and safety that are unacceptable.

#### **2.9.4 Means to facilitate rapid rescue**

Life-saving appliances must be provided with communication and other equipment to facilitate rapid location and rescue in the event of their use.

Means must be provided to permit the marshalling of survival craft.

Means must be provided to permit the rapid rescue of persons who may have fallen overboard from the craft.

#### **2.9.5 Means to sustain and prolong life of evacuees**

Survival equipment must be arranged and equipped to protect and sustain the health and safety of evacuees, especially if rescue is delayed.

Life-saving equipment must be provided to protect the health and safety of persons who may be in the water, either through misadventure or in the event that dry-shod evacuation is impossible or impractical (e.g. in the event of a person falling overboard, a sudden capsizing, etc.).

**2.9.6 Deleted as part of Amendment 1, 2018****2.9.7 Medical evacuation**

Where the distance to the closest port exceeds two hours, arrangements must be provided to facilitate the medical evacuation by helicopter of individuals on board the craft, without unduly endangering the health and safety of any person engaged in the evacuation, or any other person on board the craft.

**2.10 MACHINERY—HSC CODE CHAPTER 9****2.10.1 Reliability of essential machinery**

Machinery systems, the continued operation of which are essential to the safety of the craft, must maintain an appropriate level of reliability against failure or malfunction in normal and emergency situations.

## NOTES:

1. Redundancy and arrangements for monitoring are methods that go towards satisfying this required outcome.
2. HSC Code Clause 9.1.10 states that a failure mode and effect analysis (FMEA) should include machinery systems and their associated controls.

**2.10.2 Protection of persons—machinery systems**

Machinery systems must be installed and protected so as to reduce danger to persons on board. Particular care must be taken to protect against the risks associated with moving parts, high pressures, loss of watertight integrity, electrocution, the accumulation of explosive or toxic mixtures, and hot surfaces.

**2.10.3 Ability to return to port**

Category F1 fast craft for which rescue assistance is not readily available (Category B craft within the HSC Code) must be capable of maintaining the essential machinery and control so that, in the event of a fire or other damage in any one compartment on board, the craft can return to a port of refuge under its own power.

**2.11 AUXILIARY SYSTEMS—HSC CODE CHAPTER 10****2.11.1 Function of fluid systems**

Fluid systems must be constructed and arranged so as to ensure a safe and adequate flow of fluid at a prescribed flow rate and pressure under all conditions of craft operation.

**2.11.2 Protection of persons—fluid systems**

Auxiliary systems including fittings must be designed, constructed and installed to protect the health and safety of persons on the craft. Particular care must be taken to protect against the risks associated with leakage, high pressures, the accumulation of explosive or toxic mixture, and hot surfaces.

**2.11.3 Containment of fluid**

The probability of failure or leakage in any one fluid system causing damage to the electrical system, a fire, or an explosion hazard must be very remote.

**2.11.4 Watertight integrity**

Auxiliary systems must be designed and constructed to ensure that the watertight integrity of the hull and watertight decks and bulkheads is maintained.

**2.11.5 Draining of internal spaces**

Arrangements must be provided to drain those compartments on the craft where failure to do so could give rise to unacceptable risks for the safety of the craft and those on board. The arrangements for draining compartments must be operable in normal and abnormal conditions of operation.

**2.12 REMOTE CONTROL, ALARM AND SAFETY SYSTEMS—HSC CODE CHAPTER 11****2.12.1 Monitoring of essential systems**

Sufficient instruments and alarms must be provided to enable the operating crew to monitor the status of systems essential to the safety of craft.

**2.12.2 Human / system interface for remote control, alarm and safety systems**

Controls, instruments and alarms essential for navigation or for responding to an emergency must be provided and placed so as to permit the operating crew to correctly perform the duties for which they are responsible without difficulty, fatigue, excessive concentration, or undue delay.

**2.12.3 Control in the event of a malfunction**

Controls and alarms essential for navigation or for responding to an emergency must be arranged so that, in the event of the failure or malfunction of an automatic or remote system, control can still be effected manually or by alternative means.

**2.13 ELECTRICAL INSTALLATIONS—HSC CODE CHAPTER 12****2.13.1 Continuity of electrical power for essential services**

Electrical power essential for the safety of the craft and persons on board must be maintained in normal and, for a finite period, emergency conditions. The probability of the craft and persons on board being at risk through failure of the electrical installation must be very remote.

**2.13.2 Monitoring of electrical systems**

Electrical systems that are essential to the safety of the craft must be provided with means for ensuring continuity of supply in both normal and abnormal conditions of operation.

NOTE: Redundancy of systems, indicators, and alarms are methods frequently used to provide an appropriate level of reliability against failure or malfunction.

### **2.13.3 Protection of personnel—electrical systems**

The electrical system must be installed and protected so as to reduce to a minimum any danger to persons on board. Particular care must be taken to protect against the risks associated with electric shock, fire, and the accumulation of explosive or toxic mixtures.

### **2.13.4 Illumination**

Illumination must be provided throughout those parts of the craft normally accessible to and used by passengers or crew. Emergency illumination must be provided at all locations essential for escape and evacuation, control stations, machinery spaces, and other spaces containing essential machinery or safety equipment.

## **2.14 NAVIGATIONAL EQUIPMENT—HSC CODE CHAPTER 13**

### **2.14.1 Scope of navigational equipment**

Sufficient navigational equipment must be provided to enable the operating crew at their normal operating position to establish and monitor the craft's position, heading, speed, course and the presence and location of navigational hazards.

### **2.14.2 Human / system interface—navigational equipment**

The operating crew must be capable of safely navigating the craft in normal and abnormal conditions of operation without difficulty, fatigue, excessive concentration, or undue time delay.

The user controls for all the navigational equipment must be designed to enable the operators in their normal operating position to adjust the performance of the navigational equipment without reducing their ability to control the vessel.

### **2.14.3 Accuracy and reliability of navigational equipment**

The accuracy of navigation equipment must be sufficient to facilitate navigation in the intended area of operation. The reliability of navigation equipment must be such as to reduce risks associated with its failure, malfunction or improper operation to within acceptable levels.

## **2.15 RADIOCOMMUNICATIONS—HSC CODE CHAPTER 14**

### **2.15.1 Scope of communications equipment**

Means must be provided to permit and maintain radio communications between the craft and other vessels, safety information services and rescue services in both normal and abnormal conditions of operation.

**2.15.2 Reliability of radio communications equipment**

The reliability of radio communications equipment must be such as to reduce risks associated with its failure, malfunction or improper operation to within acceptable levels.

**2.15.3 Human / system interface—communications equipment**

The user controls for all the radio communications equipment must be designed to enable the operators in their normal operating position to adjust the performance of the radio communications equipment without reducing their ability to control the vessel.

**2.15.4 Risk of electromagnetic interference**

Radio communications equipment must be installed in such a way as to avoid harmful electromagnetic interference arising from, or being given to, other equipment

**2.16 OPERATING COMPARTMENT LAYOUT—HSC CODE CHAPTER 15****2.16.1 Human / system interface—operating compartment**

The design and layout of the compartment from which the crew operate the craft must be such as to permit all operating crew members to perform their duties without unreasonable difficulty, fatigue, concentration, or time delay.

**2.16.2 Visual and other information to carry out navigational and safety functions**

The operating station/s must be arranged and equipped to provide the relevant visual and other information needed to enable the officer in charge and any assisting officer to carry out navigational and safety functions effectively and without undue delay.

**2.16.3 Monitoring of risks**

The operating station/s must be arranged and equipped to permit the operating crew to effectively monitor the status of all risks associated with the craft that are within their control and that may have a significant impact on the safety of the craft, persons on board the craft and persons not on board the craft who may be adversely affected by the passage of the craft.

**2.16.4 Protection of persons—operating compartment**

The design and layout of the operating compartment must be such as to minimise the likelihood of injury to operating crew members in both normal and abnormal conditions of operation.

**2.16.5 Internal communications**

Means must be provided to enable the crew to communicate between, and have access to, each other and with other occupants of the craft in both normal and emergency conditions.



**2.17 STABILISATION SYSTEMS—HSC CODE CHAPTER 16****2.17.1 Reliability of stabilisation system**

Any stabilisation system fitted must be designed so that, in the case of failure or malfunctioning of any one of the stabilisation devices or associated equipment, the safety of the craft is maintained.

NOTE: HSC Code Clause 16.2.6 states that the failure mode and effect analysis (FMEA) should include the stabilisation system.

**2.18 HANDLING, CONTROLLABILITY AND PERFORMANCE—HSC CODE CHAPTER 17****2.18.1 Verification of performance**

The performance characteristics of the craft must be systematically established, verified and documented to ensure that information essential for the safe operation of the craft is available to those with responsibility for its safety.

**2.18.2 Verification of essential systems or components**

The effect of a failure or malfunctioning of handling or control devices and other essential main propulsion or auxiliary machinery systems or components must be tested or otherwise assessed to verify that the vessel can be operated safely over the intended range of operational conditions.

NOTE: This process validates the failure mode and effect analysis (FMEA).

**2.19 OPERATIONAL REQUIREMENTS—HSC CODE CHAPTER 18**

**2.19.1 Deleted as part of Amendment 1, 2018**

**2.19.2 Deleted as part of Amendment 1, 2018**

**2.19.3 Deleted as part of Amendment 1, 2018**

**2.19.4 Deleted as part of Amendment 1, 2018**

**2.20 INSPECTION AND MAINTENANCE REQUIREMENTS—HSC CODE CHAPTER 19**

**2.20.1 Deleted as part of Amendment 1, 2018**

**2.20.2 Delegation of responsibility for maintenance**

The persons responsible for maintaining the safety systems on board the craft must be identified.

**2.20.3 Deleted as part of Amendment 1, 2018**

**2.20.4 Deleted as part of Amendment 1, 2018**

## CHAPTER 3 DEEMED-TO-SATISFY SOLUTIONS

### 3.1 COMPLIANCE WITH HSC CODE

The HSC Code shall serve as the “deemed-to-satisfy” solution for all Category F1 Fast Craft, except where specifically modified within this Chapter. When referring to the HSC Code, unless otherwise modified below, clauses that contain the term “shall” shall be interpreted as meaning “shall” for the purposes of a “deemed-to-satisfy” solution.

### 3.2 GENERAL REQUIREMENTS—HSC CODE CHAPTER 1

#### 3.2.1 HSC Code Clause 1.1

Replace first sentence of Clause 1.1 with:

*"This Code shall be applied as a complete set of comprehensive requirements. It contains requirements for the design and construction of Category F1 Australian Fast Craft engaged on domestic voyages, the equipment which should be provided and the conditions for their operation and maintenance."*

#### 3.2.2 HSC Code Clause 1.3.1

Replace Clause 1.3.1 with:

*"This Code applies to Fast Craft Category F1 (craft engaged on domestic voyages)."*

#### 3.2.3 HSC Code Clause 1.3.4.2

Replace Clause 1.3.4.2 with:

*"Cargo craft of 35 m measured length and more which do not proceed in the course of their voyage more than 8 hours at operation speed from a place of refuge when fully laden."*

#### 3.2.4 HSC Code Clause 1.3.6

Delete Clause 1.3.6.

#### 3.2.5 HSC Code Clause 1.4.1

Replace Clause 1.4.1 with:

*"Administration has the same meaning as National Regulator in the NSCV."*

#### 3.2.6 HSC Code Clause 1.4.7

Replace Clause 1.4.7 with:

*"Base port State means the Authority of the jurisdiction in which the base port is located."*

#### 3.2.7 HSC Code Clause 1.4.29

Replace Clause 1.4.29 with:

*“High-speed craft is a fast craft defined as Category F1 under Part F Subsection 1A: General Requirements of this National Standard.”*

**3.2.8 HSC Code Clause 1.4.45**

Replace Clause 1.4.45 with:

*“Organization means the Australian Transport Council (ATC).”*

**3.2.9 HSC Code Clause 1.4.62**

Add new definition:

*“Government, Flag State or State has the same meaning as National Regulator in the NSCV.”*

**3.2.10 HSC Code Clause 1.4.63**

Add new definition:

*“Port State is the Authority in which a port of call is situated in a jurisdiction other than that of the jurisdiction which issued the certificate of survey.”*

**3.2.11 HSC Code Clause 1.8.2**

Replace first 2 lines of Clause 1.8.2 with:

*“Another Authority may, at the request of the issuing Authority, cause a craft to be surveyed and if satisfied that the requirements of the Code are complied with...”*

**3.2.12 HSC Code Clause 1.10**

Delete Clause 1.10.

**3.2.13 HSC Code Clauses 1.11.1 and 1.11.2**

Replace Clause 1.11.1 and 1.11.2 with:

*“Safety solutions that differ from the deemed-to-satisfy solutions contained within the HSC Code may be used provided equivalent safety is maintained; i.e. the vessel meets the required outcomes specified in NSCV Chapter 2 of Part F Subsection 1B to at least the same extent as required by the deemed-to-satisfy solution.”*

**3.2.14 HSC Code Clause 1.13.2**

Replace Clause 1.13.2 with:

*“A design may be produced which cannot comply with the provisions of this [HSC] Code, nor can it comply with the requirements for equivalent solutions based on the required outcomes specified in Chapter 2. In such a case the craft shall comply with the provisions of this Code to the extent that they are applicable and shall additionally comply with the provisions of Part F Section 3: Novel Craft of the NSCV.”*

**3.3 BUOYANCY, STABILITY AND SUBDIVISION—HSC CODE CHAPTER 2****3.3.1 HSC Code Clause 2.2.1**

Add the following to the end of Clause 2.2.1:

*“Reserve buoyancy represented by the volume of the hull above the waterline up to the bulkhead deck at the maximum operational displacement shall not be less than the following:*

- a) Class A: 250 per cent*
- b) Class B: 200 per cent*
- c) Class C: 150 per cent”*

**3.4 STRUCTURES—HSC CODE CHAPTER 3****3.4.1 HSC Code Clause 3.6**

Insert new Clause and note after Clause 3.6 as follows:

*3.7 Category FI Fast Craft must be designed and constructed in accordance with the relevant rules of a recognised organisation. These craft must be maintained in class with a recognised organisation.*

*NOTE This clause does not preclude the National Regulator from accepting a craft not in class as an equivalent solution if the National Regulator is satisfied that it can achieve and maintain the safety system envisaged in the recognised organisation’s rules.*

**3.5 ACCOMMODATION AND ESCAPE MEASURES—HSC CODE CHAPTER 4****3.5.1 HSC Code Clause 4.9**

Insert new Clause and note as follows:

*4.9.5 Craft which carry motor vehicles or other cargo shall be provided with a Cargo Securing Manual complying with SOLAS Regulation VI/5. The Cargo Securing Manual shall be kept on board the craft.*

*NOTE: The accelerations to be resisted may include collision accelerations under Clause 4.3.4 of the HSC Code where the resultant shift of cargo could pose an unacceptable risk to the health and safety of persons or could adversely affect the operation of emergency or other essential systems on the vessel.*

**3.5.2 HSC Code Clause 4.10.1**

Replace Clause 4.10.1 with:

*“The noise level in public spaces and crew accommodation shall be kept as low as possible to enable the public address system to be heard. The average noise level measured at various locations within a*

*space shall not exceed 75 dB(A). The maximum noise level within a space shall not exceed 78 dB(A)."*

### **3.6 ANCHORING, TOWING AND BERTHING—HSC CODE CHAPTER 6**

#### **3.6.1 HSC Code Clause 6.2.1**

Insert new Clause as follows:

*'6.2.1A Anchoring arrangements shall either comply with—*

A1

*a) the anchoring requirements contained in Part C Subsection 7D; or*

*b) the relevant rules of a Classification Society applicable to the intended operation of the craft and any limitations placed on the operation of the craft."*

#### **3.6.2 HSC Code Clause 6.3.3**

Insert new Clause as follows:

*"6.3.4 For the purposes of designing the towing arrangements, the design towing force shall be determined as follows:*

$$F_T = 640 P_T$$

*where*

*F<sub>T</sub> = design towing force in newtons (N)*

*P<sub>T</sub> = power required to tow the craft at 10 knots in kilowatts (kW)"*

### **3.7 LIFE-SAVING APPLIANCES AND ARRANGEMENTS—HSC CODE CHAPTER 8**

#### **3.7.1 HSC Code Clause 8.3.5**

Add the following to the end of Clause 8.3.5:

*"In lieu of lifejackets complying with regulation III/32, Category F1 craft in Class C service may be provided with lifejackets having characteristics, lights and whistles for a conventional Class C vessel in accordance with Part C Subsection 7A (Safety Equipment) of the NSCV. The number of lifejackets shall be as per the HSC Code Clause 8.3.5, except that the requirement for lifejackets for children may be omitted provided the lifejackets are of a multifit type suitable for the use of adults or children."*

#### **3.7.2 HSC Code Clause 8.1.2**

Add the following to the end of Clause 8.1.2:

*"As an alternative to the above, Category F1 craft in Class B or C service may be provided with liferafts of a type complying with the requirements for conventional vessels of Class B or C service respectively contained in Part C Subsection 7A (Safety Equipment) of*

*the NSCV. The capacity of liferafts shall be as per the requirements of the HSC Code.”*

### **3.7.3 HSC Code Clause 8.10.2**

Add the following sentence to the end of Clause 8.10.2:

*“The use of open reversible inflatable liferafts shall be considered on a case-by-case basis in accordance with the requirements for an equivalent solution. Where adopted, open reversible inflatable liferafts shall be considered a local equivalent solution.”*

### **3.7.4 HSC Code Clause 8.11**

Replace Clause 8.11.1 with:

*“Craft operating on voyages having a duration of 2 hours or more between each port of call shall be provided with arrangements for helicopter pick-up as follows:*

- a) Category B craft shall have a helicopter pick-up area complying with a relevant national or international standard.*
- b) Category A craft shall incorporate in the craft operating manual appropriate procedures for helicopter pick-up from a rescue boat or liferaft.”*

*NOTE: A relevant standard for helicopter pick-up areas is the AMSA publication Ship-Helicopter Transfers—Australian code of safe practice.”*

## **3.8 RADIOCOMMUNICATIONS—HSC CODE CHAPTER 14**

### **3.8.1 HSC Code Chapter 14**

Delete entire Chapter 14 and replace with:

*“Class F1 Fast Craft shall comply with the requirements of Part C, Subsection 7B (Communication Equipment) of the National Standard for Commercial Vessels.”*

## **3.9 OPERATIONAL REQUIREMENTS—HSC CODE CHAPTER 18**

### **3.9.1 HSC Code Clause 18.3.7**

Replace Clause 18.3.7 with:

*“The National Regulator under which the craft is to operate shall be satisfied with the training, experience and qualifications of the master and each crew member. Designated crew members shall hold a valid certificate of competency under the NSCV or Marine Orders in addition to a valid type rating certificate appropriately endorsed.”*