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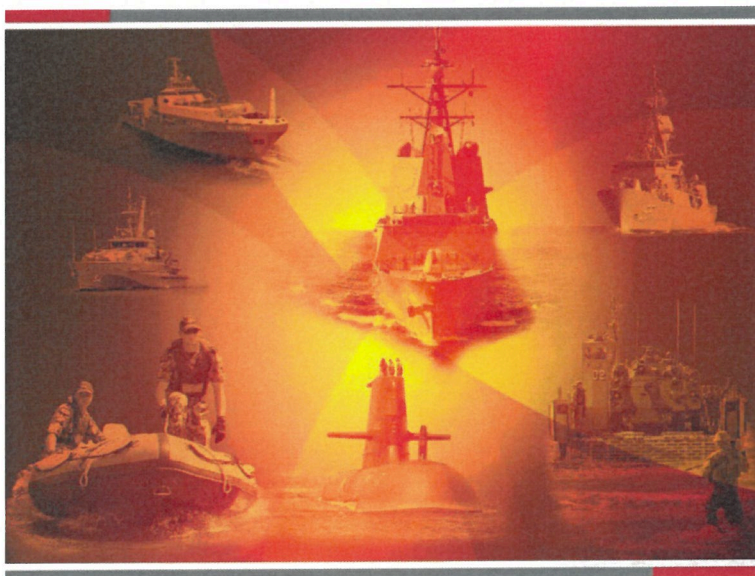
**AUSTRALIAN NAVAL CLASSIFICATION AUTHORITY
MANUAL (VOLUME 2)**

DIVISION 5: REMOTE AND AUTONOMOUS SYSTEMS

SECTION 4: LARGE UNCREWED SURFACE VESSELS

CHAPTER 15: HEALTH FACILITIES

PART 1: ANC RULES



This document is issued for use by Defence and Defence Industry personnel and is effective forthwith.

A handwritten signature in black ink, appearing to read 'CN Dagg'.

CN Dagg, CSC
Assistant Secretary
Australian Naval Classification Authority
Department of Defence
CANBERRA ACT 2600
May 2024 Edition

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ANCA Manual (Volume 2)

Division 5: Remote and Autonomous Systems, Section 4: Large Uncrewed Surface Vessels, Chapter 15: Health Facilities, Part 1: ANC Rules, May 2024 Edition

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¹ <https://www.legislation.gov.au/Series/C1968A00063>

² <https://www.legislation.gov.au/Series/C2004A04868>

³ <https://www.legislation.gov.au/Series/C2004A03712>

⁴ <http://drnet/AssociateSecretary/security/policy/Pages/dspf.aspx>

AUSTRALIAN NAVAL CLASSIFICATION RULES

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⁵ <https://www.defence.gov.au/business-industry/industry-governance/australian-naval-classification-authority/australian-naval-classification-rules>

AMENDMENTS

Proposals for amendments to the ANCA Manual (Volume 2) may be sent to:

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Mail to: anca.correspondence@defence.gov.au

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May 2024	Original issue		May 2024

Division 5: Remote and Autonomous Systems (RAS) Rules
Section 4: Large Uncrewed Surface Vessel (L-USV)
Part 1: ANC Rules

Chapter 15: Health Facilities

Contents

Rule 0.	Goal	2
Rule 1.	General.....	2
Rule 2.	Not Used	3
Rule 3.	Not Used	4
Rule 4.	Not Used	4
Rule 5.	Not Used	4
Rule 6.	Not Used	4
Rule 7.	Not Used	4
Rule 8.	Remote Monitoring.....	4
Rule 9.	Remote Control	4
Rule 10.	Autonomy	5

Australian Naval Classification Rules

Rule 0. Goal

- 0.1 When embarked persons are onboard the Large Uncrewed surface Vessel (L-USV) in accordance with the L-USV Operating and Support Intent (OSI), the Health Facilities of the L-USV shall be designed, constructed, operated and maintained to:
- 0.1.1 Provide primary health care to embarked persons;
 - 0.1.2 Provide first aid to casualties in all Foreseeable Operating Conditions; and
 - 0.1.3 Provide clinical care to casualties up to the health care effect defined in the OSI.

Rule 1. General

Functional Objective

- 1.1 The purpose of this Rule is to outline the principles and framework of Chapter 15 *Health Facilities* and its application.

Scope

- 1.2 Division 2 *General Requirements* Chapter 01 *Core Design Rules* and Chapter 01 *Integrated Platform Survivability* apply to all chapters of the ANC Rules Division 5, as applicable to the design, and therefore in order to meet the Chapter 15 *Health Facilities* goal, the requirements of both this chapter and Division 2 *General Requirements* Chapter 01 *Core Design Rules* shall be met.
- 1.3 Division 3 *Ship Rules* Chapter 15 *Health Facilities* goal applies to all Naval Vessels greater than 24m length overall that carry persons. Therefore, to meet the Chapter 15 *Health Facilities* goal, a L-USV that requires embarked persons shall meet the requirements of both this chapter and the requirements of Division 3 *Ship Rules* Chapter 15 *Health Facilities* as applicable to the design.
- 1.3.1 The Rules listed in this Chapter are based on those in the corresponding Chapter within Division 3 *Ship Rules* and have been adapted for L-USV. When referring to Division 2 or 3, the following terms may be interchanged
- 1.3.1.1 'Ship' as 'L-USV';
 - 1.3.1.2 'Crew' or 'Operator' or 'Embarked Person' as 'End User'; and
 - 1.3.1.3 'Primary, Main or Damage Control Station' as 'Remote Command Unit (RCU)'.
- 1.4 The Health Facilities arrangements of the L-USV shall match its RAS Maturity Level to allow End Users to safely operate the L-USV to achieve missions listed in the OSI.

Applicability

- 1.5 The applicability of each Rule of this Chapter shall be determined from the L-USV OSI.

Performance Requirements

- 1.6 Health facilities shall be designed, constructed, and maintained to:
- 1.6.1 Facilitate prevention and control of infection;

- 1.6.2 Be readily accessible to stretcher cases:
 - 1.6.2.1 To and from the L-USV's main casualty evacuation locations; and
 - 1.6.2.2 Between the on-board health facilities.
- 1.6.3 Be located where risk of loss of the facility is minimised;
- 1.6.4 Be located to optimise the environment for patient treatment and convalescence;
- 1.6.5 Be arranged to enable a smooth workflow of casualties through the facility;
- 1.6.6 Be provided with emergency supply of:
 - 1.6.6.1 Power, including uninterrupted power for critical medical equipment;
 - 1.6.6.2 Lighting;
 - 1.6.6.3 Potable water, where required for clinical care and rehydration;

Note: See Chapter 04 *Engineering Systems* for requirements relating to power, lighting and potable water systems.

- 1.6.7 Be provided with power distribution and electrical protection arrangements to protect patients and sensitive equipment from unintended electrical or magnetic effects; and
- 1.6.8 Be provided with heating, ventilation, and air conditioning to:
 - 1.6.8.1 Maintain a comfortable environment for patient care and equipment storage; and
 - 1.6.8.2 Maintain an environment to facilitate the prevention and control of infection.

Note: See Chapter 04 *Engineering Systems* for requirements relating to heating, ventilation and air conditioning systems.

- 1.6.9 Where medical gases are supplied to a space, be provided with a gas detection system set to alarm locally and at a manned control station in case any medical gases approach unsafe limits in the facility atmosphere.

Note: See Chapter 04 *Engineering Systems* and Chapter 06 *Fire Safety* for requirements related to the storage and distribution of medical gases.

- 1.7 Secure storage, monitoring and access to medicines and medical consumables shall be provided.
- 1.8 Health items not in primary health facility stowages shall be clearly marked and provided with appropriate protection from damage and contamination.
- 1.9 Sufficient medical equipment and stowage space shall be provided to ensure en-route care during casualty transfer between on-board health facilities or in case of evacuation.
- 1.10 Where interoperability of health equipment is specified by the OSI, recognised Naval, national, or international standards consistent across Naval Vessels shall be applied.

Rule 2. Not Used

Rule 3. Not Used

Rule 4. Not Used

Rule 5. Not Used

Rule 6. Not Used

Rule 7. Not Used

Rule 8. Remote Monitoring

Functional Objective

- 8.1 The L-USV shall have Remote Monitoring capabilities to ensure the correct function, as per the OSI, of health facilities.

Scope

- 8.2 This rule is applicable for L-USV with a Remote Monitoring level of RM3 or greater and have a requirement to provide health facilities for embarked persons.

Performance Requirements

- 8.3 The L-USV system with a Remote Monitoring level of RM3 or greater shall have the ability to monitor systems critical to ensuring the correct function, as per the OSI, of health facilities.

Rule 9. Remote Control

Functional Objective

- 9.1 The L-USV shall have Remote Control capabilities to ensure the correct function, as per the OSI, of health facilities.

Scope

- 9.2 This rule is applicable for L-USV with a Remote Control level of RC3 or greater and have a requirement to provide health facilities for embarked persons.

Performance Requirements

- 9.3 The L-USV system with a Remote Control level of RC3 or greater shall have the ability to control systems critical to ensuring the correct function, as per the OSI, of health facilities.

Rule 10. Autonomy

Functional Objective

- 10.1 The L-USV shall have autonomy control and decision-making capabilities to ensure the correct function, as per the OSI, of health facilities.

Scope

- 10.2 This rule is applicable for L-USV with an Autonomy level of A1 or greater and have a requirement to provide health facilities for embarked persons.

Performance Requirements

- 10.3 The L-USV system with an Autonomy level of A1 or greater shall have the ability to autonomously control and sustain systems required for the correct function, as per the OSI, of health facilities.