

**AIRPORT STANDARDS DIRECTIVE 104
[ASD 104]**

**APPROVAL AND REGISTRATION
NON-LICENSED AERODROMES**



**AIRPORTS STANDARDS DIVISION
DEPARTMENT OF CIVIL AVIATION MALAYSIA**

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INTRODUCTION

1. The Civil Aviation Act 1969 Section 2B defines the duties of the Director General of Civil Aviation, inter-alia, to encourage, and to ensure safe and orderly, development of aerodromes.
2. While the Civil Aviation Regulation 1996, Regulation 97[1] requires aircraft flying for the purpose of public transport to use either a licensed aerodrome, or one belonging to the Government; many other non-public transport aircrafts do or may use non-licensed private aerodromes.
3. Notwithstanding the Civil Aviation Regulation 1996, Regulation 57[3] that places the responsibility for ensuring that a flight can safely be made on the commander of the aircraft; the owners and operators of non-licensed aerodromes, including government aerodromes, should ensure that their aerodrome may be used safely by those pilots wishing and permitted to use it.
4. A non-licensed aerodrome is an aerodrome owned and/or operated by person or persons not in possession of an Aerodrome Operating License issued under section 5A or section 24A of the Civil Aviation Act 1969. A non-licensed aerodrome is not allowed to operate public transport aircraft.
5. Guidance on the standards to be met including on infrastructure, facilities and services to be provided at a non-licensed aerodrome are promulgated under –
 - i. Airport Standards Directive ASD 901 [Airstrips]
 - ii. Airport Standards Directive ASD 902 [Surface-level Heliports]
 - iii. Airport Standards Directive ASD 903 [Elevated Heliports]
 - iv. Airport Standards Directive ASD 904 [Helidecks]

OBJECTIVE

6. This Airport Standards Directive [Directive] is intended to serve guidance to owners and operators of non-licensed aerodromes, including government aerodromes, pertaining to mandatory requirements for the approval of non-licensed airstrips and heliports. It outlines the approval procedures engaged, the subsequent compliance and enforcement and the aerodrome owner and/or operator obligations.
7. The implementation of this Directive will ensure physical features, facilities, equipments and operational procedures at approved non-licensed aerodromes are in compliance with standards specified in the relevant Airport Standards Directives published by the Authority; that make certain intended aircraft operations at these aerodromes could be conducted safely.

RULES

8. The Authority must be satisfied that a non-licensed aerodrome conforms with the relevant Airport Standards Directives and that the aerodrome will offer a safe environment for the operation of the aircrafts that it is intended for and that the aerodrome owner and/or operator has the necessary competence to operate and maintain the aerodrome, before approval is issued.
9. A non-licensed aerodrome shall achieve compliance with the standards published by the Authority, and conforms to airspace and flight operation requirements deemed essential for safe air navigation at the aerodrome. Standards pertaining to non-licensed aerodromes are published under Airport Standards Directives ASD 901, ASD 902, ASD 903 and ASD 904.
10. Approved non-licensed aerodromes are considered able to support safe air navigation. These aerodromes are recommended to be published in the AIP.
11. An approved non-licensed aerodrome, however, is not allowed to operate public transport operations.
12. A non-licensed aerodrome that does not obtain approval from the Authority is considered as not able to meet minimum safety requirements for air navigation. These aerodromes are not published, or shall be removed, from the AIP.
13. The approval issued by the Authority, however, does not take into consideration other legislation or regulations covering land-use and environmental protection that may require authorization from other relevant State entities.

APPLICABILITY

14. This Directive is applicable and prescribes rules governing the approval for aerodromes, in any state of Malaysia, not intended for use by public transport aircraft.
15. This Directive is also applicable for the approval of temporary landing areas for the purpose of air carnivals or other aviation sports activities.

AUTHORITY

16. The Authority for the approval of non-licensed aerodromes is the Director General of Civil Aviation.

APPROVAL PROCESS

17. The approval process for non-licensed aerodrome shall comprise:

- [i] Application.
- [ii] Approval to Build.
- [iii] Compliance Confirmation.
- [iv] Approval to Operate.
- [v] Registration and Publication.
- [vi] Periodic Verification.

APPLICATION

18. An intending applicant should in his own interest consult the Authority before committing himself to expenditure in developing or equipping an aerodrome.

19. Application for approval of a non-licensed aerodrome shall be made to the Authority at the following address:

Department of Civil Aviation
Airport Standards Division
Level 1 Block Podium B 4G4 Precinct 4
Federal Government Administration Offices
62570 Putrajaya.
Phone: 03-88714000
Fax : 03-88714335

20. The applicant shall submit completed Application Form ASD104/Reg/APL1 and other documentation as detailed in the Application Form [**Appendix I**].

21. The Authority may require other documentation to facilitate the assessment of application.

22. The interval between application and assessment by the Authority may depend upon matters within the control of the applicant and no undertaking can be given that the Authority will be able to reach a decision within a particular time period.

APPROVAL TO BUILD

17. Assessment of application shall be based on information provided by applicant in the form ASD104/Reg/APL1; and the various documentations, plans and other information submitted together with the application.
18. The assessment shall examine -
 - [i] proposed physical features, infrastructure and facilities against the relevant Airport Standards Directives and site suitability in relation to development, terrain and obstacles in vicinity of aerodrome site;
 - [ii] proximity of aerodromes to other aerodromes or landing sites including military aerodromes, controlled airspace and any other airspace restrictions; and
 - [iii] suitability of aircraft type and flight operations procedure proposed for the aerodrome.
19. Application that meets compliance with the relevant published standards, airspace and flight operation conditions required by the Authority will be issued an Approval to Build.
20. Where the Authority concludes that the result of this assessment is negative, the applicant shall be notified accordingly. The Authority will state the reason[s], either –
 - [i] proposed physical features, infrastructure and facilities is inadequate and do not satisfactorily comply to the relevant Airport Standards Directives; or
 - [ii] the aerodrome site, in relation to the airspace and other aviation activities in vicinity, is not suitable; or
 - [iii] the aviation activities and flight operations procedures suggested are not appropriate; or
 - [iv] other reason[s] indicating the proposed aerodrome do not make satisfactory provisions for safety of aircraft operations.
21. The applicant may appeal to Authority and submit revise proposal and/or additional documentation.
22. Approval to Build issued by the Authority, however, does not take into consideration land-use, environmental protection issues and other relevant approval[s] that the applicant may require to obtain from other Authorities prior to the construction and operation of the aerodrome.

COMPLIANCE CONFIRMATION

23. The applicant shall notify the Authority on the completion of works for a physical inspection to be conducted by the Authority.
24. The inspection is undertaken for the purpose of verifying the information provided in the ASD104/Reg/APL1; and to physically check and assess the aerodrome infrastructure, facilities and equipments to ensure that they comply with the relevant Airport Standards Directives.
25. Where the assessment is satisfactory, the Authority will issue a Compliance Confirmation which indicates that the aerodrome has met compliance to the standards published in the relevant Airport Standards Directive[s].
26. The Compliance Confirmation may state the Authority requirements on -
 - [i] additional physical features, infrastructure and facilities required to be provided at the aerodrome;
 - [ii] aviation activities allowed including type of aircraft and flight operations requirements; and
 - [iii] airspace allocated for aeronautical activities including air traffic management and coordination procedures.
27. Where the assessment is not satisfactory, the Authority will notify the applicant on additional steps that must be taken to rectify and/or clarify the Authority's observations and/or provide additional documentation required by the Authority.
28. The applicant is required to notify the Authority the completion of rectification works required by the Authority and submit any clarification and/or documentation required by the Authority. The Authority may conduct a follow-up inspection on the aerodrome.
29. Where the Authority is satisfied with the required rectification works, clarification and/or documentation, a Compliance Confirmation will be issued.
30. Notwithstanding the above, a Compliance Confirmation shall not be construed as an approval to operate the aerodrome.

APPROVAL TO OPERATE

31. An Approval to Operate is issued where the Authority is satisfied that the aerodrome has meet minimum requirements to support safe air navigation.
 - [i] the physical features, infrastructure and facilities provided is adequate and in compliance to the relevant Airport Standards Directive[s];
 - [ii] the aerodrome site, in relation to the airspace and other aviation activities in vicinity, is suitable to ensure safe operations at and in it's vicinity;
 - [iii] the aviation activities at the aerodrome and flight operations procedures are appropriate; and
 - [iv] applicant competency and operational documentation.
32. While assessment on physical characteristics, airspace and flight operations issues may have been conducted in the earlier stages, the applicant's competency will be assessed prior to the issue of Approval to Operate.
33. The Aerodrome Manual is a fundamental requirement for the issue of Approval to Operate. The information presented in the Aerodrome Manual should demonstrate that the aerodrome conforms to standards prescribed in the relevant Airport Standards Directive and that there are no apparent shortcomings that would adversely the safety of aircraft operations.
34. From the contents of the Aerodrome Manual, the Authority will be able to assess the suitability of the aerodrome for proposed aircraft operations and to judge the aerodrome owner and/or operator fitness to ensure safe air navigation operations at the aerodrome.
35. The aerodrome owner and/or operator shall also demonstrate availability of adequate number of qualified and skilled personnel to perform all critical activities for aerodrome operations and maintenance.
36. The Authority may require the applicant to conduct a proving flight and submit the proving flight report to the Authority.
37. Where the Authority is satisfied with the Aerodrome Manual, operational staff competency and proving flight report, an Approval to Operate will be issued by the Authority.

REGISTRATION

38. A non-licensed aerodrome which has successfully obtained Approval to Operate will be registered in the Aerodrome Directory.
39. Registered non-licensed aerodromes will be recommended to be published in the Aeronautical Information Publication [AIP].
40. Registered non-licensed aerodromes are to ensure continued compliance to the relevant Airport Standards Directive[s] and, other conditions and requirements detailed by the Authority. Failure to meet this obligation will result in cancellation of registration and removal from the AIP.

PERIODIC VERIFICATION

41. Owner or operator of a registered non-licensed aerodrome shall submit mandatory annual reports to the Authority on the operational status of the aerodrome; and notify the Authority regarding any changes to the physical features, infrastructure and facilities. The report format is as in **Appendix II**.
42. Changes to operational status, physical features, infrastructure and facilities will be notified to the Aeronautical Information Services for amendment of the AIP.
43. The Authority may conduct inspection on registered non-licensed aerodromes to ensure these aerodromes continue to comply with standards prescribed in Airport Standards Directive[s] and, other conditions and requirements attached to the approval issued by the Authority.

OWNER / OPERATOR OBLIGATION

44. The grant of approval by the Authority obliges the owner and/or operator of aerodrome to ensure the safety, regularity and efficiency of operations at the aerodrome.
45. The owner and/or operator of aerodrome shall ensure continued compliance with the relevant Airport Standard Directive[s] and with any conditions as required by the Authority.
46. The owner and/or operator of aerodrome shall ensure adequate number of qualified and skilled personnel to perform all critical activities for aerodrome operations and maintenance
47. Subject to any Airport Standards Directive[s] that the Authority may issue, the aerodrome operator shall operate and maintain the aerodrome in accordance with the procedures set out in the Aerodrome Manual. The owner and/or operator of aerodrome should ensure proper and efficient maintenance of the aerodrome facilities.

48. The owner and/or operator of aerodrome shall allow access to personnel authorised by the Authority to perform regulatory functions to any part of the aerodrome or any aerodrome facility, including equipment, records, documents and operator personnel.
49. The Appendices to this Directive shall be taken, construed, read and be part of this Directive.

DATO' IR. KOK SOO CHON
Director General
Department of Civil Aviation
Malaysia

Dated: 22 September 2005

APPENDIX I
APPLICATION FORM

ASD104/Reg/APL1

JABATAN PENERBANGAN AWAM MALAYSIA
[DEPARTMENT OF CIVIL AVIATION MALAYSIA]

PERMOHONAN KELULUSAN/PENDAFTARAN AERODROME
[APPLICATION FOR APPROVAL/REGISTRATION OF AERODROME]

1. MAKLUMAT PEMOHON
[PARTICULARS OF APPLICANT]

1.1 Name * :

1.2 Address :

.....

..... Postal Code :

1.3 Designation :

1.4 Telephone : Facsimile :

1.5 Is the Applicant the Owner of the Aerodrome Site? YES / NO

If **NO**, provide:

- [i] Details of Rights Held in Relation to the Site;
- [ii] The period and/or dates Applicant holds these rights; and
- [iii] Name and address of the owner of the site and written evidence to show permission has been obtained for the site to be used by the applicant as an aerodrome.

Note:

[*] Name of person[s], company or club designated as Aerodrome Operator and that will be responsible for giving effect to the conditions of the approval/registration of the aerodrome.

2. MAKLUMAT TAPAK CADANGAN AERODROME
[PARTICULARS OF PROPOSED AERODROME SITE]

2.1 Name of Aerodrome :

2.2 State : District :

Lot No.: Plan No.:

2.3 Geographical Coordinates of the Aerodrome Reference Point [WGS-84] Latitude
Longitude

2.4 Elevation of Aerodrome [meters] :

2.5 **Position of aerodrome with reference to nearest town or populous area :**

[i] Name of town :

[ii] Distance from town :

[iii] Bearing from town :

2.6 **Position of aerodrome with reference to nearest other aerodrome :**

[i] Name of aerodrome :

[ii] Distance from aerodrome :

[iii] Bearing from aerodrome :

2.7 **Is there any public or private right of way exists on or near the proposed aerodrome? YES / NO**

[i] If **YES**, would the use of the site as an aerodrome interfere with such rights? **YES / NO**

[ii] If there is a risk of interference with private rights, please give details of any agreement made with the holder of the rights for use of the site as an aerodrome.

3. CADANGAN OPERASI AERODROME
[PROPOSED AERODROME OPERATIONS]

3.1 **Is the aerodrome to be used by Public Transport Aircraft? YES / NO**

3.2 **Is the aerodrome to be used at night? YES / NO**

3.3 **Type of aircraft to be operated at the aerodrome:**
[aircraft specification to be submitted together with this application]

[a] **Aeroplanes:**

[i]

[ii]

[iii]

[b] **Helicopters:**

[i]

[ii]

[iii]

[c] **Microlights:**

[d] **Others:**

3.4 **State heaviest aircraft in reference to item 3.3:**

[i] Aircraft type :

[ii] Maximum Total Weight Authorized [kilograms] :

3.5 **Expected number of movements per calendar month of heaviest aircraft type.** per month

[One movement is one take-off or one landing]

3.6 **Is there an appointed Duty Officer?** YES / NO

If YES, state whether the Duty Officer

[i] is competent to determine safe use of the aerodrome? YES / NO

[ii] is responsible for supervising aircraft movement? YES / NO

[iii] is responsible for pilot-briefing? YES / NO

[iv] is responsible with Air Traffic Services authorities? YES / NO

[v] is responsible for controlling spectators? YES / NO

[vi] State Duty Officer's aviation qualification, if any:

If NO, state arrangement made to provide qualified personnel to manage aviation events at the aerodrome?

.....
.....

3.7 **Is aircraft fuelling expected to take place at the aerodrome?** YES / NO

If YES, state

[i] Type of aviation fuel:

[ii] Quantity stored [liters]:

[iii] Location of storage:

[iv] Method of storage:

[v] Are there suitable fire extinguishers positioned at fuel storage area? YES / NO

4. CADANGAN INFRASTRUKTUR FISIKAL [PROPOSED PHYSICAL INFRASTRUCTURE]

4.1 **Runway Characteristics:**

[i] Runway length [meters]:

[ii] Runway width [meters]:

[iii] Runway Strip dimension [meters]:

[iv] Runway surface type:

For heliports:

[i] Heliport Type: **SURFACE-LEVEL / ELEVATED / HELIDECK**

[ii] FATO dimension [meters]:

[iii] TLOF dimension [meters]:

[iv] Safety Area dimension [meters]:

4.2 **Landing Area Markings:**

- [i] Designation YES / NO
- [ii] Runway Threshold YES / NO
- [iii] Runway centre line YES / NO
- [iv] Runway side stripe YES / NO
- [iii] Runway boundary markings or markers YES / NO
- [iv] Boundary Markers Type:
- [v] Others [specify]:

For heliports:

- [i] Heliport Identification Marking YES / NO
- [ii] FATO Marking YES / NO
- [iii] TLOF Marking YES / NO
- [iv] Others [specify]:

4.3 **Ground Signals and Visual aids:**

- [i] Windssock YES / NO
- [ii] Landing T YES / NO
- [iii] Signal Lamps YES / NO
- [iv] Others [specify]:

4.4 **Lightings:** [For aerodrome used at night only]

- [i] Aerodrome beacon YES / NO
- [ii] Runway Edge YES / NO
- [iii] Runway Threshold YES / NO
- [iv] Runway End YES / NO
- [v] Others [specify]:

For heliports:

- [i] Aerodrome beacon YES / NO
- [ii] FATO YES / NO
- [iii] TLOF YES / NO
- [iv] Others [specify]:

4.5 **Obstacle marking and control**

[a] Slope

[i] Approach Slope: %

[ii] Take-off Slope: %

[iii] Transitional Slope: %

[b] Obstacles within aerodrome boundary:

[i] Have the obstacles been identified? YES / NO

[c] Obstacle outside aerodrome boundary:

[i] Have the obstacles been identified? YES / NO

[ii] Have arrangements made with appropriate authority or persons to remove or mark identified obstacles? YES / NO

[d] Is a safeguarding map being deposited with the local authorities to show the height above which new construction in the vicinity of the aerodrome may interfere with its use? YES / NO

4.6 **Is there a designated aircraft parking area?** YES / NO

If YES,

[i] Are there barriers and notices warning against unauthorized entry? YES / NO

[ii] Are there separation distance between aircraft parking area and public areas or car parks? YES / NO

[iii] Are there suitable fire extinguishers positioned where aircraft engines are started? YES / NO

5. CADANGAN PERKHIDMATAN BOMBA DAN PENYELAMAT
[PROPOSED FIRE AND RESCUE SERVICES]

5.1 **Fire and Rescue Services:**

[a] Fire and Rescue Vehicle

[i] Type : **RIT / ULFT / LFT**

[ii] Numbers of Vehicle :

[iii] Number of trained Personnel :

[b] Foam Extinguisher

[i] Performance level : **A / B**

[ii] Quantity [liters] :

[iii] Discharge rate [liters per minute] :

[iv] Type of Complementary Agent : **Dry Powder / CO2**

[v] Quantity of Complementary Agent [kilograms]:

5.2 **Medical Services:**

[a] Medical First Aid

[i] List items available in the first aid pack

.....
.....

[ii] Number of trained Personnel :

[b] Ambulance Services

[i] Is there arrangement made with Local Authority for such services? **YES / NO**

[ii] If YES, what is the respond time to an emergency call [minutes]:

[iii] If NO, has arrangement made to have on-site services? **YES / NO**

6. CADANGAN PENGURUSAN TRAFIK UDARA
[PROPOSED AIR TRAFFIC MANAGEMENT]

6.1 **Airspace required around the aerodrome:**

[i] Vertical Limits [feet] :

[ii] Lateral Limit :
[In reference to ARP]

6.2 **Is there communication facilities provided for coordination with Air Traffic Services authorities?** **YES / NO**

Describe arrangement made with Air Traffic Services authorities pertaining to coordination of aviation activities at aerodrome with other aviation activities in neighboring airspace .

.....
.....
.....

6.3 **Is there arrangement to notify Air Traffic Services authorities and aircraft operators intending to use the aerodrome, pertaining to condition and/or activities at the aerodrome?** **YES / NO**

7. KELULUSAN PENGUASA TEMPATAN
[LOCAL AUTHORITIES APPROVAL]

7.1 Before submitting this application, the Local Authorities, should be consulted and, their approval obtained.

- [i] Have approval obtained from Local Authorities? YES / NO
- [ii] If YES, provide certified photocopy of the approval/s obtained?
- [iii] Are there conditions or restrictions attached to the approval? YES / NO
If YES, [describe]
.....

8. MAKLUMAT TAMBAHAN
[ADDITIONAL INFORMATION]

8.1 Applicant shall submit three [3] copies of the following:

- [i] Key Plan, Location Plan and Site Plan.
- [ii] Layout Plan.
- [iii] Profile Plan for Approach, Take-off and Transition area.
- [iv] Runway or Heliport marking scheme.
- [v] Schematic Plan for Electrical Installation.

9. PENGESAHAN
[CERTIFICATION]

I hereby certify that the foregoing information is correct in every respect and no relevant information has been withheld.

.....
[Signature of Applicant]

.....
[Company stamp]

Name :

Date :

MAKLMUMAN
[INFORMATION]

- [i] Before approval is granted, the Department of Civil Aviation will require to be satisfied that the physical conditions of the aerodrome and its environs are acceptable, that the scale of equipment and services are adequate, and that the aerodrome is organized, staffed and other arrangements sufficient to ensure the safe operations of the aerodrome. The requirements are set out in detail in the Department's publication ASD104 [Approval and Registration of Non-Licensed Aerodrome].
- [ii] Completed application form shall be submitted to the Department of Civil Aviation at the following address:

Department of Civil Aviation
Airport Standards Division
Level 1 Block Podium B 4G4 Percinct 4
Federal Government Administration Offices
62570 Putrajaya.

**APPENDIX II
OWNER/OPERATOR ANNUAL REPORT FORMAT**

ASD104/Reg/REP

AERODROME SAFETY ANNUAL REPORT

[annual report to be submitted by owner/operator]

1. CERTIFICATION

I hereby certify that -

[i] I have carried out a safety inspection of..... for the yearon
[name of aerodrome]
.....
[date of inspection]

[ii] the aerodrome physical features, infrastructure and facilities at meet
[name of aerodrome]
the applicable safety requirements set by the Department of Civil Aviation Malaysia in the
relevant Airport Standards Directive[s];

[iii] all the conditions pertaining to operations of the aerodrome as detailed by the Department of
Civil Aviation in the approval issued for are complied with;
[name of aerodrome]

[iv] the published aerodrome data and information pertaining to.....in the
[name of aerodrome]
Aerodrome Manual and Aeronautical Information Publication are correct; and

[v] the information provided in this report is correct in every respect and no relevant
information has been withheld.

.....
[Signature of Owner/Operator of Aerodrome]

Name :

Date :

2. THE YEAR IN BRIEF

[Briefly outline the significant events at the aerodrome during the year]

Development works
Major Maintenance
Accidents or Incidents
Aviation activity at the aerodrome
others

3. CHANGES DURING THE YEAR

[Briefly state the changes of any infrastructure, equipment, facilities or operating procedures at the aerodrome during the year]