



INTERNATIONAL CIVIL AVIATION ORGANIZATION

**SECOND MEETING OF WATER AERODROME SMALL WORKING GROUP
(WASWG/2)**

Colombo, Sri Lanka, 29 February to 2 March 2016

Agenda Item 4: Discuss draft water aerodrome standards

REQUIREMENTS FOR WATER AERODROMES

(Presented by Maldives)

SUMMARY

This Working Paper presents the Procedures and Requirements for Licensing of Water Aerodromes and Floating Platforms in the Maldives.

1. INTRODUCTION

1.1 ASC 14-2 lays down the minimum requirements for site selection, floating platform dimensions and safety equipment, size of the water runway, transfer vessel (dhoni/boat) operation criteria, communication, visual aids to navigation, response time for rescue and firefighting, manning levels for rescue and firefighting, training levels for rescue and firefighting, first aid kit and procedures for the removal, of the floating platform.

1.2 This Safety Circular has seen numerous amendments over the past few years but has helped in developing the seaplane operations in the Maldives.

2. DISCUSSION

2.1 This Working Paper discuss on MCAAS's circular on Water Aerodrome Licensing Requirements (ASC 14-2).

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) Note the contents in this paper; and
- b) Discuss any relevant matters as appropriate.



CIVIL AVIATION DEPARTMENT
Republic of Maldives

AIR SAFETY CIRCULAR

ASC 14-2

Procedure and requirements for licensing water
Aerodromes and floating platforms

Amendment 1, 04 February 2009

1. REGULATORY COMPLIANCE

Compliance with this Circular is mandatory for all Maldivian water Aerodrome operators and floating platform operators.

2. RELATED REGULATIONS

This Circular does not relate to any existing regulations.

3. PURPOSE

This Air Safety Circular has been issued to replace the previous regulation MAR C14. ASC 14-2 lays down the minimum requirements for site selection, floating platform construction and installation, rescue and firefighting equipment and facilitation at floating platform in order to meet the licensing requirements.

4. DEFINITIONS

For the purpose of this Circular, the following definitions shall apply:

‘Aeroplane’ A power-driven heavier than air aircraft deriving its lift in flight chiefly from aerodynamic reactions on surfaces which remain fixed under given conditions of flight

‘Turn around’ An aircraft while operating a scheduled or charter flight after having reached its destination and having discharged its passengers, cargo etc. returns to its station from which the flight had earlier originated;

‘Floating platform’ A defined platform anchored inside protected waters licensed under the Maldivian Civil Aviation Regulations for the purpose of embarkation and disembarkation of passengers or cargo by aircrafts;

‘Water aerodrome’ A defined area on land or water (including any buildings installations and equipments) intended to be used either wholly or in part for the arrival, departure and movement of aircraft;

‘Channel’ A defined rectangular area on a water aerodrome, intended for the landing and take-off run of aircraft along its length;

‘Goods’ Anything taken on an aircraft as personal belongings, baggage or cargo;

‘Response time’ is the time between the initial call to the Rescue and Fire Fighting Services (RFFS) and the first effective intervention at the accident site by a rescue and fire fighting vehicle;

‘Resort agent’ Person employed by the Aerodrome Licence holder who will be responsible for handling passengers at the aerodrome and to prepare the load sheet;

The resort agent shall have undergone some in house training to take such responsibilities and shall be trained for firefighting and other safety matters.

‘Nature reserved designated area’ These are marine areas that are environmentally protected and preserved as reserves;

‘Protected areas’ These areas are usually located on the atoll wardside near islands, which is protected from large wave by the surrounding reef or lagoon;

5. APPLICATION FOR WATER AERODROMES

5.1 All the applications for Water Aerodrome and installation of floating platform shall be forwarded to Civil Aviation Department, on application form AD-01 available at CAD website, www.aviainfo.gov.mv. Upon making an application for the grant of a licence, the applicant shall pay a charge in accordance with MCAR-187.

5.2 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 licence.

5.3 If there is an intention of moving the platform to any other site, the position should be notified in the application form.

5.4 With each application, an aerial map of the island shall be provided to this department.

5.5 If the applicant is not the landlord of the locality then the application shall be forwarded with a no objection letter from the land lord of the proposed locality to use the intended lagoon/reef or protected water as a water aerodrome.

5.6 A license will be issued only to one applicant per lagoon.

- 5.7 The applicant shall either be the owner/operator of the resort, a tour operator or the land lord of that locality where it is intended to base the water aerodrome.
- 5.8 The applicant shall bear the cost of travel, accommodation and food for the surveyors appointed by this department to survey the proposed site to use as a water aerodrome and to install a floating platform. And depending on the outcomes of the survey, the applicant shall make a contract with the land lord (if the applicant is not the land lord) before installing the floating platform.
- 5.9 The applicant shall request the Civil Aviation Department for an inspection once the floating platform is installed, safety equipment are obtained and personnel are trained as specified in this Circular for licensing the aerodrome for public/ordinary use. The cost of travel and accommodation shall be provided for the Civil Aviation Department inspector by the applicant.
- 5.10 No water aerodrome or floating platform shall be used for passenger embarking/ disembarking unless otherwise it is licenced by the Civil Aviation Department.

6. GENERAL REQUIREMENTS FOR FLOATING PLATFORM

SITE SELECTION

- 6.1 When selecting a site for water aerodrome and installation of floating platform, the following will be considered:
- (a) if the location of the proposed water aerodrome is inside protected waters
 - (b) depth of sea bed on the proposed water runway and the size of aircraft intended to operation.
 - (c) distance of water aerodrome 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.

NB: location shall be such that cross wind operations are kept to a minimum and downwind operations shall be avoided. In other words the landing and take-off areas should be oriented to permit operations into the wind. Nature Reserved designated marine areas and Fishing Grounds shall not be used for water aerodromes. The strip of water shall be free from large obstructing coral rubbles to a definite depth and located inside protected waters which is safe to use during landing/take-off by a definite aircraft.

7. FLOATING PLATFORM DIMENSIONS AND SAFETY EQUIPMENTS.

- 7.1 Floating platform shall provide adequate support and buoyancy for the loads imposed by embarking/disembarking passengers and their luggage.
- 7.2 The floating platform shall be inspected at regular intervals to check the structural conditions of platform and other safety equipment. Records of such inspections shall be kept and available for inspection by Civil Aviation Department, if needed.

7.3 Each floating platform shall be equipped with the following minimum equipment in the interest of passenger safety and all the equipment except for the life buoy shall be contained in a red box which is fastened to the floating platform. The life buoys shall be easily accessible for use in case of an emergency.

7.4 In the interest of passenger safety the water aerodrome or floating platform certificate/licence holder shall provide an Emergency Box with the following minimum safety equipment in it (see 7.8.1 and 7.8.2 for the location of E/Box);

7.5 Equipment that shall be provided in the E/Box are;

- 01 axe
- 01 crow bar
- 01 tin sniper
- 01 harness cutting tool

7.6 Equipment that shall be placed on the platform are:-

- 30m life line rope
- 02 life buoys
- 01 flashing yellow light/beacon (if located outside the lagoon and in open sea)

7.7 The flashing yellow/beacon when provided shall be installed on the floating platform and its height shall not be one (1) meter from the level of the platform. The beacon and its fixing strut shall be made out of frangible material. The beacon and its fixing strut shall be made out of frangible material. The beacon shall be ON from dusk to dawn.

7.8 Location of emergency boxes shall be as follows:-

7.8.1 In normal circumstances where a floating platform is located adjacent to the island or when located outside the house reef the emergency box shall be placed on the floating platform itself.

7.8.2 Where a platform is located in open water and where it is difficult to maintain/police the equipment on the floating platform the provision of organizing where the emergency box should be located lies with the water aerodrome or floating platform certificate/license holder. (Such scenarios if/when implemented shall be communicated to the CAD and appended in the respective operational/emergency response plan for that location).

8. SIZE OF WATER RUNWAY

The dimensions of the water runway will depend on;

- (a) on the size of the aircraft in operation.
- (b) the performance characteristics of the aircraft
- (c) the clearance of approach path from obstacles.

Any obstacle in or out of water, on the water runway or taxi way, that may endanger safety shall be marked with a floating buoy.

9. OPERATIONAL REQUIREMENTS

The facilities shall be made available for the use of all bonafide AOC holders, with the permission of the licence holder, such permission shall not be withheld unreasonably. The licence holder may charge for the use of the facility and such charges shall not be higher than US\$ 1.00 per 1000 kg or part thereof the MTOW of the aircraft operating.

The licence holder may levy an administrative fee for a Turn Round, not exceeding US\$ 20.00.

The licence holder shall make available the Resort Agent, transfer dhoni and all equipment, including RFFs during such operations.

The licence issued by the Civil Aviation Department will cease to be valid if:

- failure to pay the annual fees for the aerodrome licence, which shall be paid to Civil Aviation Department,
- the contract with the land lord expires or cease to be valid (if applicable),
- any of the mandatory equipment and facilities specified in this Circular lacks.

10. VISUAL GROUND AIDS

All aerodromes shall be equipped with at least one wind direction indicator and it shall be mounted so as to be visible from aircraft in flight or on the movement area and in such a way as to be free from the effects of air disturbances caused by nearby objects.

11. TRANSFER DHONI/BOAT

A mechanised dhoni/boat shall be available for the purpose of transferring passengers to and from the floating platforms to the respective resorts.

A dhoni/boat shall be at least 200 m away from the floating platform and water runway when the aircraft is ready to land or at take-off and shall not obstruct the water runway.

Instructions shall be given to the dhoni/boat captain about the direction of water runway, and the movements of the aircraft for taxi and the specific time of its arrivals.

12. COMMUNICATION

The aerodrome licensee shall ensure that the Pilot and Resort Agent are linked by the telephone or radio for giving flight details in advance allowing the Resort Agent to be prepared to attend the arriving flight. For communication during flight under VFR, it is recommended that each Resort Agent is equipped with suitable radio equipment capable of conducting two-way communication with the aeroplane. For this purpose the Resort Agent shall be suitably trained and authorised by the Department for the purpose.

13. IFR OPERATION

Night Operations and operations under IFR conditions is NOT permitted to water aerodromes.

14. VISUAL AIDS

A Wind Direction Indicator shall be fixed on land at a point that is in the nearest vicinity to the water runway and floating platform to enable the pilot to find the wind direction and have an indication of wind velocity. *For this purpose a Wind Sock* of sufficient size shall be installed to be visible from an aeroplane flying at a height of 200 meters. Details of the size of the Indicator are given at Appendix II for guidance.

15. RESPONSE TIME:

- 15.1 The operational objective of the rescue and fire fighting service shall be to achieve a response time not exceeding three (03) minutes to any point of each operational runway, in optimum visibility and surface conditions.
- 15.2 shall apply to water aerodromes certified within the house reef.
- 15.3 Were the platform is located outside the house ref or away in a lagoon the certificate holder shall determine a reasonable le response time and establish this response time in the emergency Response Plan for that location.
- 15.4 The certificate holder shall prepare an Emergency Response Plan for the particular aerodrome for which the certificate is granted and submit the Emergency Response Plan to CAD.
- 15.5 The Resort Agent shall be trained for firefighting and rescue operations and shall be familiar with the aircraft. The Resort Agent shall be in attendance on the transfer Dhoni at takeoff and landing.

16. MANNING LEVEL

Manning levels will take into accounts the type and number of appliances in use at the floating platform, the method of operation of appliances and equipment and any other relevant details.

17. TRAINING

All personnel involved in rescue and firefighting duties must receive appropriate regular training in the use of equipment provided. This should include an operational exercise at least once per quarter and records of such training shall be made available to whenever an inspector from this department requests.

18. FIRST AID KIT

The medical equipment commensurate with the category of aircraft operated must be readily available at the floating platform and arrangement shall be made to convey to incident scene as quickly as possible. For DHC-6 aircraft, first aid kit shall include all contents specified in Attachment A of this Circular.

19. REMOVAL OF THE FLOATING PLATFORM

The floating platform and the anchoring blocks shall be removed from the location within three months after revocation of the licence.

20. EFFECTIVITY

| This Circular becomes effective on 04 February 2009.

21. CANCELLATION

| This Amendment of Circular cancels the latest ASC 14-2 issued on 18th January 2009 which should be destroyed.



For the Civil Aviation Department
Aminath Solih
DIRECTOR GENERAL

ATTACHMENT A – First Aid Kit (FAK)

The following contents are required for aeroplanes engaged in commercial passengers carrying operations

- Note 1:- For 0-50 pax seats 1xFAK is required.
For 51-150 pax seats 2xFAK is required. For 151-250 pax seats 3xFAK is required.
For more than 250 pax seats 4xFAK is required.
- Note 2:- List of contents is to be firmly attached to the container. Note 3:-Container to be sealed.
- Note 4:- Container to be checked annually-name of inspector to be recorded on the container.
- Note 5:- Date of inspection and next inspection due date to be clearly shown on container.

	ITEM	QTY	REMARKS
1	Bandage white-cotton 3mx8cm (9'x3'')	3	
2	Bandage white-cotton 3mx8cm (9'x2'')	3	
3	Bandage white-cotton 3mx8cm (9'x1'')	3	
4	Bandage – crepe 3mx8cm (9'x3'')	2	
5	Bandage – crepe 3mx8cm (9'x2'')	2	
6	Burns – dressing pads – large	12	
7	Wound dressing pads – large	12	
8	Adhesive elastic tape 3mx8cm (9'x3'')	1 roll	
9	Adhesive elastic tape 3mx8cm (9'x2'')	1 roll	
10	Safety pins – assorted sizes	24	Stainless steel type
11	Scissors – small or medium	1	Stainless steel type
12	Dressings – adhesive – small/medium/large	24	eg. sticking plasters/band Aid
13	Antiseptic fluid (eg: Dettol)	bottle 125ml	
14	Burn ointment	1 tube	
15	An Artificial Plastic Airway	1	
16	Analgesic tablet	100	eg. Cinnarizine or equivalen
17	Anti-emetic-tablet	25	eg. Paracetamol 500mg
18	Nasal de-congestant fluid	1 bottle	eg. Afrin or Sinutex
19	Gastro intestinal antacid tablet	25	eg. Maalox/Actan
20	Anti-diarrhoeal medication	1 bottle or 25 tablets	eg. Ioderamide
21	Ground to air Visual Code booklet	1	For use by survivors
22	Disposable Rubber Gloves	1 pair	
23	Mosquito Repellent cream	1 bottle	eg. Autan or Johnson's OFF
24	Splints	set	Suitable for upper & lower limb use
25	Emollient Eye Drop	1 bottle	
26	Handbook on First Aid		