Unlicensed Landing Sites in Malta

Policy on safe operations

Civil Aviation Directorate (CAD)

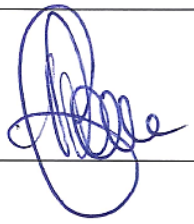
Air Navigation Services & Aerodromes Unit (ANS&AU)

Malta Transport Centre, Pantar Road, Lija, LJA 2021. Malta.

Tel: +356 2555 5608, Fax: +356 2123 9278

info.tm@transport.gov.mt, www.transport.gov.mt

Document Approval

Prepared by:	Stephen J Muscat	Inspector (ANS & ADR)	
Approved by:	Capt. Charles Pace	Director General for Civil Aviation	

0.0 Table of Contents

1.0 Revision History

Version	Date	Change
1	17 Dec 2018	Initial Issue.

2.0 Scope

The scope of this policy document is to provide guidelines and safe practices to operate from an unlicensed aerodrome, a water aerodrome, or from a helicopter landing site, in Malta.

The contents of this document are not exhaustive and may be amended, as necessary, to include (or omit) material deemed to be a requirement to the particular case in question.

Throughout this document, and unless otherwise specified, the word 'aerodrome' shall follow the following ICAO definition:

'A defined area on land or water (including any buildings, installations and equipment) intended to be used either wholly or in part for the arrival, departure and surface movement of aircraft.'

This includes the following:

1. Helicopter pads, strips or sites.
2. Paved strips intended for the use of aircraft and/or helicopters.
3. Grass strips intended for the use of aircraft and/or helicopters.
4. Water aerodromes.

The sites above may be for private use and set up on a permanent or temporary basis.

Whether an unlicensed aerodrome is a helicopter landing site, a grass strip or a hard surface runway, the physical characteristics and operating standards should provide for a safe operational environment that integrates well within the Maltese aviation system. This guidance material should therefore enable those who operate from such unlicensed sites meet the desired safe operating practices.

3.0 Exemption from the requirement for an Aerodrome License

Article 69(1) of SL499.09 *the Air Navigation Order, 1990*, (ANO), stipulates that aerodromes intended for the purpose of public transport of passengers and for the purpose of instruction in flying, must be licensed.

As far as other land aerodromes intended for private use are concerned, these do not require an aerodrome license. The Civil Aviation Directorate (CAD) however still needs to review such applications in order to confirm that appropriate safety procedures are in place.

Presently, in the case of water aerodromes, there are no regulations specifying what requirements have to be in place and, as such, an Aerodrome License cannot be issued. Therefore, by virtue of Article 91 of the ANO, an authorization is given exempting these landing sites from being licensed, granted that the site satisfies safety guidelines.

4.0 Granting of the authorisation to operate

The site operator should perform and document an adequate Risk/Safety Assessment, verifying that the Aerodrome is indeed safe for the type of operation intended. This assessment may need to be made available in the event of an accident or incident occurring.

The '*permission to operate*' mentioned in this document for a land or water aerodrome or, for a helicopter landing site, covers only the physical characteristics of the site and competence of the responsible operator(s), in providing a safe aerodrome to *land and take off* from.

Notwithstanding, due to the unlicensed status of such sites, aircraft operators shall assume responsibility for safe operations at these facilities, in accordance with their respective operations manual and associated risk assessments.

Whilst the CAD accepts all applications to operate an aerodrome; due to the limited airspace, land mass and a relatively high population density of the Maltese Islands, careful consideration must be given to the safety of the general public and the sustainability of civil aviation and any possible limiting effects on operations at Malta International Airport and the Maltese aviation system in general.

The CAD reserves the right to refuse applications.

5.0 Enforcement of the operating conditions

The CAD may, from time to time, carry out inspections of the aerodrome and related facilities and audit the operating processes as required. Minor audit

and inspection findings will have to be resolved within an agreed time period for the continuation of the permission.

If serious safety concerns are found to be present or the operator is operating in direct contravention of the operating conditions, then the *permission to operate* will be terminated with immediate effect.

6.0 Planning Permission

Before any works are initiated, the required development permit/permission shall have to be obtained from the Planning Authority.

7.0 Planning Conditions

Planning permissions are granted subject to operating conditions. These conditions may include restrictions on flight boundaries to reduce effects of environmental issues, such as, noise pollution.

8.0 Safeguarding

Safeguarding is the process whereby the effects of planning permissions are assessed. It assists the planning authority in making the right decisions regarding future development proposals and is therefore advantageous for the aerodrome operator to co-operate with the planning authority.

Note: *When applying for permission to operate an aerodrome in Malta, a map showing the area where the proposed site is to be situated shall be provided. This map shall define the areas which could effect aerodrome operations.*

9.0 Insurance

Depending on the level of activity, the site operator may be required to take out such adequate insurance policies, on standard terms, to cover liabilities that may be incurred in respect of death or bodily injury to persons or damages to property arising from the operation.

10.0 Aeronautical Notification

Aerodrome information, such as its geographical location, operating hours, facilities etc., shall be made available to the relevant Aeronautical Information Service (AIS), for inclusion in the Aerodrome (AD) section of the Aeronautical Information Publication (AIP). Temporary sites shall also be notified by NOTAMs as required.

11.0 Aerodrome Physical Characteristics

The physical characteristics of an unlicensed aerodrome shall, as much as possible, follow those required from a licensed aerodrome and may also depend on its location and space available.

Note: *The licensing criteria can be used as guidance, on which the layout of an unlicensed aerodrome is based.*

12.0 Wind Direction

A wind direction indicator, clearly visible from the air, shall be provided. Locations close to trees or buildings or where the terrain may cause a wrong indication, are to be avoided.

13.0 Obstacles

Any object that could be a hazard to aircraft landing or taking-off shall be removed or, if this cannot be done, conspicuously marked and lighted.

Obstacles which are considered as potentially hazardous to the aerodrome situated outside the airfield boundary and over which the operator cannot exercise control shall be mentioned in the aeronautical information publication (AIP).

14.0 Roads, Buildings and other Structures Outside the Aerodrome Perimeter

When planning the alignment of runways, the location of roads, buildings and other structures falling outside the perimeter shall be taken into consideration to allow for safe approaches and departures.

15.0 Aerodrome Lighting

Operations at unlicensed aerodromes are normally held during daylight hours and as such, will operate without lighting. Sometimes, however, these unlicensed aerodromes request night operations. It is recommended that on aerodromes to be used at night, the runway is provided with threshold, edge and end lighting and also with approach slope guidance.

Note: *If to be installed,*

- *Runway edge lighting shall be placed along, or within 3m of the outside edge of the runway with the lights spaced at intervals of 60 ± 6m.*
- *Threshold and end lighting shall consist of six lights evenly spaced at intervals of not more than 9m across the threshold and runway end respectively.*
- *Obstacles shall be lit with steady red, low-intensity obstruction lights.*

For further clarification contact:

Air Navigation Services & Aerodromes Unit. (ANS&AU)
Civil Aviation Directorate - Transport Malta

16.0 Lighting of Helicopter Landing Sites

ICAO Annex 14, Volume II, paragraphs 5.3.6 & 5.3.8 give the lighting requirements for night operations at helicopter landing sites.

17.0 Flying Operations

The aerodrome is required to have a building in which to store fire fighting and first aid equipment. A movements log shall also be kept and procedures put in place to ensure that pilots always complete this log.

A programme of planned maintenance shall be in place and a maintenance record kept. Visual inspections of the runway shall be conducted daily in particular checking for Foreign Object Debris (FOD). Damaged areas are to be repaired as soon as possible.

Areas directly beyond the runway shall be provided to cater for the eventuality of an overrun.

Wind effect need also to be considered. The possible effect on aerodrome operations causing wind shear in certain wind directions should be investigated.

Birds are a major hazard and procedures are to be in place to control such activity.

18.0 Aircraft Fuelling

Unlicensed aerodromes wishing to store and dispense aviation fuel must produce guidance material and have in place procedures and equipment (in particular fire fighting equipment) to show that the fuelling process can be performed safely.

19.0 Emergency Services

The emergency procedures at an unlicensed aerodrome shall depend on the amount of flying and types of aircraft using the aerodrome.

Emergency instructions shall be available in writing, identifying the actions to be taken in case of an emergency occurring at/or in the vicinity of the aerodrome and shall contain the name of the competent person who shall conduct a risk/safety assessment identifying the hazards and what mitigating actions taken with regards to the operation in question.

The identified competent person shall ensure that adequate first aid and fire-fighting equipment shall be available at the aerodrome and can be transported to the accident/incident site. S/he shall ensure that adequate number of trained personnel are available to deal with such emergencies.

The recommended minimum scale of equipment required for an aerodrome operating Code A type aircraft is:

- A vehicle with cross-country capability of carrying the personnel and equipment specified, either on the vehicle or on a suitable trailer connected to the vehicle.
- A foam extinguisher containing not less than 230 litres of a foam meeting performance Level B with a discharge rate of not less than 230 litres/minute. Complementary fire-fighting media in the form of 45 kg of dry powder.

For H1 helicopter operations from unlicensed landing sites the recommendation is: -

- Minimum amounts of extinguishing agents: Foam meeting performance Level B;

Water 500 litres with a discharge rate foam solution of 250 litres/minute. complementary agent dry chemical powder 23 kg or 45 kg Carbon Dioxide.

Note: *The amount of extinguishing agent required may be obtained from (ICAO Annex 14 Vol I and ICAO Annex 14 Vol II)*

20.0 Water Aerodromes

Following the ICAO definition of an aerodrome, a water aerodrome in Malta is defined as an area of sea used by seaplanes for landing and taking off. The aerodrome may be situated within a harbour, or a naturally sheltered bay, a stretch of sea, or in the open waters along the coastline.

There are various factors and restrictions which have to be considered before deciding on the location of the water aerodrome. Factors such as depth of water, the swell, wave height, wave length and wind waves generated that constitutes wave formation and that have to be safely borne by the operating seaplane. This is particularly important when considering operations intended

for public transport use. Other limiting factors may include the sea vessel traffic, general public leisure activities at sea, and adjacent terrain/structures.

Due to the above, certain operational and/or seasonal limitations may need to be imposed on the operator.

The process to grant *permission to operate* a water aerodrome in Malta consists of two parts:-

1. The preparation of the initial proposal, whereas the applicant provides details of the site and the operation, together with a safety/risk assessment.

   Note: *The geographical coordinates of the reference point, together with the dimensions of the water aerodrome shall be given.*

2. The granting of a permission to operate based on a set number of operating conditions and specific for the particular case. Only to be issued following the successful review of an application by the ANS&AU.

20.1 Applying for permission to operate a water aerodrome

An operator of a sea plane wishing to commence operations from a specific area over water must forward a proposal that:

a. Clearly states the purpose the aerodrome is required for, whether for private or public transport use.
b. Provides details of the aircraft type(s) to be used.
c. Provides a site plan of the proposed area, clearly indicating its location with respect to the coastline.
d. Outlines the operating procedures including safety procedures to be adopted at the aerodrome.

The ANS&AU may require that the applicant provide an aerodrome manual in addition to the above (for further information on how to prepare an Aerodrome Manual, please refer to aerodrome standards advisory document, ASAD-03, *Guidelines on submitting an Aerodrome Manual'*, available via

www.transport.gov.mt); this requirement is based on the scale of operations proposed.

20.2 Operating conditions of a water aerodrome

Given that the application has successfully been reviewed by the CAD, a *permission to operate* the aerodrome will be granted that includes a set number of operating conditions to be followed at all times.

Coordination with Transport Malta's Maritime Directorates is required and their approval is conjoined with CAD's endorsement.

21.0 Helicopter Landing Sites

Helicopter operators may, at times, request to land/take-off from unlicensed sites, whether on sea or land and for various reasons.

These operations are categorised into two groups, both of which are private activities:

i) Permanent operations

Helicopter operations falling under this category usually involve a helipad (on land, a building, a vessel or structure at sea) that may be situated within private property for the personal use of the helicopter owner/operator.

The CAD will nevertheless request to inspect the location the helicopter will be taking off and landing from so as to advise on such matters as obstacle clearance and approach procedures and to determine any possible harmful effects on third parties.

Following the successful review of the application, a *permission to operate* will be granted based on a set number of operating conditions, to be followed at all times.

The ANS&AU may request that a safety assessment is carried out.

CAD has established procedures with certain Marina administrators who solicit transfer of helicopters onto moored motor yachts at particular berths. When such procedures are available, these shall be applicable and adhered to.

ii) Temporary operations

Helicopter operations falling under this category are granted *permission to operate* for a certain length of time. Proposals received

generally include such operations as aerial work for filming purposes and surveying.

In such cases the ANS&AU will assess the landing and taking off areas to advise on obstacle avoidance and review the effect on third parties. A safety assessment may also be requested.

For both the categories above, the ANS&AU may refuse an application to operate if it is considered unsafe.

The physical characteristics required of a licensed helicopter landing site (referred to as a *heliport*) are detailed in ICAO Annex 14, Volume II. Whilst the licensing criteria may not wholly apply to an unlicensed helicopter landing site, applicants wishing to apply for permission to operate an unlicensed helicopter site are advised to use this ICAO document as a guide to deciding the layout of the aerodrome.

21.1 Operating conditions of approved helicopter landing areas

Temporary permissions to operate a helicopter and land/take-off from approved sites shall only be processed provided that they are received by the ANS&AU of CAD, at least **two weeks** prior to the date of operation. The applicant must factor in the possibility that ANS&AU will need to inspect the location and possibly request that a safety review be undertaken.

A number of conditions have to be satisfied before such requests can be approved.

22.0 Land Aerodromes

A land aerodrome is a prepared area situated on the Maltese Islands (not covered by water), which, dependent on the type of operations, is to be used for the taking off and landing of fixed wing aircraft. This area of land shall consist of a 'runway' with ground characteristics sufficient to withstand fixed wing aircraft operations in most weather conditions.

The applicant must provide a detailed proposal that:

1. Includes a site plan of the location and orientation of the aerodrome (in relation to the closest built-up areas);
2. Clearly states the purpose the aerodrome will be used.
3. Defines the operating procedures including safety procedures to be adopted at the aerodrome.
4. Provides details of the aircraft type(s) that will be using the aerodrome.

With regard to (2), if the aerodrome is to be used for public transport or flight training then it must be licensed. The process to license an aerodrome is covered in Aerodrome Standards Advisory Document, ASAD 01, *'Guidance to operators planning to apply for an aerodrome licence'* available via www.transport.gov.mt).

In due course the site must be available to CAD inspectors for a preliminary inspection.

The applicant may be requested to forward a safety assessment together with an operations procedure/manual as necessary.

Following a successful evaluation of the proposal, a *permit to operate* the aerodrome will be granted for an indefinite period of time subject to specific operating conditions that must be followed at all times.

23.0 Runways (Grass Strips)

a) The runway design and length depend on obstacles and the topography. The runway should be of sufficient length and width to cater for the aircraft using the runway.

b) The runway surface condition shall be smooth and well drained. To this end, regular inspections shall be made and the surface kept clear of debris.

c) It is recommended that the grass surface shall not exceed 10cm (4in) in height.

d) Obstacles and bad ground shall be marked and runway markers provided.

e) The runway design shall be such that trees, power lines, high ground or other obstacles do not obstruct the approach / take-off paths. It is recommended that no obstacles greater than 150 ft above the runway elevation within 2,000 m of the runway mid-point be permitted.

f) The orientation of the runway shall, as far as possible, take into consideration the prevailing wind. The possible effect of buildings, trees and other features has also to be considered.

g) The runway slope's lateral and longitudinal gradients, in particular, the lateral gradient, shall be limited to 1:50 (2%) maximum.

h) The orientation of the runway shall, as far as possible, be such so as to avoid overflying of sensitive areas, dwellings, car parks and areas used for public gatherings, during the take-off and approach phases.

24.0 Coordination with Malta Air Traffic Services (MATS)

The airspace above Malta is all controlled and all aircraft operating within national territory will do so under the control of the Malta Air Traffic Services. All operations mentioned in this document shall be coordinated in advance with MATS and adherence to specified conditions and/or procedures is mandatory.

25.0 References

Civil Aviation Act (Cap 232)

Air Navigation Order (S.L.499.09)

Civil Aviation (Aerodrome Licensing) Regulations (S.L.499.29)

ICAO, Annex 14, Volume I and II