



Maldives Civil Aviation Authority
Republic of Maldives

Maldivian Civil Aviation Regulations

MCAR 138C - Requirements for Seaplane Platform License

Issue 1.00, 31 May 2023

Foreword

Maldives Civil Aviation Authority, in exercise of the powers conferred on it under Articles 5 and 6 of the Maldives Civil Aviation Authority Act 2/2012 has developed this Regulation.

This Regulation shall be cited as MCAR 138C - Requirements for Seaplane Platform License and shall come in to force on 31st May 2023.

For the Civil Aviation Authority

Hussain Jaleel
Chief Executive

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Chapter 1 – General

1.1 Purpose

The purpose of this regulation is to prescribe minimum requirements for site selection, seaplane platform construction and installation, required resort facilities, rescue equipment at seaplane platform in order to meet the licensing requirements.

1.2 Applicability

This procedure is applicable to seaplane platforms and water runways which doesn't meet the certification criteria for Water Aerodromes prescribed in MCAR 138A – Water Aerodrome Rules.

1.3 Definitions

Definitions of the terms and abbreviations used in this regulation, unless the context requires otherwise, are in MCAR-1 Definitions.

When the following terms are used in this regulation, they have the following meanings:

'Licensee' – means license holder.

'Seaplane Platform' – a platform used for the purpose of embarkation and disembarkation of passengers or cargo by aircraft.

'Water Runway' – A defined area on water, intended for the landing and take-off run of aircraft along its length.

'Seaplane Platform License' – a license issued under this regulation for the purpose of landing, take-off of an aircraft and embarkation and disembarkation of passengers or cargo by aircraft.

'Goods' – Anything taken on an aircraft as personal belongings, baggage or cargo;

'Response Time' is the time between the initial call to the Rescue Services and the first effective intervention at the accident site by a rescue vessel.

'Rapid Response Area' is the area bounded by 300 meter from the end of water runway and 150 meter laterally on each side of water runway.

'Seaplane Handling Agent' – Person employed by the licensee who will be responsible for communication on arrival/departure of the aircraft with the operator, handling of passengers, preparing a passenger manifest and load sheet and providing assistance during emergency evacuation of the aircraft and other related emergency scenarios.

'Nature Reserved Designated Area' – are marine areas that are environmentally protected and preserved as reserves.

'Protected Areas' – Areas located on the atoll ward side near islands, which is protected from large waves by the surrounding reef or lagoon;

Chapter 2 – Application Procedures

2.1 Application Procedures

- 2.1.1 All the applications for licensing of seaplane platforms and water runways shall be forwarded to Maldives Civil Aviation Authority, on application form MCAA/AD/02 available at CAA website. Upon making an application for the grant of a licence, the applicant shall pay all requisite charges in accordance with MCAR-187.
- 2.1.2 When more than one platform is being installed the coordinates for each platform shall be listed in the application form to be included in the license.
- 2.1.3 If there is an intention of moving the platform to any other site due to seasonal requirements, the new position should be notified in the application form.
- 2.1.4 The applicant shall request CAA for an inspection once the platform is installed, safety equipment is obtained and personnel are trained as specified in this Regulation. The cost of travel, accommodation, and food for the CAA inspector(s) shall be borne by the applicant.
- 2.1.5 The applicant shall provide the following when applying for a seaplane platform license:
- a) Application Form MCAA/AD/02
 - b) No objection letter from the Ministry of Tourism.
 - c) No objection letter from Ministry of Defence.
 - d) No objection letter from Ministry of Fisheries, where applicable.
 - e) Approval from Environmental Protection Agency (EPA).
 - f) No objection letter from Island Councils, where applicable.
 - g) No objection letter from Resort owner/Management.
 - h) Training records of Seaplane Handling Agents.
 - i) A risk assessment for the area of operation.
 - j) Aerial Chart depicting the seaplane platforms and water runways.
 - k) If the applicant is not the landlord of the locality then the application shall be forwarded with a no objection letter or agreement copy from the landlord of the proposed locality to use the intended lagoon/reef or protected water.

2.2 Aerial Chart

- 2.2.1 An aerial chart shall be produced and the chart shall show the following:

- a) A clear image of the location showing, reefs, lagoons and island.
- b) Name of the Water Aerodrome/Seaplane Platform and Island name.
- c) Identification of Reference Point with coordinates.
- d) Preferred Landing and take-off directions.
- e) Identification of location of platforms with coordinates.
- f) If mooring, is provided, an identification of the location mooring buoy and its coordinates
- g) Fixed obstacles and hazardous areas in the movement area.
- h) A legend showing the icons used and its meaning.
- i) Symbol showing the direction of north.
- j) Production date.

Note: ARP shall be established where it is initially located or in the geometric center of the area bounded by maximum facilities.

Chapter 3 – Seaplane Platform License

3.1 Issue of a Seaplane Platform License

- 3.1.1 A seaplane platform license is issued when CAA is satisfied that the seaplane platform and water runway is compliant with the requirements contained in this regulation. The seaplane platform license shall be valid for 1 year and extended maximum twice subject to the conditions specified in clause 3.2.

3.2 Extension of a Seaplane Platform License

- 3.2.1 The validity of the seaplane platform license issued by the CAA may be extended by the licensee, twice, for a period of 1 year each time.
- 3.2.2 The seaplane platform license extension referred in clause 3.2.1 can only be issued by an inspector accepted by CAA or licensees' quality system, provided the result of inspection for extension conducted within the preceding 12 months had been found fully satisfactory.
- 3.2.3 Notwithstanding the privilege granted for the licensee in 3.2.1 and 3.2.2, whenever circumstances reveal the existence of a potential risk to aviation safety, the CAA shall carryout the inspection specified above for the purpose of extension.
- 3.2.4 Inspector conducting the inspection for extension shall possess the relevant knowledge and experience on the licensing requirements for seaplane platforms and water runways.
- 3.2.5 Inspection for extension of license shall ensure the following areas:
1. All physical infrastructure meets the requirements of this regulation;
 2. All required markings and safety equipment are properly installed;
 3. Condition of the underwater anchor is not deteriorated;
 4. Training of the handling agents are current and up to-date;
 5. Emergency Exercises has been conducted according to ERP;
 6. The location of landing areas, platforms, buoys are in compliance with the aerial chart.

3.3 Renewal of a Seaplane Platform License

- 3.3.1 When a license is issued, and extended by the operator twice, request shall be made to CAA for renewal of the license at least 30 days before the expiry of the license.

3.4 Amendment of a Seaplane Platform License

- 3.4.1 The licensee may request CAA for the amendment of seaplane platform license when:
- a) there is a change in the ownership or management of the licensee;
 - b) there is a change in the use or operation of the seaplane platform or water runways;
 - c) there is any change on the original conditions of the license.

3.5 Cancellation or Suspension of a Seaplane Platform License

- 3.5.1 CAA may suspend or cancel a seaplane platform license if there are reasonable grounds to believe that:
- a) a condition to which the seaplane platform license was subjected has been breached or not complied with;
 - b) the facilities, operations or maintenance are not up to the standards required in the interests of the safety of air navigation.
- 3.5.2 Before suspending or canceling a seaplane platform license, CAA must give to the licensee a notice that describes the non-compliance with this regulation and invites the holder to submit a corrective action plan acceptable to the CAA.
- 3.5.3 CAA may take into account any reasons the licensee within the time allowed, prior to making a decision about suspension or cancellation.
- 3.5.4 If the licensee wishes to surrender the license, the licensee shall give not less than 30 days, a written notice to the CAA of the date on which the holder will surrender the license.
- 3.5.5 CAA will cancel the seaplane platform license on the date specified by the licensee for surrender of the license.
- 3.5.6 If CAA cancels a seaplane platform license, licensee shall return the seaplane platform license to the CAA immediately.

3.6 Transfer of Seaplane Platform License

- 3.6.1 CAA may give its consent to transfer the seaplane platform license to a transferee when:
- a) the current licensee notifies the CAA in writing, at least 14 days before ceasing to operate the seaplane platform, that the current holder will cease to operate the seaplane platform on the date specified in the notice.
 - b) the current licensee notifies CAA in writing, of the name of the transferee.
 - c) the transferee applies to the CAA in writing, at least 14 days before the current licensee ceases to operate the seaplane platform license to be transferred to the transferee
 - d) the requirements set out in regulation are met in respect of the transferee; and
 - e) the location of the seaplane platform and water runways remains unchanged.
- 3.6.2 If CAA does not consent to the transfer of a seaplane platform license CAA shall notify the transferee, in writing, of its reasons no later than 14 days after making that decision.

3.7 Removal of the Seaplane Platform

- 3.7.1 The seaplane platform and anchoring blocks shall be removed and notified to CAA within six months from the date of cancellation of the license.
- 3.7.2 In case where the licensee wishes to re-start the operations using the same platform, then licensee may request CAA to extend the removal of the platform up to 1 year provided that licensee ensure that the platform condition is not degraded such that it would be detached from its position and the platform does not create any environmental hazards.

Chapter 4 – Operational Requirements

- 4.1 The seaplane platform facilities shall be made available for the use of all AOC holders, with the permission of the licensee. Such permission shall not be withheld.
- 4.2 During emergencies the seaplane platform shall be made available on request from any AOC holders. The licensee shall make available the Seaplane Handling Agent, Transfer Vessel and all Equipment, including emergency services during such operations.
- 4.3 The licensee shall ensure that information on/pertaining to current weather conditions and sea-currents etc at the destination are available prior to departure.
- 4.4 The licensee or the resort shall provide a passenger transfer vessel (PTV) for the purpose of transferring passengers to and from the seaplane platforms.
- 4.5 The PTV shall be at least 200 m away from the seaplane platform and the landing area when the aircraft is ready to land or at take-off and shall not obstruct the water runway.
- 4.6 The licensee shall ensure that instructions are given to the PTV vessel drivers about the direction of water runway, and the movements of the aircraft for taxi and the specific time of its arrivals.
- 4.7 Night Operations and operations under IFR conditions are not permitted at seaplane platforms.

Chapter 5 – General Requirements for Site Selection

- 5.1 When selecting a site for a water runways or installation of seaplane platform, the following shall be taken into consideration:
- a) The location of the proposed water runway or seaplane platform is inside the house reef of the island. If the location is not inside the house reef, whether adequate safety measures are taken to protect the area of operation;
 - b) Depth of sea bed in the proposed area of operation and the size of aircraft intended to be operated;
 - c) Distance of water runway or seaplane platform from the servicing resorts and islands;
 - d) Maritime movements in the location;
 - e) Navigable airspace;
 - f) Effect on the surrounding community;
 - g) Available length of clear and safe water runway strip with respect to the size and type of aircraft intended for use.
 - h) The cross wind operations are kept to a minimum and tailwind operations should be avoided.
 - i) Landing and take-off areas shall be oriented to permit operations into wind.
 - j) Nature Reserved designated marine areas and fishing ground shall not be used.
 - k) Water runway strip be free from large obstructing coral rubbles to a definite depth and located inside protected waters which are safe to use during/take-off by a definite aircraft.

Chapter 6 – Physical Characteristics and Safety Equipment

6.1 Physical Characteristics

6.1.1 Number and orientation of water runways

The number of water runways and their orientation shall be such that, for a large percentage of time as practicable but for not less than 95 percent there is at least one water runway for which the surface wind velocity component at right angles to its longitudinal axis will not preclude the landing or taking off of seaplane that the water aerodrome is intended to serve.

6.1.2 Length of water runways

The length of the water runway to be provided shall be adequate to meet the operational requirements of the critical seaplane for which the runway is intended and shall be not less than the longest length determined by applying the corrections for local conditions to the operations and performance characteristics of the relevant seaplanes.

6.1.3 Width of water runways

The width of the water runway shall be not less than 60 m wherever practicable.

6.1.4 Water depth

The depth of the water measured at low water level in the water runway shall not be less than 1.8 m (6 ft.) or less than 0.3 m below the hull or floats when the seaplane is stationary and loaded to maximum take-off weight.

6.1.5 Water runway strip

A protective buffer shall extend on each side from the edge of the water runway to a distance of not less than 30 m (100 ft.) and on each end of the water runway to a distance of 60 m wherever practicable.

6.1.6 Taxi channels

Taxi channels shall be provided to permit the safe and expeditious handling of traffic.

Wingtip to wingtip clearance for passing seaplanes (dual directional taxi channels) shall be not less than 15 m (50 ft.).

The depth of the water measured at low water level in the taxi channel shall not be less than 1.8 m (6 ft.) or less than 0.3 m below the hull or floats when the seaplane is stationary and loaded to maximum take-off weight.

6.1.7 Mooring areas

Mooring areas shall be provided, whenever necessary, for the mooring of seaplane and to permit the embarkation and disembarkation of passengers, loading and unloading of cargo.

When mooring areas are provided:

- a) The size of the mooring areas shall be adequate to permit expeditious handling of the peak hour traffic.
- b) The depth of water at the mooring area measured at low water level shall be at least that of the corresponding taxi channel.
- c) The mooring area shall be designed in such a manner as to provide a minimum clearance of 15 m (50 ft.) between any part of the seaplane and any object it could come into contact with depending on water level.

6.1.8 Shore facilities

A seaplane platform (fixed or floating), ramp or beach shall be provided to permit the embarking and disembarking of passengers and crew, loading and unloading of cargo and refuelling.

Where a platform is provided it shall:

- a) be designed and maintained in such a way that permits constant use without causing injury to persons or damage to aircraft;
- b) be attached or anchored in a manner that prevents it from shifting position or becoming detached;
- c) have access from the shore that provides for the safe movement of crew and passengers; and
- d) have at least two bull rails or provision for appropriate number of tie-down cleats at each seaplane parking position to secure the seaplane.

When a seaplane is normally secured in a position where any seaplane component overhangs the platform and constitutes a hazard to the movement of crew and passengers, the hazard shall be clearly indicated:

- a) by means of cones; and/ or
- b) by means of hashed red and white markings; and
- c) in a manner easily identifiable to crew and passengers.

Where a ramp or beach is provided it shall be:

- a) built 1.5 times the width of floats of the largest seaplane intended to use the facility;

- b) located in such a manner as to provide a minimum clearance of 1.8 m (6 ft.) between a seaplane wing and any object it could come into contact with; and
- c) constructed with a slope not steeper than 8:1.

6.2 Safety Equipment

- 6.2.1 Seaplane platforms shall provide adequate support and buoyancy for the loads imposed by the proposed operations.

Note: Guidance material for the design of seaplane platform is in Appendix I.

- 6.2.2 In the interest of passenger safety the licensee shall provide the following equipment on the seaplane platform:

- a) 30m life line rope;
- b) 01 life buoy;
- c) An Emergency Box with the following minimum safety equipment. The emergency boxes shall be placed in a location based on the risk assessment of the licensee.
 - 01 Axe;
 - 01 Crow Bar;
 - 01 Tin snipper;
 - 01 Harness cutting tool.
- d) 01 flashing yellow light/beacon (if located outside the house reef and in open water);

Note: The flashing yellow/beacon when provided its height shall not be more than one (1) meter above the level of the platform. The beacon and its fixing strut shall be made out of frangible material. The beacon shall be ON from dusk to dawn.

Chapter 7 – Limitation and Marking of Obstacles

7.1 Obstacle Limitation

- 7.1.2 Approach and Take-off paths shall be free of obstacles and shall comply with the requirements prescribed in MCAR 138B - Water Aerodrome Standards.

7.2 Marking of Obstacles

- 7.2.2 Any obstacle in or out of water, on the water runway or taxiway, that may endanger safety shall be marked with a floating buoy as per MCAR 138B - Water Aerodrome Standards.

Chapter 8 – Emergency Response Planning

8.1 Emergency Response Plan

8.1.2 The licensee shall prepare an Emergency Response Plan (ERP) for the water runway or seaplane platform and shall submit the ERP to CAA. ERP shall include by minimum the following:

- a) A general location chart showing facilities with details of emergency facilities.
- b) Categories of aircraft accidents/incidents and the procedures for dealing with such emergencies
- c) Emergency response facilities
- d) Post-Emergency recovery procedures
- e) Key telephone numbers

8.2 Response time

8.2.1 The operational objective of the rescue service shall be to achieve a response time not exceeding three (03) minutes to the Rapid Response Area in optimum visibility and surface conditions.

8.2.2 The Seaplane Handling Agent(s) shall be in attendance on the transfer vessel at take-off and landing and shall monitor the take-off in case there is an emergency related with the aircraft taking-off. During bad weather conditions, a standby vessel can be deployed near landing and take-off sites of the seaplane.

8.3 Emergency exercises

8.3.1 The licensee shall ensure that an operational emergency exercise that depicts a water rescue scenario is conducted at least once in three (03) years according to the ERP.

8.3.2 Emergency exercise schedules shall be made available to the CAA. The CAA may choose to observe these exercises.

8.4 Training of seaplane handling agents

8.4.1 The licensee shall ensure that the Seaplane Handling Agent shall have undergone CAA approved training (once every two (02) years) to take operational responsibilities and shall be trained for firefighting, emergency rescue scenarios and other safety matters.

Appendix I: Guidance for Design of Seaplane Platforms

1. Fixed Platforms

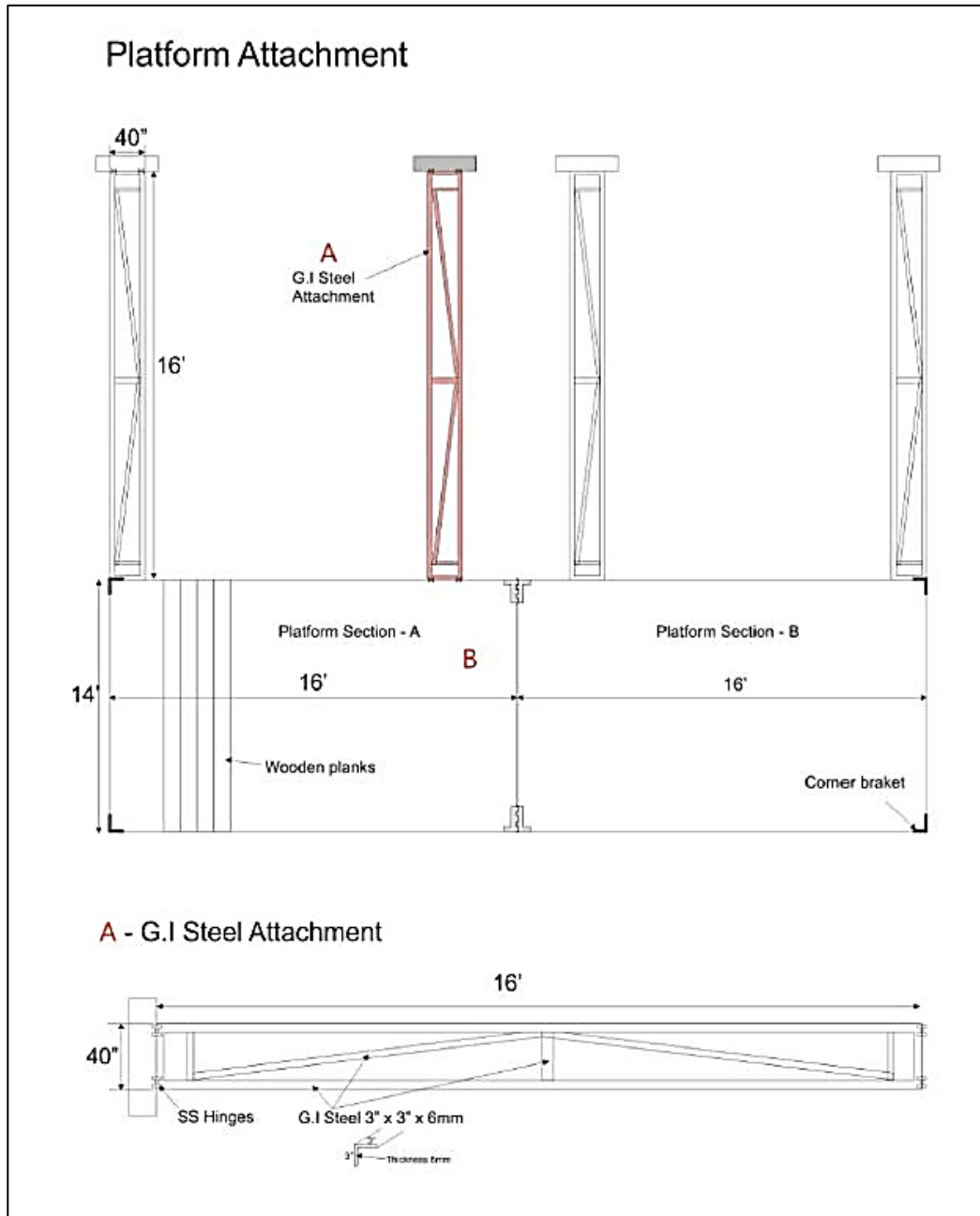


Figure 1

2. Floating Platforms

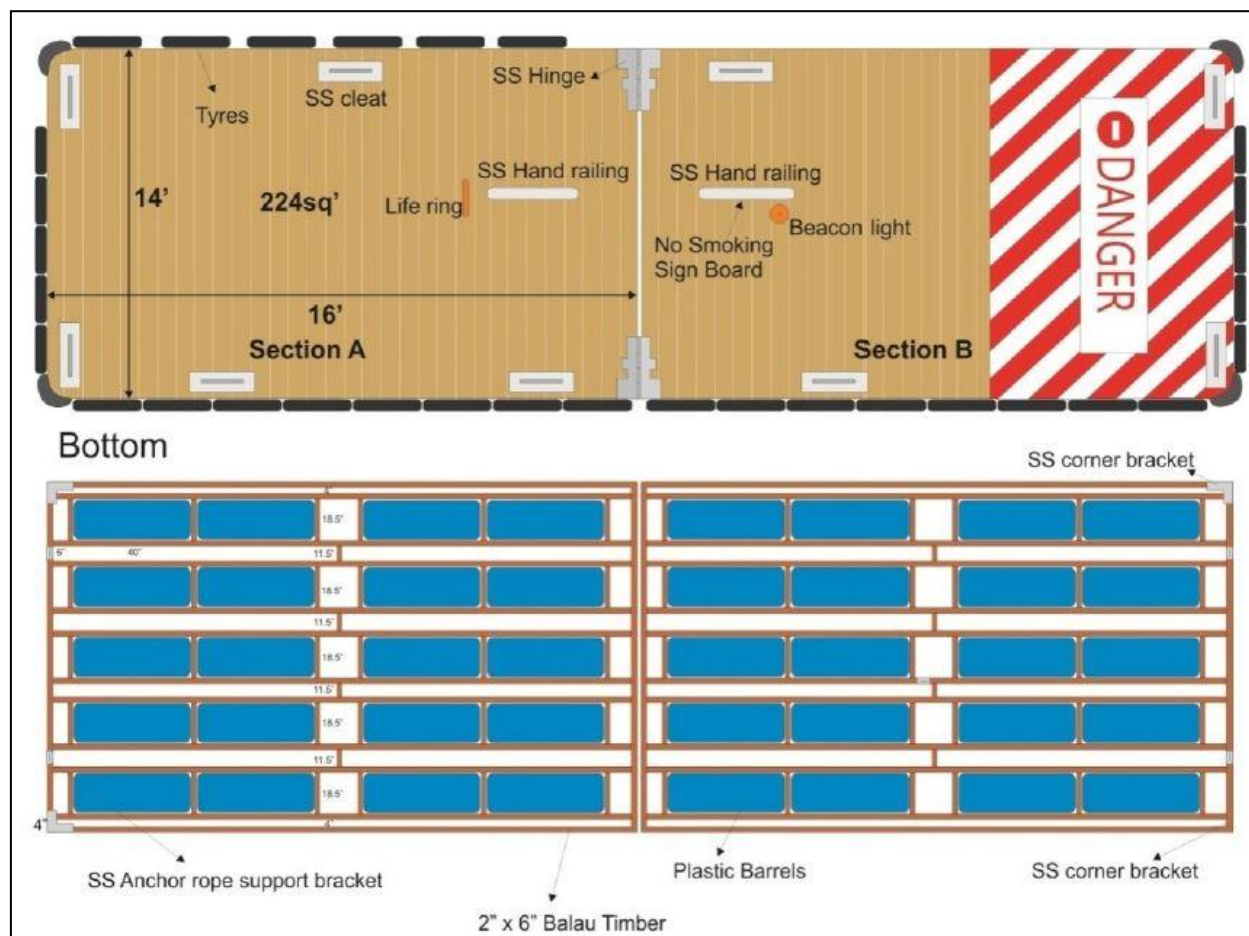


Figure 2

3. Anchoring and mooring system

The typical anchoring system is shown in the figure below. The licensee shall ensure that the anchoring system is capable of handling adverse weather conditions.

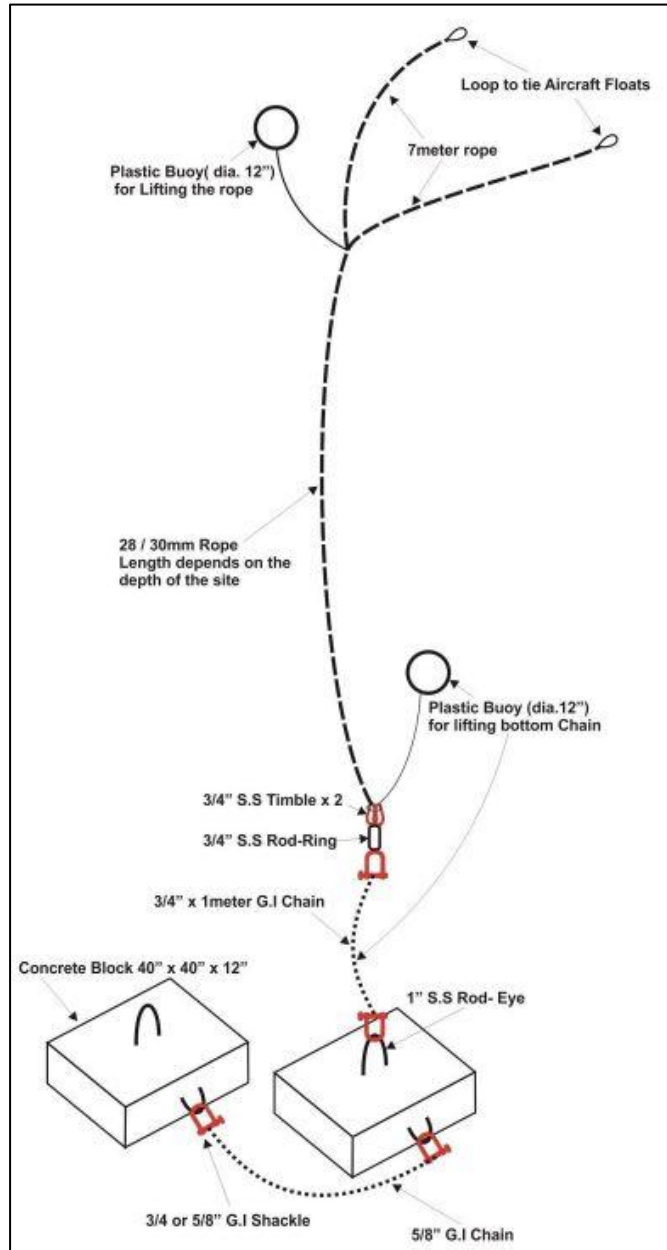


Figure 3

4. Mooring Bollards

Mooring bollards are stainless steel posts installed as a deck-fitting on the platforms which is used to secure seaplanes. Please refer to the dock drawings (Figure 2) for location of the bollards.

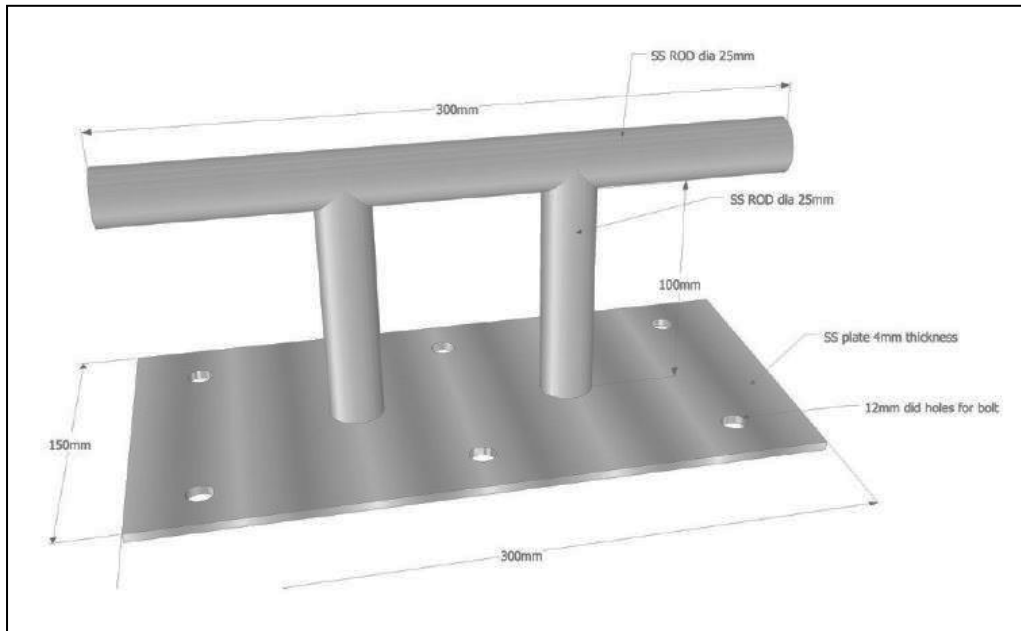


Figure 4

6. Signage and Other Notices

No Smoking Sign

The following signage shall be fixed on the dock that is visibly accessible to passengers and staff.



Figure 5

7. Dock Markings

The dock markings should be painted as shown in the figure below.

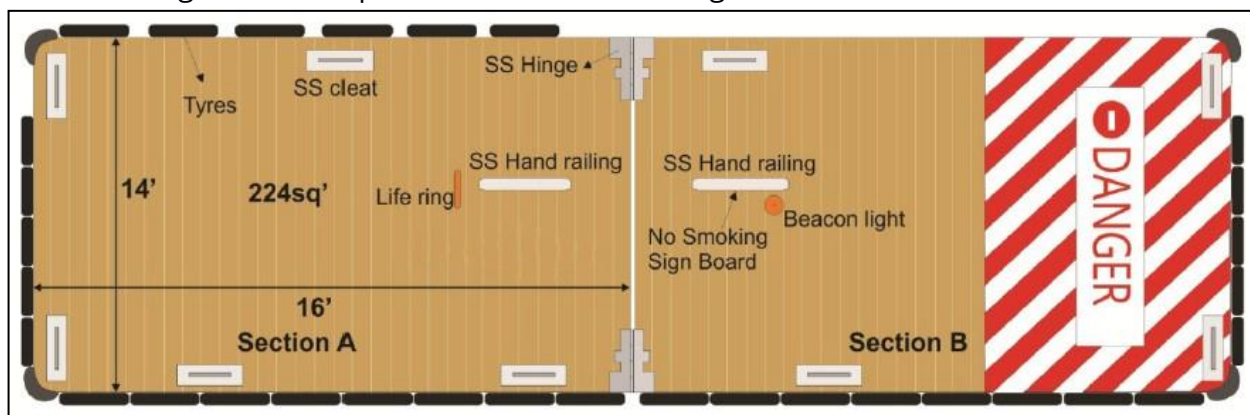


Figure 6

8. Safety Buoy

The quality of the plastic should be inspected monthly for cracks and if cracks are visible the lifebuoy should be replaced with a new one.



Figure 7

Appendix II: Sample Aerial Chart