



GOVERNMENT OF INDIA
OFFICE OF DIRECTOR GENERAL OF CIVIL AVIATION
TECHNICAL CENTRE, OPP SAFDARJANG AIRPORT, NEW DELHI

CIVIL AVIATION REQUIREMENTS
SECTION-4, AERODROME STANDARDS
& LICENSING
SERIES 'F', PART V
XXth October 2022

EFFECTIVE: FORTHWITH

Subject: REQUIREMENTS FOR ISSUE OF AN AERODROME LICENSE FOR AERODROME REFERENCE UPTO CODE 2B.

INTRODUCTION

The Central Govt. has made Rules for the licensing of aerodromes, which are, contained in Part XI of the Aircraft Rules 1937. The Rule 78 requires that no aerodrome shall be used as a regular place for landing and departure by a scheduled air transport service or for a series of landing and departures by any aircraft carrying passengers or cargo for hire or reward unless it has been licensed.

This CAR lays guidelines for grant of aerodrome license under the Aircraft Rules and is issued under the power conferred vide sub Rule (1) of Rule 83 and Rule 133A of the Aircraft Rules, 1937.

These guidelines are issued only for the licensing of the aerodrome from technical point of view and grant of license is subject to the clearance from the Central Govt. as per the Civil Aviation policy and instructions issued from time to time.

1. General

1.1 The aerodromes shall be licensed in one of the following categories, namely:

- i. **For public use**; the aerodrome, which, when available for operation of aircraft, shall be so available to all persons on equal terms and conditions.
- ii. **For private use**, that is to say, for use by the licensee and by individuals specifically authorized by the licensee.

(Note: Usage of Private use aerodromes excludes the operation of schedule flights)

2. Procedure for Application

2.1 Public Use Category. Ministry of Civil Aviation shall grant Site clearance and 'In Principle' approval for all proposals pertaining to the aerodromes under Public Use category as per the Greenfield Airport Policy.

2.2 Private Use Category. Site clearance as well as 'In Principle' approval shall be granted by DGCA as per technical assessment of the site and based on usage of airport indicated by the applicant. The 'In Principle' approval granted by DGCA indicates that the proposed airport is essentially meant for non-commercial operations by the licensee and by individuals specifically authorized by the licensee only.

2.3 Application for cargo airports need not be submitted for approval of the Ministry of Civil Aviation and these cases may be considered and decided at the level of DGCA, subject to applicable regulations.

2.4 In case the applicant wish to convert the airport from 'Private Use' category to 'Public Use' later, Steering Committee process and Government approvals as per the prevailing policy shall be required.

2.5 Similarly if an applicant wishes to convert the airport from 'Public Use' category, which was duly approved by Steering Committee, to 'Private Use' later, the case may be referred to Steering Committee for review.

3. Site Clearance.

3.1 Greenfield airport for public use: Prior to commencing the construction, the potential owner/developer of the Greenfield aerodrome for public use shall make applications to the Steering Committee at ministry of Civil Aviation. The request for site approval and issuance of in-principle approval in respect of these aerodromes shall be dealt by Steering Committee in accordance with Greenfield Airport Policy of GOI.

3.2 Airport for Private Use (including cargo airport): Application for private use aerodrome and cargo aerodrome shall be dealt in following manner. Applicant for construction of private use aerodrome and cargo aerodrome shall make an application to the DGCA in Form CA 93(A) as set out in Attachment-II for approval of the aerodrome site.

3.3 The applicant for private use aerodrome and cargo aerodrome shall obtain and forward, along with the application form, attested copies of the clearances/permissions to the DGCA from the following:

- i. Ministry of Defence; **
- ii. Ministry of Home Affairs (applied through MoCA)
- iii. Ministry of Environment and Forests, Government of India;
- iv. Owner of the land; and
- v. Local authority such as municipal corporation/committee or urban land development board/authority of the State or its Country and Town Planning Department. ***

*** While granting clearances /permission, it should be ensured that the proposed aerodrome is not causing operational constraints to the defence activities and security hazard.*

**** the local authorities should also indicate that a suitable mechanism has been evolved or exists to regulate the construction around the proposed aerodrome, so that the obstacle limitation surfaces as defined in Statutory Order issued in this regard by the Central Government, from time to time, can be continuously maintained.*

3.4 In case of the existing Govt. aerodromes, clearances in para 3.3 are not required. However the clearance from the Ministry of Environment for expansion of an aerodrome shall be applicable as per the instructions issued by them in this regard.

Note: Any aerodrome constructed and in operation prior to 1st Sept. 1992, will be considered as an existing aerodrome for this purpose.

3.5 The site may be inspected for its suitability by the DGCA along with the representatives of other agencies as considered necessary. The applicant shall make arrangements for facilitating the site inspection.

3.6 The decision of the site approval shall be communicated to the applicant. The approval of the site does not absolve the applicant from observing the statutory requirements of other official bodies (as in para 3.3).

4. Construction of Aerodrome

4.1 After 'in principle' clearance is given by the Steering Committee or DGCA, as the case may be, for the airport site, the applicant has to submit his intention and plan including a project report and commence construction work. The Steering Committee will monitor the progress of Greenfield airport proposals under development for public use where "in principle 'approvals are granted.

Note: The permission for the construction of aerodrome shall be granted only after the requisite clearances indicated above in para 3.3 has been submitted or received by DGCA.

4.2 The project report shall include the aerodrome facilities to be made available and that these services and equipment shall be provided in accordance with the requirements specified in the Civil Aviation Requirement, Section 4 Series B Part – I (Aerodromes).

4.3 Architectural and infrastructure related requirement for the optimal implementation of security requirement shall be integrated in the design of the aerodrome as per the BCAS guidelines issued in this regard from time to time.

4.4 During the construction the applicant is required to demonstrate and satisfy DGCA the quality assurance system being applied for the construction of aerodrome and procurement and installation of equipment etc.

4.5 DGCA may do periodical inspections of the aerodromes during the construction period if required to assess the progress and quality assurance system adopted by the applicant. Final inspection will be done after the applicant gives the completion report and makes a request for licensing of the aerodrome

5. Application for Grant of License

5.1 The application for grant of an aerodrome license by all aerodromes shall be made in the prescribed form CA 96(A) (Attachment –III) and Schedule for the issue of Aerodrome License (Attachment –IV) to the DGCA along with fee prescribed in the Aircraft Rules 1937. The application and prescribed fee shall be submitted through eGCA portal (www.dgca.gov.in)

5.2 The application for an aerodrome license shall be accompanied with an Aerodrome Manual, prepared in accordance with the requirement contained in Rule 81 of the Aircraft Rules, including establishment of an effective Safety Management System. The aerodrome manual shall be prepared in accordance with the guidelines contained in Rule 81 of the Aircraft Rules, including establishment of an effective Safety Management System and Aerodrome Advisory Circular (ADAC) 1 of 2006 and shall contain all the information, procedures and instructions that are necessary to enable the operating staff, competent to perform their duties in such a manner that will ensure the aerodrome to be safe for use by aircraft.

5.3 The aerodrome operator shall employ an adequate number of employees competent to perform their duties to perform all critical activities for aerodrome operations and maintenance. The aerodrome In-charge / Airport Director / Chief Operating Officer, who is responsible for day to day operations of aerodrome shall be the designated 'ACCOUNTABLE MANAGER' for the licensing authority

5.4 Applications should be submitted in sufficient time to allow for detailed consideration and inspection of the aerodrome before the issue of a license. The minimum period required for processing may be about three months from the date a complete application along with aerodrome manual is received by the DGCA. This period of three months may exceed in case the applicant is not able to resolve the observations/ issues satisfactorily.

5.5 The applicant shall submit compliance check list in respect of the requirements contained in Attachment-1 (Infrastructure Specifications for Design & Operations for aerodrome with Aerodrome Reference Code upto 2B) . The compliance statement shall indicate whether requirement has been met or not and if not, the extent of deviation thereto. Supporting material shall also be provided.

5.6 The applicant for the aerodrome to be licensed for Public Use shall demonstrate the functional arrangements and their integration for provision of CNS-ATM, RFF, AIS and meteorological services. Further Aerodrome operator will ensure publication of Aerodrome data in AIP within 02 months from the issuance of aerodrome license.

5.7 An aerodrome license shall be **valid for a period of five years** as prescribed in the Aircraft Rules, 1937 unless it is surrendered by the license holder or is suspended or cancelled by the Director General for non-adherence to the relevant Rules and requirements or for any other reason. The license shall remain valid subject to adherence of all applicable rules or regulations and conditions/limitations, if any, attached to the license.

5.8 The aerodrome operator shall establish and implement procedures for all users of the aerodrome that perform activities independently at the aerodrome in relation to aerodrome maintenance, flight or aircraft handling, to comply with the requirements laid down by the aerodrome operator with regard to safety at the aerodrome and speedy communication of any accidents, incidents, defects and faults which may have a bearing on safety in general. The aerodrome operator shall monitor such compliance and document the same.

5.9 During the currency of license, the DGCA may depute his representatives at any time for audit / inspection of the aerodrome. The license holder shall provide all necessary assistance for the conduct of the inspection / audit of the aerodrome by the DGCA representative. Deficiencies observed during such audit / inspection shall promptly be addressed and rectified within the period specified by the DGCA.

5.10 Aerodrome licensee remains responsible to maintain the aerodrome license in a proper condition. The aerodrome license should be kept in safe custody and

aerodrome operators have to safeguard the aerodrome license against tempering, loss, theft, mutilation or defacement. Aerodrome License is submitted for endorsement of renewal and other changes, therefore it should not be framed or laminated.

6. Renewal of License

6.1 The license holder shall submit the application for the renewal of license CA96(B) (Attachment V) along with the prescribed fee, at least two months prior to the date of expiry of aerodrome license in case of public use aerodromes and (one month prior to expiry in case of Private use category aerodrome.) The original aerodrome license should be enclosed for renewal.

6.2. A copy each of the last self-inspection report and the last calibration report on Navigation and Landing aids and latest runway friction assessment report shall also be submitted with the application. The self-inspection should have been completed within 30 days preceding the renewal application.

6.3. At the time of grant of aerodrome license, DGCA may impose certain conditions, which are required to be addressed by the license holder in a time bound manner as per the action plan submitted to DGCA. The Action Plan should be reviewed before making the application for renewal of license and the progress made in the direction of compliance shall be submitted along with the supporting documents, a revised Action Plan should also be submitted.

6.4 At the time of making application for renewal of license, the aerodrome operator shall submit the details of progress made during the currency of license regarding compliance of such requirements and adequacy of mitigation measures employed to ensure safety and regularity of flight operations.

6.5 During the currency of aerodrome license, the competency of manpower shall be maintained through specialized trainings and recurrent refreshers so as to meet the requirements of AD AC 1 of 2011. The license holder shall submit the details of all such trainings and refreshers along with the application for renewal of license.

6.6 Aerodrome Manual is accepted by DGCA before the grant of aerodrome license. Being a dynamic document containing all operational and technical information and procedures critical to flight safety, it should be amended as and when required. The details of all such amendments along with status of SMS implementation should be submitted along with the renewal application.

7. Change of Category of License

7.1 Application for the purpose should be submitted three months prior to the intended conversion of the license category. The original aerodrome license should be submitted along with the application.

7.2 In such cases, application in CA-96 (A) (Attachment III) for the issue of a fresh license shall be made along with the fee prescribed in Aircraft Rules for the category.

8. Amendment to Aerodrome License

8.1 An Aerodrome license may be amended in response to a request by the Aerodrome Operator or as a consequence of enforcement action by DGCA. The application for amendment to the aerodrome license should be submitted along with original aerodrome license.

8.2 The application for amendment to the aerodrome license should be supported by relevant documents including detailed account of the proposed amendment including the reasons for the amendment; the details of changes shall be included in the AIP, aerodrome manual and aerodrome emergency plan.

9. Change of Aerodrome License Holder

9.1 An aerodrome license is granted to a named 'legal person' (an individual or a company or any other legally constituted authority or body), who satisfies the DGCA that the criteria for the license issue have been met. Once a license is granted the licensee is to ensure that the aerodrome continues to meet the requirements. **An aerodrome license is nontransferable.**

9.2 If the owner or the operator of licensed aerodrome is to be changed, a fresh application along with requisite fee for issue of new license is to be submitted to DGCA by the prospective licensee. The prospective licensee shall also fulfill all requirements as required for an issue of license.

9.3 A change in the name only of the current license holder does not constitute a change of identity of the licensee, the licensee should apply for the variation of the license to reflect the name change and provide a copy of the relevant 'certificate of incorporation on change of name'

9.4 Minimum notification of three months is required for change in the license holder. During the change the outgoing licensee shall be responsible for the operation of the aerodrome until the grant of fresh aerodrome license to the new applicant.

10. Discontinuation / Surrender of License

10.1 The license holder must give a written notice to DGCA not less than 60 days from the date on which the license is to be discontinued / surrendered, in order

that suitable promulgation action can be taken. The original aerodrome license should be surrendered along with.

10.2 On approval of the surrender of the license, the aerodrome operator shall: -

(a) Provide such information to AAI for promulgation through Aeronautical Information Service.

(b) Ensure that appropriate measures have been taken to avoid unintended use of the aerodrome by aircraft.

11. Issue of Duplicate License due to Loss or Any Other Reason

11.1 The airport operator is responsible for proper upkeep and safe custody of aerodrome license at a secure place so that there is no risk of loss or defacing of license.

11.2 However, despite all precautions, if the license is lost or defaced, the aerodrome operator has to apply in writing for a duplicate copy of the aerodrome license to DGCA. The defaced license shall also be submitted along with.

11.3 In case the lost license is found after issue of duplicate license, the same shall be submitted to the office of DGCA at the earliest.

12. Submission of Applications

12.1 Applications for site selection, grant of license and renewal of license etc. are required to be signed with seal by the Owner or CEO or Managing Director of the company or any authorized signatory under whose name such authority is issued by any of the above persons.

12.2 All applications duly completed in all respect shall be forwarded to DGCA at the following address;

Director General of Civil Aviation
(Attn. : Director of Operations – Aerodrome Standards)
DGCA Complex, Opposite Safadarjung Airport,
New Delhi - 110003, I N D I A.
Email: doas@dgca.nic.in (for correspondence only)

(Arun Kumar)
Director General of Civil Aviation

DRAFT

Infrastructure Specifications for Design & Operations for aerodrome with Aerodrome Reference Code upto 2B

Introductory Note: The specifications laid down in this section are particularly pertaining to Aerodrome Reference Code – 2B or below. The scope of these requirements is for ARC 2B Instrument & Non-Instrument Runways and Instrument Runway including Precision Approach Runways but not including CAT II / III operations requirements. The reference documents used for this section is CAR Section 4 Series B Part I. the requirements made in this section are specific for any clarification CAR Section 4 Series B Part I may be referred.

1. Aerodrome Data

a) Aerodrome Reference Code

The intent of the reference code is to provide a simple method for interrelating the numerous specifications concerning the characteristics of aerodromes so as to provide a series of aerodrome facilities that are suitable for the aeroplanes that are intended to operate at the aerodrome. The code is not intended to be used for determining runway length or pavement strength requirements. The code is composed of two elements which are related to the aeroplane performance characteristics and dimensions. Element 1 is a number based on the aeroplane reference field length and element 2 is a letter based on the aeroplane wingspan. The code letter or number within an element selected for design purposes is related to the critical aeroplane characteristics for which the facility is provided.

Aerodrome Reference Code Table

Code Element 1		Code Element 2	
Code Number	Aeroplane reference field length	Code Letter	Wing Span
1	Less than 800m	A	Up to but not including 15m
2	800m up to but not including 1200m	B	15m up to but not including 24m

- b) Strength of Pavements – Shall be declared and published in ACN-PCN method.
- c) Aeronautical data- aerodrome related data shall be determined and reported.
- d) Aerodrome Reference point – shall be established and published.
- e) Aerodrome and Runway elevation- shall be measured and published.
- f) Aerodrome Reference Temperature- shall be measured and published.
- g) Pre-Flight Altimeter check location – Shall be established and published.
- h) Aerodrome Dimension & Related information-shall be measured and published.
- i) Declared Distances – Shall be calculated and published.
- j) Condition of movement area and related facilities- shall be published.
- k) Disabled Aircraft Removal – Shall be developed as part of aerodrome manual.
- l) Rescue & Fire Fighting – Shall be made available and published.
- m) VASI Systems (PAPI/VASI) – Shall be made available and published.
- n) Coordination with AIS and Aerodrome Operator – shall be formulated.

2. Physical Characteristics

2.1 Runways

2.1.1 Length of Runways

2.1.1.1 The actual runway length to be provided for a primary runway shall be adequate to meet the operational requirements of the aeroplanes 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 aeroplanes.

2.1.1.2 If the runway is associated with a stopway or clearway, an actual runway length less than that resulting from application to calculate actual length of runways, may be considered satisfactory, but in such a case any combination of runway, stopway and clearway provided shall permit compliance with the operational requirements for take-off and landing of the aeroplanes the runway is intended to serve.

2.1.1.3 Choice of maximum permissible crosswind components should be presumed that landing or take-off of aeroplanes is in normal circumstances, precluded when the cross-wind component exceeds 19 km/h (10 kt) in the case of aeroplanes whose reference field length is less than 1200 m.

2.1.2 Width of Runways: The width of runway shall not be less than 18m /23m/30m (for code 1 18m/23m and code 2 23m/30m) depending on the Outer Main Gear Wheel Span of the proposed Aircraft (Refer CAR 4/B/I) . The width of a precision approach runway shall be not less than 30 m.

2.1.3 Longitudinal Slopes

2.1.3.1 The slope computed by dividing the difference between the maximum and minimum elevation along the runway centre line by the runway length shall not exceeding to 2 per cent where the code number is 1 or 2.

2.1.3.2 Where the slope changes cannot be avoided, The transition from one slope to another shall be accomplished by a curved surface with a rate of change not exceeding 0.4 per cent per 30 m (minimum radius of curvature of 7 500 m) where the code number is 1 or 2.

2.1.3.3 where slope changes cannot be avoided, they shall be such that there will be an unobstructed line of sight from any point 2 m above a runway to all other points 2 m above the runway within a distance of at least half the length of the runway where the code letter is B.

2.1.3.4 Undulations or appreciable changes in slopes located close together along a runway shall be avoided. The distance between the points of intersection of two successive curves shall not be less than the sum of the absolute numerical values of the corresponding slope changes multiplied by the appropriate value as follows:

— 5 000 m where the code number is 1 or 2; or 45m, whichever is greater.

2.1.4 Transverse Slopes : The transverse slope shall be 2 per cent where the code letter is A or B; and Shall not be less than 1 per cent except at runway or taxiway

intersections where flatter slopes may be necessary. For a cambered surface the transverse slope on each side of the centre line shall be symmetrical.

2.1.5 Strength of Runways - A runway shall be capable of withstanding the traffic of aeroplanes the runway is intended to serve.

2.1.6 Surface of Runways –

2.1.6.1 The surface of a runway shall be constructed without irregularities that would impair the runway surface friction characteristics or otherwise adversely affect the take-off or landing of an aeroplane.

2.1.6.2 A paved runway shall be so constructed or resurfaced as to provide surface friction characteristics at or above the minimum friction level set by the DGCA.

2.1.6.3 The surface of a paved runway should be evaluated when constructed or resurfaced to determine that the surface friction characteristics achieve the design objectives.

2.1.6.4 Measurements of the surface friction characteristics of a new or resurfaced paved runway shall be made with a continuous friction measuring device using self-wetting features.

2.1.6.5 The average surface texture depth of a new surface shall be not less than 1.0 mm.

2.1.6.6 When the surface is grooved or scored, the grooves or scorings shall be either perpendicular to the runway centre line or parallel to non-perpendicular transverse joints, where applicable.

2.2 Runway Turn Pads

2.2.1 Where the end of a runway is not served by a taxiway or a taxiway turnaround and where the code letter is A or B, a runway turn pad **should be** provided to facilitate a 180-degree turn of aeroplanes.

2.2.2 The runway turn pad may be located on either the left or right side of the runway and adjoining the runway pavement at both ends of the runway and at some intermediate locations where deemed necessary.

2.2.3 The intersection angle of the runway turn pad with the runway shall not exceed 30 degrees.

2.2.4 The nose wheel steering angle to be used in the design of the runway turn pad shall not exceed 45 degrees.

2.2.5 The design of a runway turn pad shall be such that, when the cockpit of the aeroplane for which the turn pad is intended remains over the turn pad marking, the clearance distance between any wheel of the aeroplane landing gear and the edge of the turn pad shall be not less than that given by the following tabulation:

Outer main Gear Wheel Span (OMGWS)		
	Upto but not including 4.5m	4.5m upto but not including 6m.
Clearance	1.5m	2.25m

2.2.6 The longitudinal and transverse slopes on a runway turn pad shall be sufficient to prevent the accumulation of water on the surface and facilitate rapid

drainage of surface water. The slopes shall be the same as those on the adjacent runway pavement surface.

2.2.7 The strength of a runway turn pad shall be at least equal to that of the adjoining runway which it serves, due consideration being given to the fact that the turn pad will be subjected to slow-moving traffic making hard turns and consequent higher stresses on the pavement.

2.2.8 The surface of a runway turn pad shall not have surface irregularities that may cause damage to an aeroplane using the turn pad.

2.2.9 The surface of a runway turn pad shall be so constructed or resurfaced as to provide surface friction characteristics at least equal to that of the adjoining runway.

2.2.10 The runway turn pads shall be provided with shoulders of such width as is necessary to prevent surface erosion by the jet blast of the most demanding aeroplane for which the turn pad is intended, and any possible foreign object damage to the aeroplane engines.

Note.— As a minimum, the width of the shoulders need to cover the outer engine of the most demanding aeroplane and thus may be wider than the associated runway shoulders.

2.2.11 The strength of runway turn pad shoulders shall be capable of withstanding the occasional passage of the aeroplane it is designed to serve without inducing structural damage to the aeroplane and to the supporting ground vehicles that may operate on the shoulder.

2.3 Runway Strips –

2.3.1 **Length:** A strip shall extend before the threshold and beyond the end of the runway or stopway for a distance of at least — 60 m.

2.3.2 **Width:** A strip including a precision approach runway should extend laterally, (each side of the centre line of the runway and its extended centre line throughout the length of the strip) to a distance of at least — 70 m however in case of non-instrument runway to a distance of at least -40m

2.3.3 All the Objects on runway strip shall be removed.

2.3.4 Grading of Runway Strips:

2.3.4.1 That portion of a strip of an instrument runway within a distance of at least 40 m from the centre line of the runway and its extended centre line shall provide a graded area for aeroplanes which the run-way is intended to serve in the event of an aeroplane running off the runway.

2.3.4.2 That portion of a strip of a non-instrument runway within a distance of at least 40 m.

2.3.4.3 The surface of that portion of a strip that abuts a runway, shoulder or stopway shall be flush with the surface of the runway, shoulder or stopway.

2.3.4.4 That portion of a strip to at least 30 m before the start of a runway shall be prepared against blast erosion in order to protect a landing aeroplane from the danger of an exposed edge.

2.3.4.5 Where the areas where 30m before the start of a runway have paved surfaces, they should be able to withstand the occasional passage of the critical aeroplane for runway pavement design.

2.3.5 **Longitudinal Slopes** - A longitudinal slope along that portion of a strip to be graded shall not exceed 2 per cent. The slope changes on that portion of a strip to

be graded shall be as gradual as practicable and abrupt changes or sudden reversals of slopes avoided.

2.3.6 Transverse Slopes –

2.3.6.1 Transverse slopes on that portion of a strip to be graded shall be adequate to prevent the accumulation of water on the surface but shall not exceed 3 per cent.

2.3.6.2 Except that to facilitate drainage the slope for the first 3 m outward from the runway, shoulder or stopway edge shall be negative as measured in the direction away from the runway and may be as great as 5 per cent.

2.3.6.3 The transverse slopes of any portion of a strip beyond that to be graded shall not exceed an upward slope of 5 per cent as measured in the direction away from the runway.

2.3.7 Strength of Runway Strips – That portion of a strip of a runway within a distance of at least 40 m from the centre line of the runway and its extended centre line shall be so prepared or constructed as to minimize hazards arising from differences in load bearing capacity to aero-planes which the runway is intended to serve in the event of an aeroplane running off the runway.

2.4 Runway End Safety Areas –

2.4.1 Dimensions:

2.4.1.1 A runway end safety area shall be provided at each end of a runway strip in case of instrument runway.

2.4.1.2 A runway end safety area should be provided at each end of a runway strip in case of non-instrument runway.

2.4.1.3 A runway end safety area shall extend from the end of a runway strip to a distance of at least 90 m in case of instrument runway.

2.4.1.4 A runway end safety area shall extend from the end of a runway strip to a distance of at least 30 m in case of non-instrument one.

2.4.1.5 The width of a runway end safety area shall be at least twice that of the associated runway.

2.4.2 Objects on runway end safety areas – shall be removed, as far as practicable.

2.4.3 Clearing and Grading of runway end safety areas – Shall be provided, as per CAR 4/B/I

2.4.4 Slopes on runway end safety areas –

2.4.4.1 The slopes of a runway end safety area shall be such that no part of the runway end safety area penetrates the approach or take-off climb surface.

2.4.4.2 The longitudinal slopes of a runway end safety area shall not exceed a downward slope of 5 per cent. Longitudinal slope changes should be as gradual as practicable and abrupt changes or sudden reversals of slopes avoided.

2.4.4.3 The transverse slopes of a runway end safety area shall not exceed an upward or downward slope of 5 per cent. Transitions between differing slopes should be as gradual as practicable.

2.4.4.4 A runway end safety area shall be so prepared or constructed as to reduce the risk of damage to an aeroplane undershooting or overrunning the runway, enhance

aeroplane deceleration and facilitate the movement of rescue and fire fighting vehicles.

2.5 Stop Ways – Not Mandatory, if provided:

2.5.1 A stopway shall have the same width as the runway with which it is associated.

2.5.2 Slopes and changes in slope on a stopway, shall be the same as those for associated runway except that: a) the limitation of a 0.8 per cent slope for the first and last quarter of the length of a runway need not be applied to the stopway;

2.5.3 A stopway shall be prepared or constructed so as to be capable, in the event of an abandoned take-off, of supporting the aeroplane which the stopway is intended to serve without inducing structural damage to the aeroplane.

2.5.4 The surface of a paved stopway shall be so constructed or resurfaced as to provide surface friction characteristics at or above those of the associated runway.

2.6 Radio Altimeter operating area –it is not a mandatory requirements however in case of CAT I precision runway it's a recommendations, if provided the specifications are to be as follows :

2.6.1 A radio altimeter operating area shall extend before the threshold for a distance of at least 300 m.

2.6.2 A radio altimeter operating area shall extend laterally, on each side of the extended centre line of the runway, to a distance of 60 m, except that, when special circumstances so warrant, the distance may be reduced to no less than 30 m if an aeronautical study indicates that such reduction would not affect the safety of operations of aircraft.

2.6.3 On a radio altimeter operating area, slope changes shall be avoided or kept to a minimum. Where slope changes cannot be avoided, the slope changes shall be as gradual as practicable and abrupt changes or sudden reversals of slopes avoided. The rate of change between two consecutive slopes shall not exceed 2 per cent per 30 m.

2.2 Taxiways

2.2.1 Taxiways shall be provided to permit the safe and expeditious surface movement of aircraft. Sufficient entrance and exit taxiways for a runway should be provided to expedite the movement of aeroplanes to and from the runway and provision of rapid exit taxiways considered when traffic volumes are high.

2.2.2 Design and other requirements:

2.2.2.1 The design of a taxiway shall be such that, when the cockpit of the aeroplane for which the taxiway is intended remains over the taxiway centre line markings, the clearance distance between the outer main wheel of the aeroplane and the edge of the taxiway shall be not less than that given by the following tabulation:

<i>Outer main Gear Wheel Span (OMGWS)</i>		
	<i>Upto but not including 4.5m</i>	<i>4.5m upto but not including 6m.</i>
<i>Clearance</i>	<i>1.5m</i>	<i>2.25m</i>

2.2.2.2 A straight portion of a taxi-way shall have a width of not less than that given by the following tabulation:

<i>Outer main Gear Wheel Span (OMGWS)</i>

	<i>Upto but not including 4.5m</i>	<i>4.5m upto but not including 6m.</i>
<i>Taxiway width</i>	<i>7.5m</i>	<i>10.5m</i>

2.2.2.3 Taxiway Curves - Changes in direction of taxiways should be as few and small as possible. The radii of the curves should be compatible with the manoeuvring capability and normal taxiing speeds of the aeroplanes for which the taxiway is intended. The design of the curve should be such that, when the cockpit of the aeroplane remains over the taxiway centre line markings, the clearance distance between the outer main wheels of the aeroplane and the edge of the taxiway should not be less than those specified as per it's OMGWS.

2.2.3 Fillets – Shall be provided at all junctions. Minimum wheel clearances specified as per it's OMGWS shall be maintained when aeroplanes are manoeuvring through the junctions or intersections.

2.2.4 Minimum Separation Distances

Code Letter	Distance between taxiway centre line and runway centre line (metres)				Taxiway centre line to taxiway centre line (metres)	Taxiway other than aircraft stand taxilane, centre line to object (metres)	Aircraft stand taxiway centre line to aircraft stand taxilane centre line (metre)	Aircraft stand taxilane centre line to object (metres)
	Instrument runways Code number		Non-instrument runways Code number					
	1	2	1	2				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
A	77.5	77.5	37.5	47.5	23	15.5	19.5	12
B	82	82	42	52	32	20	28.5	16.5

2.2.5 Longitudinal Slopes:

2.2.5.1 The longitudinal slope of a taxiway shall not exceed 3 percent.

2.2.5.2 Longitudinal slope changes: Where slope changes on a taxiway cannot be avoided, the transition from one slope to another slope shall be accomplished by a curved surface with a rate of change not exceeding 1 per cent per 25 m (minimum radius of curvature of 2 500 m).

2.2.5.3 Sight distance: Where a change in slope on a taxi-way cannot be avoided, the change shall be such that, from any point 2 m above the taxiway, it will be possible to see the whole surface of the taxiway for a distance of at least 200 m from that point.

2.2.6 Transverse slopes: The transverse slopes of a taxiway shall be sufficient to prevent the accumulation of water on the surface of the taxiway but shall not exceed 2 per cent .

2.2.7 Strength of Taxiways:

2.2.7.1 The strength of a taxiway shall be at least equal to that of the runway it serves, due consideration being given to the fact that a taxiway will be subjected to a greater density of traffic and, as a result of slow moving and stationary aeroplanes, to higher stresses than the runway it serves.

2.2.7.2 The surface of a taxiway shall not have irregularities that cause damage to aeroplane structures.

2.2.7.3 The surface of a paved taxiway should be so constructed or resurfaced as to provide suitable surface friction characteristics.

2.2.8 Rapid Exit Taxiways –

2.2.8.1 A rapid exit taxiway shall be designed with a radius of turn-off curve of at least 275 m to enable exit speeds under wet conditions of 65 km/h.

2.2.8.2 The radius of the fillet on the inside of the curve at a rapid exit taxiway shall be sufficient to provide a widened taxiway throat in order to facilitate early recognition of the entrance and turn-off onto the taxiway.

2.2.8.3 A rapid exit taxiway shall include a straight distance after the turn-off curve sufficient for an exiting aircraft to come to a full stop clear of any intersecting taxiway.

2.2.8.4 The intersection angle of a rapid exit taxiway with the runway shall not be greater than 45° nor less than 25° and preferably shall be 30°.

2.2.9 Taxiway on Bridges - The width of that portion of a taxiway bridge capable of supporting aeroplanes, as measured perpendicularly to the taxiway centre line, shall not be less than the width of the graded area of the strip provided for that taxiway, unless a proven method of lateral restraint is provided which shall not be hazardous for aeroplanes for which the taxiway is intended.

A bridge shall be constructed on a straight section of the taxiway with a straight section on both ends of the bridge to facilitate the alignment of aeroplanes approaching the bridge.

2.2.10. Taxiway Shoulders –Not Mandatory, if provided should be as per CAR 4/B/I

2.2.11. Taxiway Strips –

2.2.11.1 Shall be provided symmetrically on each side of the taxiway centre line based on minimum separation distance table.

2.2.11.2 The taxiway strip shall provide an area clear of objects which may endanger taxiing aeroplanes.

2.2.11.3 The centre portion of a taxiway strip shall provide a graded area to a distance from the centre line of the taxiway of not less than that given by the following tabulation:

- 10.25 m where the OMGWS is up to but not including 4.5 m
- 11 m where the OMGWS is 4.5 m up to but not including 6 m

2.2.11.4 The surface of the strip shall be flush at the edge of the taxiway and the graded portion shall not have an upward transverse slope exceeding 3 per cent for strips of taxiways.

2.2.11.5 the upward slope being measured with reference to the transverse slope of the adjacent taxiway surface and not the horizontal. The downward transverse slope shall not exceed 5 per cent measured with reference to the horizontal.

2.2.11.6 The transverse slopes on any portion of a taxiway strip beyond that to be graded shall not exceed an upward or downward slope of 5 per cent as measured in the direction away from the taxiway.

2.3 Holding Positions

2.3.1. A runway-holding position or positions shall be established either on the taxiway, at the intersection of a taxiway and a runway; or at an intersection of a runway with another runway when the former runway is part of a standard taxi-route.

2.3.2 A runway-holding position shall be established on a taxiway if the location or alignment of the taxiway is such that a taxiing aircraft or vehicle can infringe an obstacle limitation surface or interfere with the operation of radio navigation aids.

2.3.3 An intermediate holding position shall be established on a taxiway at any point other than a runway-holding position where it is desirable to define a specific holding limit.

2.3.4 A road-holding position shall be established at an intersection of a road with a runway.

2.3.5 The distance between a holding bay, runway-holding position established at a taxiway/runway intersection or road-holding position and the centre line of a runway shall be in accordance with Table for minimum separation distances and, in the case of a precision approach runway, such that a holding aircraft or vehicle will not interfere with the operation of radio navigation aids or penetrate the inner transitional surface.

2.3.6 The location of a runway-holding position established shall be such that a holding aircraft or vehicle will not infringe the obstacle free zone, approach surface, take-off climb surface or ILS/MLS critical/sensitive area or interfere with the operation of radio navigation aids.

2.4 Aprons:

2.4.1 Aprons shall be provided where necessary to permit the on- and off-loading of passengers, cargo or mail as well as the servicing of aircraft without interfering with the aerodrome traffic.

2.4.2 Each part of an apron shall be capable of withstanding the traffic of the aircraft it is intended to serve, due consideration being given to the fact that some portions of the apron will be subjected to a higher density of traffic and, as a result of slow moving or stationary aircraft, to higher stresses than a runway.

2.4.3 Slopes on an apron, including those on an aircraft stand taxilane, shall be sufficient to prevent accumulation of water on the surface of the apron but shall be kept as level as drainage requirements permit on an aircraft stand the maximum slope shall not exceed 1 per cent.

2.4.4 An aircraft stand shall provide the minimum 3 m clearances between an aircraft entering or exiting the stand and any adjacent building, aircraft on another stand and other objects

2.4.5 An isolated aircraft parking position shall be designated or the aerodrome control tower shall be advised of an area or areas suitable for the parking of an aircraft which is known or believed to be the subject of unlawful interference, or which for other reasons needs isolation from normal aerodrome activities.

2.4.6 The isolated aircraft parking position shall be located at the maximum distance practicable and in any case never less than 100 m from other parking positions, buildings or public areas, etc. Care shall be taken to ensure that the position is not located over underground utilities such as gas and aviation fuel and, to the extent feasible, electrical or communication cables.

2.4.7 Minimum distance from Rwy centre line to holding bay, runway holding position or road holding position.

-	Code number	
Type of runway	1	2
Non-instrument	30 m	40 m
Non-precision approach	40 m	40 m
Precision approach category I	60 m ^b	60 m ^b
Take-off runway	30 m	40 m
b. This distance may need to be increased to avoid interference with radio navigation aids, particularly the glide path and localizer facilities. Information on critical and sensitive areas of ILS and MLS is contained in ICAO Annex 10, Volume I, Attachments C and G, respectively (see also 3.12.6). <i>Note — The distance of 60 m for code number 2 is based on an aircraft with a tail height of 8 m, a distance from the nose to the highest part of the tail of 24.6 m and a nose height of 5.2 m holding at an angle of 45° or more with respect to the runway centre line, being clear of the obstacle free zone.</i>		

2.4.8 This distance may need to be increased to avoid interference with radio navigation aids, particularly the glide path and localizer facilities. Information on critical and sensitive areas of ILS and MLS is contained in ICAO Annex 10, Volume I, Attachments C and G, respectively (see also 3.12.6).

2.5 De-icing/anti-icing – if provided should be as per CAR 4/B/I

3. Obstacle Restriction and Removal

Note : The objectives of the specifications of obstacle limitation surfaces are to define the airspace around aerodromes to be maintained free from obstacles so as to permit the intended aeroplane operations at the aerodromes to be conducted safely and to prevent the aerodromes from becoming unusable by the growth of obstacles around the aerodromes. This is achieved by establishing a series of obstacle limitation surfaces that define the limits to which objects may project into the airspace. Objects, which penetrate the obstacle limitation surfaces contained in this section, may in certain circumstances cause an increase in the obstacle clearance altitude/height for an instrument approach procedure or any associated visual circling procedure or have other operational impact on flight procedure design. Construction of buildings, trees etc. is regulated by section 9 of the Aircraft Act 1934 and surfaces required to be maintained around an aerodrome are defined in the prevailing central Govt. notification in this regard.

Note 1.— Criteria for flight procedure design are contained in ICAO Procedures for Air Navigation Services — Aircraft Operations (PANS-OPS) (Doc 8168).

Note 2.— The Appropriate authority for the purpose of this para shall be Central Government [S.O. 304(E) dated 9.3.2005]

Note 3.— The establishment of, and requirements for, an obstacle protection surface for visual approach slope indicator systems are specified in 5.3.5.42 to 5.3.5.46 of CAR 4/B/I .

3.1 Obstacle Limitation surfaces: The Obstacle limitation surfaces are imaginary surfaces associated with runways surfaces that define the limits of the aerodrome airspace above which an object becomes obstacle to aircraft operations. The following surfaces are considered s part of Obstacle limitation surfaces:

- a) Outer Horizontal Surface
- b) Conical Surface
- c) Inner Horizontal Surface
- d) Approach Surface
- e) Inner approach surface
- f) Transitional surface
- g) Inner Transitional surface
- h) Balked Landing Surface
- i) Take off Climb Surface
- j) Obstacle Free Zone.

The specifications and dimensions of each surface can be referred to CAR section 4 Series B part I

3.2 Non-Instrument Runways

The following obstacle limitation surfaces shall be established for a non-instrument runway:

- Conical surface;
- Inner horizontal surface;
- Approach surface; and
- Transitional surfaces.

3.2 Non-Precision Approach Runways

The following obstacle limitation surfaces shall be established for a non-precision approach runway:

- Conical surface;
- Inner horizontal surface;
- Approach surface; and
- Transitional surfaces.

3.3 Precision Approach Runways

a) The following obstacle limitation surfaces shall be established for a precision approach runway category I:

- Conical surface;
- Inner horizontal surface;
- Approach surface; and
- Transitional surfaces.

b) The following obstacle limitation surfaces may additionally be established for a precision approach runway category I:

- Inner approach surface;
- Inner transitional surfaces; and
- Balked landing surface.

3.4 Dimensions and Slopes of obstacle limitation surfaces – Approach Runways

Surface and Dimensions	Runway Classification				
	Non-Instrument Code Number		Non-Precision approach Code Number	Precision approach category I Code Number	
	1	2	1,2	1,2	
(1)	(2)	(3)	(4)	(5)	
CONICAL					
Slope	5%	5%	5%	5%	
Height	35 m	55 m	60 m	60 m	
INNER HORIZONTAL					
Height	45 m	45 m	45 m	45 m	
Radius	2000 m	2500 m	3500 m	3500 m	
INNER APPROACH					
Width	-	-	-	90 m	
Distance from Threshold	-	-	-	60 m	

Length	-	-	-	900 m	
Slope	-	-	-	2.5%	
APPROACH					
Length of inner edge	60 m	80 m	140 m	140 m	
Distance from threshold	30 m	60 m	60 m	60 m	
Divergence (Each Side)	10%	10%	15%	15%	
First Section					
Length	1600 m	2500 m	2500 m	3000 m	
Slope	5%	4%	3.33%	2.5%	
Second Section					
Length	-	-	-	12000 m	
Slope	-	-	-	3%	
Horizontal Section					
Length	-	-	-	-	
Total Length	-	-	-	15000 m	
TRANSITIONAL					
Slope	20%	20%	20%	14.3%	
INNER TRANSITIONAL					
Slope	-	-	-	40%	
BALKED LANDING SURFACE					
Length of Inner edge	-	-	-	90 m	
Distance from threshold	-	-	-	*	
Divergence (each side)	-	-	-	10%	
Slope	-	-	-	4%	
* Distance to the end of the strip.					

3.5 Dimensions and slopes of obstacle limitation surfaces – Runways meant for take-off

	Code Number	
Surface and dimensions*	1	2
(1)	(2)	(3)
TAKE-OFF CLIMB		
Length of Inner Edge	60 m	80 m
Distance from runway end**	30 m	60 m
Final Width	380 m	580 m
Length	1600 m	2500 m
Slope	5%	4%
*All dimensions are measured horizontally unless specified otherwise.		
**The take-off climb surface starts at the end of the clearway.		

4. Visual Aids for Navigation

- 4.1 An aerodrome shall be equipped with at least one wind direction indicator.
- 4.2 Landing Direction Indicator – Shall be provided
- 4.3 Signalling Lamp – Shall be provided
- 4.4 Signal Panels and signal area – Shall be provided for aerodrome used only for VFR operations.

4.5 Markings –

- 4.5.1 **Runway designation marking** – Shall be provided
- 4.5.2 **Runway centre line marking** – Shall be provided

The width of the stripes shall be not less than:

- 0.45 m on precision approach category I runways; and
- 0.30 m on non-precision approach runways where the code number is 1 or 2, and on non-instrument runways.

4.5.3 **Threshold marking** – Shall be provided

The number of stripes shall be in accordance with the runway width as follows:

Runway Width	Number of strips
18m	4
23m	6
30m	8

4.5.4 **Aiming point marking** – Shall be provided for instrument runway as per table 5-1

Table 5-1. Location and dimensions of aiming point marking

Location and dimensions (1)	Landing distance available			
	Less than 800 m (2)	800 m up to but not including 1 200 m (3)	1 200 m up to but not including 2 400 m (4)	2 400 m and above (5)
Distance from threshold to beginning of marking	150 m	250 m	300 m	400 m
Length of stripe ^a	30–45 m	30–45 m	45–60 m	45–60 m
Width of stripe	4 m	6 m	6–10 m ^b	6–10 m ^b
Lateral spacing between inner sides of stripes	6 m ^c	9 m ^c	18–22.5 m	18–22.5 m

a. The greater dimensions of the specified ranges are intended to be used where increased conspicuity is required.

b. The lateral spacing may be varied within these limits to minimize the contamination of the marking by rubber deposits.

c. These figures were deduced by reference to the outer main gear wheel span which is element 2 of the aerodrome reference code at Chapter 1, Table 1-1.

4.5.5 Touchdown zone marking – Shall be provided for precision approach runway

4.5.5.1 A touchdown zone marking shall consist of pairs of rectangular markings symmetrically disposed about the runway centre line with the number of such pairs related to the landing distance available and, where the marking is to be displayed at both the approach directions of a runway, the distance between the thresholds, as follows:

Landing distance available or the distance between thresholds	Pair(s) of markings
less than 900 m	1
900 m up to but not including 1 200 m	2
1 200 m up to but not including 1 500 m	3
1 500 m up to but not including 2 400 m	4
2 400 m or more	6

4.5.5.2 On a non-precision approach runway where the code number is 2, an additional pair of touchdown zone marking stripes shall be provided 150 m beyond the beginning of the aiming point marking.

4.5.6 Runway Side Stripe marking – Shall be provided on precision approach runway. Shall be provided where there is a lack of contrast between runway edges and the shoulders or the surrounding terrain. A runway side stripe should have an overall width of at least 0.9 m on runways 30 m or more in width and at least 0.45 m on narrower runways

4.5.7 Taxiway Centre Line Marking – Shall be provided at an intersection of a taxiway with a runway where the taxiway serves as an exit from the runway, the taxiway centre line marking shall be curved into the runway centre line marking. The taxiway centre line marking shall be extended parallel to the runway centre line marking for a distance of at least for a distance of at least 30 m .

4.5.8 Runway Turn Pad Marking – The runway turn pad marking shall be extended parallel to the runway centre line marking for a distance of at least 30 m.

4.5.9 Runway Holding Position Marking–Shall be provided, As per CAR 4/B/I

4.5.10 Intermediate Holding Position Marking – Shall be provided.

4.5.11 VOR Aerodrome Check Point Marking – Shall be provided if aerodrome equipped with VOR

4.5.12 Aircraft stand markings – Shall be provided, As per CAR 4/B/I.

4.5.13 Apron Safety Lines – Shall be provided, As per CAR 4/B/I.

4.5.14 Road Holding position marking – Shall be provided, As per CAR 4/B/I .

4.5.15 Mandatory Instruction Marking – Should be provided as applicable.

The mandatory instruction marking on taxiways, where the code letter is A, B, C, or D, shall be located across the taxiway equally placed about the taxiway centerline and on the holding side of the runway-holding position marking. The character height should be 2 m where the code letter is A or B.

4.5.16 Information Marking – Should be provided as applicable.

5.1 Lights: The specification, dimensions, illumination etc. may be referred to CAR Section 4 Series B Part I and Airport Service manual on the subject.

5.1.1. Aerodrome Beacon – Shall be provided for night operations

5.1.2. Identification beacon – Shall be provided for night operations subject to other conditions.

5.1.3. Approach Lighting Systems–Shall be provided based on type of approach

Non-Instrument Runway – Not mandatory

Non-precision approach runway – SALS mandatory subject to other conditions

Precision Approach Runway Category I, II & III – Mandatory

5.1.4. Circling guidance lights – Should be provided, Not mandatory

5.1.5. Runway lead – in lighting systems –Should be provided,Not mandatory

5.1.6. Runway threshold identification lights – Applicable only for non-precision approach runway or permanent displacement of threshold.

5.1.7.Runway edge lights – Shall be provided

5.1.8. Runway threshold and wing bar lights – Shall be provided, if edge lights are provided

5.1.9. Runway end lights - Shall be provided, if edge lights are provided

5.1.10. Runway centre line lights – Shall be provided for ops below 400m

5.1.11. Runway touch down zone lights – Shall be provided for CAT II & III

5.1.12. Rapid exit taxiway indicator lights – Shall be provided for ops below 350m RVR

- 5.1.13. Stopway lights** – Shall be provided for night operations
- 5.1.14. Taxiway Centre Line Lights** - Shall be provided for ops below 350m RVR
- 5.1.15. Taxiway edge lights** – Shall be provided for night operations
- 5.1.16. Runway turn pad lights**- Shall be provided for ops below 350m RVR
- 5.1.17. Stop bars** – shall be provided for operations below 550m RVR
- 5.1.18. De-icing/anti-icing facility exit lights** – Subject to availability of De-icing facility
- 5.1.19. Runway Guard Lights** – Shall be provided, subject to conditions
- 5.1.20. Apron flood lighting** – Shall be provided for night operations.
- 5.1.21. Visual Docking guidance System** – Not mandatory
- 5.1.22. Aircraft stand manoeuvring guidance lights** – Not mandatory
- 5.1.23. Road holding position light** – Shall be provided for operations below 350m
- 5.1.24. No Entry Bar** – Should be provided, Not mandatory
- 5.1.25. Visual Approach Slope Indicator Systems** – Shall be provided based on conditions

5.1.26. Dimensions and slopes of the obstacle protection surface

Surface dimensions	Runway type/code number			
	Non-Instrument Code Number		Instrument Code Number	
	1	2	1	2
Length of Inner edge	60 m	80 m	150 m	150 m
Distance from the visual approach slope indicator system	D1+30 m	D1+60 m	D1+60 m	D1+60 m
Divergence (each side)	10%	10%	15%	15%
Total Length	7500 m	7500 m	7500 m	7500 m
Slope				
a) T-VASIS and AT-VASIS	-(c)	1.9°	-	1.9°
b) PAPI(d)	-	A– 0.57°	A– 0.57°	A– 0.57°
c) APAPI (d)	A– 0.9°	A– 0.9°	A– 0.9°	A– 0.9°
a. This length is to be increased to 150 m for a T-VASIS or AT-VASIS. b. This length is to be increased to 15 000 m for a T-VASIS or AT-VASIS. c. No slope has been specified if a system is unlikely to be used on runway type/code number indicated. d. Angles as indicated in Figure 5-20. e. D1 is the distance of the visual approach slope indicator system from threshold prior to any displacement to remedy object penetration of the OPS (refer Figure 5-19). The start of the OPS is fixed to the visual approach slope indicator system location, such that displacement of the PAPI results in an equal displacement of the start of the OPS. See 5.3.5.45(e)				

6. Signs

6.1 Location distance for taxiing guidance signs including runway exit signs.

Sign Height (mm)				Perpendicular distance from defined taxiway pavement edge to near side of sign	Perpendicular distance from defined runway pavement edge to near side of sign
Code number	Legend	Face(min)	Installed (max)		
1 or 2	200	300	700	5-11 m	3-10 m
1 or 2	300	450	900	5-11 m	3-10

6.2 Signs shall be illuminated – RVR less than 800m or for instrument runways during night. Signs shall be retro reflective and/or illuminated when intended for use at night in association with non-instrument runways where the code number is 1 or 2.

6.3 Mandatory Instruction Signs – Shall be provided, Where, owing to environmental or other factors, the conspicuity of the inscription on a mandatory instruction sign needs to be enhanced, the outside edge of the white inscription shall be supplemented by a black outline measuring 10 mm in width.

6.4 Information Signs – Shall be provided, at a taxiway intersection, information signs shall be located prior to the intersection and in line with the intermediate holding position marking. Where there is no intermediate holding position

marking, the signs shall be installed at least 40 m from the centre line of the intersecting taxiway.

6.4.1 A runway exit sign shall be located prior to the runway exit point in line with a position at least 30 m prior to the point of tangency.

6.4.2 An intersection take-off sign shall be located at the left-hand side of the entry taxiway. The distance between the sign and the centre line of the runway shall be not less than 45 m.

6.5 VOR aerodrome check-point sign – Shall be provided, if VOR check point established.

6.6 Aerodrome Identification sign – Should be provided, Not mandatory.

6.7 Aircraft stand identification signs – Shall be provided where feasible.

6.8 Road-holding position sign – Shall be provided.

7 Markers

7.1 Stopway edge markers – Should be provided, Not mandatory

7.2 Taxiway edge markers - Taxiway edge markers should be provided on a taxiway where the code number is 1 or 2 and taxiway centre line or edge lights or taxiway centre line markers are not provided.

8. Visual Aids for Denoting Obstacles – As per CAR 4B1, No changes.

9. Visual Aids for denoting restricted use areas - As per CAR 4B1, No changes.

10. Electrical Systems - As per CAR 4B1, No changes.

11. Fencing – Shall be provided, As per BCAS.

12. Security Lighting – Should be illuminated not mandatory as per BCAS

13. Aerodrome Maintenance - As per CAR 4B1, No changes.

14. Disabled aircraft removal – Plan shall be established

15. Wild life hazard reduction – Shall be assessed

16. Apron Management Service – Shall be provided

17. Ground servicing of aircraft – Regulations to be provided

18. Aerodrome vehicle operations – Regulations to be provided

19. Surface movement guidance and control systems – Shall be provided

20. Siting of equipment and installations on operational areas – shall be provided as per CAR 4BI

21. Aerodrome emergency planning – shall be established

22. Aerodrome Maintenance: As per CAR 4B1, No changes

23. Rescue and Fire Fighting – Shall be provided as per the ARFF category declared for aerodrome, the specification/requirements related to Task Resource Analysis , competency , training, response time & complementary agent shall be referred to CAR 4/B/I

23.1 Level of protection to be provided

Table 9-1. Aerodrome category for rescue and fire fighting

Aerodrome category (1)	Aeroplane overall length (2)	Maximum Fuselage Width (3)
1	0 m up to but not including 9 m	2 m
2	9 m up to but not including 12 m	2 m
3	12 m up to but not including 18 m	3 m
4	18 m up to but not including 24 m	4 m
5	24 m up to but not including 28 m	4 m

Table 9-2. Minimum usable amounts of extinguishing agents

Foam meeting performance level A			Foam meeting performance level B		Foam meeting performance level C		Complementary agents	
Aerodrome Category	Water (L)	Discharge rate foam solution/minute (L)	Water (L)	Discharge rate foam solution/min (L)	Water (L)	Discharge rate foam solution/min (L)	Dry chemical powders (kg)	Discharge Rate kg/sec
1	2	3	4	5	6	7	8	9
1	350	350	230	230	160	160	45	2.25
2	1000	800	670	550	460	360	90	2.25
3	1800	1300	1200	900	820	630	135	2.25
4	3600	2600	2400	1800	1700	1100	135	2.25
5	8100	4500	5400	3000	3900	2200	180	2.25

The Rescue and fire fighting vehicles: At least one rescue and fire fighting vehicles and ambulance shall be provided up to ARFF category 5.

APPLICATION FOR AERODROME SITE APPROVAL

(In triplicate)

1. DETAILS OF APPLICANT

1.1	Full name of applicant (in capital letters)	
1.2	Address of applicant (in capital letters)	
1.3	Telephone Number(s)	
	Fax Number	
	Email/ Telex number	
1.4	Nationality of the Applicant	

2. DETAILS OF AERODROME SITE

2.1	Place name by which the aerodrome is to be known in all future references	
2.2	Name and Address of the owner of Aerodrome	
	Telephone Number	
	Fax Number	
	Email / Telex Number	
2.3	Location of the aerodrome site with reference to the nearest airport, railway station and town/village	
2.4	State / District in which situated	
2.5	Latitude / longitude of the Aerodrome reference point	__° __' __" N __° __' __" E
2.6	Grid reference in WGS 84	
2.7	Elevation of the Aerodrome reference point (AMSL)	Feet (.....meter)

3. CONTROL OF THE AERODROME

Are you the owner of the aerodrome land

YES ☐ NO ☐**IF NO – Please state:**

3.1 Details of the rights you hold over the land (Attach copy of relevant documents)

--

3.2 The period for which you hold these rights, including terminating date

FROM	TO	TERMINATION

4. PERMISSIONS AND APPROVALS REQUIRED

	Whether Submitted	Details / Action taken
4.1 Ministry of Defence	YES ☐ NO ☐	
4.2 Ministry of Home Affairs.	YES ☐ NO ☐	
4.3 Ministry of Environment and Forests, Government of India	YES ☐ NO ☐	
4.4 Owner of the land	YES ☐ NO ☐	
4.5 Local authority such as municipal corporation / committee or urban land development board/ authority of the State or its Country and Town Planning Department.	YES ☐ NO ☐	

5. TOTAL LAND AREA AVAILABLE

5.1 Dimensions
(Enclose layout plan of the aerodrome site,
including boundary, buildings and facilities
proposed to be provided, preferable scale 1:2500
/ 5000)

Details

--

5.2 Enclose a topographical map in the scale of
1:25,000 or 1:50,000 of the proposed area
showing distances and heights of all objects
likely to interfere with the safe use of the
aerodrome within a radius of Kms of the
proposed site. (*5Km for VFR/ 15 Kms for IFR
operations)

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6. METEOROLOGICAL INFORMATION (Attach data from recognized organization for a reasonable period as available.)

6.1 Wind speed/ direction data and wind rose diagram.

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6.2 Rainfall data

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6.3 Aerodrome Reference temperature

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7. AERODROME ACTIVITIES

- 7.1 State category of aerodrome / heliport proposed as defined in Aircraft Rules 1937 ? PUBLIC USE ☐ PRIVATE USE ☐
- 7.2 State aerodrome reference code (in case of aerodrome as per CAR Series-B, Part-I, Table 1-1) CODE NUMBER ☐ CODE LETTER ☐
- 7.3 State proposed type of operations DAY VFR ☐ ALL WEATHER ☐

8. EXPLAIN ARRANGEMENTS FOR

- 8.1 Accessibility to site
- 8.2 Water supply
- 8.3 Electric power
- 8.4 Medical facilities

9. DETAILS OF AGENCY LIKELY TO EXECUTE THE WORK / CONSULTANT

- 9.1 Name of the Agency (Attach qualification, experience & their quality assurance system)
- 9.2 Name and details of consultant engaged for the project
- 9.3 Whether project report is prepared (if yes, please enclose the report) YES ☐ NO ☐

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

DATE.....

SIGNATURE OF APPLICANT

NAME.....
(in capital letters)

POSITION HELD
(with official seal)

APPLICATION FOR AERODROME LICENCE
(In triplicate)

1. DETAILS OF LICENCEE (as required to be shown on the license)

1.1	Full name of applicant (in capital letters)	
1.2	Address of applicant (in capital letters)	
1.3	Telephone Number(s)	
	Fax Number	
	Email/ Telex number	
1.4	Nationality of the Applicant	

3. DETAILS OF AERODROME (as required to be shown on the license)

2.1	Place name by which the aerodrome is to be known in all future references	
2.2	Name and Address of the owner of Aerodrome	
	Telephone Number	
	Fax Number	
	Email / Telex Number	
2.3	Situation of the aerodrome site with reference to the nearest airport, railway station and town/village	
2.4	State / District in which situated	
2.5	Latitude / longitude of the Aerodrome reference point	__ ° __ ' __ ° __ " N __ ° __ ' __ ° __ " E
2.6	Grid reference in WGS 84 (attach a survey map, scale1:10,000 showing by means of broken line the exact boundaries of the aerodrome)	
2.7	Elevation of the Aerodrome reference point (AMSL)	Feet (.....meter)
2.8	Orientation and length of runway (s) (in feet and meter)	

3. AERODROME ACTIVITIES

3.1 State category of licence required as defined in Aircraft Rules 1937?

PUBLIC USE ☐ PRIVATE USE ☐

3.2 In case of private aerodrome, indicate the purpose for which the aerodrome will be used e.g. joy rides, air displays, miscellaneous instructional flying, private flying etc.

Whether your own aircraft only will use the aerodrome

YES ☐ NO ☐

or

do you propose to use the aerodrome by own aircraft as well as other aircraft ?

YES ☐ NO ☐

If use by others aircraft, state whether prior permission or notice is required.

YES ☐ NO ☐

3.3 Is a licence for NIGHT USE/ ALL WEATHER required?

YES ☐ NO ☐

3.4 If the answer to 3.3 above is YES, Please provide details of proposed lighting alongwith the lighting plan.

3.5 Please provide details of proposed CNS-ATM facilities.

3.6 Please provide details of proposed MET facilities;

3.7 Please give details of other proposed aviation activities (for example gliding, parachuting, micro lights).

3.8 Type and maximum total weight of the largest / heaviest aircraft for which the aerodrome is designed, including overall length and maximum fuselage width.

TYPE	
WEIGHT	
LENGTH	
WIDTH	

4. CONTROL OF THE AERODROME

Are you the owner of the aerodrome site

YES ☐ NO ☐

IF NO – Please state:

4.1 Details of the rights you hold over the land

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4.2 The period for which you hold these rights, including terminating date

FROM	TO	TERMINATION

5. PERMISSIONS AND APPROVALS *(Attach the attested copies, if not submitted earlier with CA93)*

NAME AND ADDRESS OF AUTHORITY	DATES AND REFERENCE OF APPROVAL
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5.1 Ministry of Defence;	
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5.2 Ministry of Home Affairs;	
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5.3 Owner of the land	
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5.4 Local authority such as municipal corporation / committee or urban land development Board/authority of the State or its Country and Town Planning Department.	
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6. AERODROME MANGEMENT PERSONNEL

6.1 Board Member/ Managing Director or person having specific responsibility for safety.
(To be completed only where the applicant is a company/ corporate/society)

Name	
------	--

Status/ Designation	
---------------------	--

Telephone number	
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- 6.2 The person in charge of day to day operation of aerodrome.
(Please enclose a current Curriculum Vitae [CV])

Name	
Status/ Designation	
Telephone number	

- 6.3 The person responsible for Aerodrome Safety.
If different from 6.2 (Please enclose a current Curriculum Vitae [CV])

Name	
Status/ Designation	
Telephone number	

- 6.4 Provider of the CNS - ATM

Name	
Address	

- 6.5 Provider of the MET services

Name	
Address	

- 6.6 The person responsible for overseeing the day to day provisions of the Air Traffic Management

Name	
Status/ Designation	
Telephone number	

6.7 The person responsible for overseeing the day to day provisions of CNS

Name

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Status/ Designation

--

Telephone number

--

6.8 The person responsible for overseeing the day to day provisions of RFF

Name

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Status/ Designation

Telephone number

6.9 The person responsible for overseeing the day to day provisions of MET services

Name

 JYVÄSKYLÄN YLIOPISTO
 UNIVERSITY OF JYVÄSKYLÄ

Status/ Designation

Telephone number

7. AERODROME MANUAL

7.1 Is an Aerodrome Manual enclosed with this application? (*Ref Rule 81*)

YES ☐ NO ☐

7.2 If no please indicate when this is likely to be submitted to DGCA.
(Note: An Aerodrome Licence will not be granted until an acceptable aerodrome Manual has been received by DGCA)

8. DETAILS OF FEES

8.1	Reference No.
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8.2 Amount
(Attach a sheet showing the calculation of amount as per runway length)

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8.3 Date:

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9. ANY OTHER INFORMATION: *(the information may include details in annex 1, 2 & 3)*

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

SIGNATURE OF APPLICANT

DATE.....

NAME.....
(in capital letters)

POSITION HELD.....
(with official seal)

- Note:
- 1. Application not completed in all respect and not accompanied with relevant enclosures is likely to be rejected.
 - 2. The application shall be signed by the owner of the company. In case of any other person authorized by the owner, authorization should be attached with the application.
 - 3. It is an offence to make any false representation with the intent to deceive, for the purpose of procuring the grant of an aerodrome licence.

SCHEDULE FOR ISSUE OF AERODROME LICENCE

(In triplicate)

1.	NAME OF THE AERODROME				
2.	STATE CATEGORY OF AERODROME		PUBLIC USE ☐	PRIVATE USE ☐	
3.	STATE AERODROME REFERENCE CODE (As per CAR Series-B, Part-I, Table 1-1)		CODE NUMBER ☐	CODE LETTER ☐	
4.	AERODROME REFERENCE TEMPARATURE				
5.	AERODROME REFERENCE POINT				
5.1	Latitude / longitude of the Aerodrome reference point		° ' ° '' N ° ' ° '' E		
5.2	Elevation of the Aerodrome reference point (AMSL)		Feet (.....meter)		
6.	PHYSICAL CHARACTERISTICS				
	RUNWAY DESIGNATION 				
6.1	LENGTH				
6.2	WIDTH				
6.3	RWY END ELEVATION	ftm			
6.4	RWY SURFACE				
6.5	ACN/ PCN (attach certificate and cross-sectional drawing of pavement)				
6.6	FRICTION VALUE (attach certificate)				
6.7	RWY SLOPES				
	i) Longitudinal				
	ii) Transverse				
6.8	RWY SHOULDER				
	i) Width				
	ii) Transverse slope				
	iii) strength				
	iv) surface				
	v) slope-also note sharp shoulders				
6.9	TURNPAD				

6.10	BASIC STRIP				
	i) Width				
	ii) Length				
	iii) Longitudinal slope				
	iv) Transverse				
	v) Grading				
6.11	RESA (Dimensions)				
	i) Length x Width				
	ii) slope				
	iii) strength & grading				
6.12	CLEARWAYS				
	i) Length x Width				
	ii) slope				
	iii) strength & grading				
6.13	STOPWAYS				
	i) Length x Width				
	ii) slope				
	iii) strength & grading				
6.14	TORA				
6.15	TODA				
6.16	ASDA				
6.17	LDA				
NOTE: Attach Drawings of aerodrome showing the details of runways, thresholds, taxiways, aprons, etc.					

7.	DETAILS OF TAXIWAYS (attach separate sheets, if required)				
	TAXIWAY DESIGNATION ✈				
7.1	TAXIWAY STRIP				
7.2	SHOULDER				
7.3	STRENGTH (attach certificate and cross-sectional drawing of pavement)				
7.4	SLOPE				

8.	APRONS (attach separate sheets, if required)			
	APRONS			
8.1	SIZE			
8.2	STRENGTH (attach certificate and cross-sectional drawing of pavement)			
8.3	SLOPE			
8.4	NO. OF BAYS			
8.5	AIRCRAFT STAND CLEARANCE			
8.6	ISOLATED AIRCRAFT PARKING POSITION			

9.	VISUAL AIDS FOR NAVIGATION (Enclose marking plan for all the runways.)			
9.1	MARKINGS on RUNWAYS			
a)	DESIGNATION			
b)	CENTERLINE			
c)	THRESHOLD			
d)	RWY END			
e)	AIMING POINT			
f)	TOUCHDOWN ZONE			
g)	SIDE STRIP			
h)	TURNPAD			
i)	HOLDING POSITION, if provided			
j)	MANDATORY INFORMATION MARKING			
k)	INFORMATION MARKING			

9.2	MARKINGS on TAXIWAYS			
a)	CENTRELINE			
b)	SIDE STRIP			
c)	TWY HOLDING POSITION			
d)	INTERMEDIATE HOLDING POSITION			
e)	INFORMATION MARKING			

9.3	APRONS			
a)	APRON SAFETY LINES			
b)	AIRCRAFT STAND			

c)	INFORMATION MARKING			
	(Attach separate sheet if required)			

9.4	OTHER MARKINGS			
a)	ROAD HOLDING POSITION			
b)	VOR AERODROME CHECK POINT MARKING			
c)	ALTIMETER CHECK POINT			

9.5	LANDING 'T' LOCATION AND COLOUR		
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9.6	WIND DIRECTION INDICATOR			
	i) Location			
	ii) colour			
	iii) Swings freely			

9.7	SIGNAL SQUARE (Details of size & signages provided)		
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9.8	Aerodrome beacons	
9.9	Aerodrome identification beacon	
<i>Note: Attach details of frequency of flashes, code, colour, vertical light distribution, intensity etc.</i>		

10.	LIGHTING			
10.1	RUNWAYS			
a)	Runway edge lights			
b)	Runway threshold / wing bar lights			
c)	Runway end lights			
d)	Runway Center line lights			
e)	Runway touchdown zone lights			
f)	Runway turn pad lights			
g)	Runway guard lights			
h)	Stopway lights			
i)	Runway threshold identification lights			
<i>Note: Attach the details of intensity control provided.</i>				

10.2	TAXIWAYS☞				
a)	Center line lights				
b)	Edge lights				
c)	Apron taxiway lights				
d)	Road holding position light				
e)	Stop bars				
f)	Intermediate holding position lights				

10.3	APRON☞				
a)	Flood lighting				
b)	Visual docking guidance system, where provided				
c)	Aircraft stand maneuvering guidance lights				
d)	Lighting of obstacles (Inside aerodrome)				

10.4	Landing – T				
10.5	Wind Direction Indicator				

10.6	APPROACH LIGHTING SYSTEM				
	RUNWAYS☞				
a)	Simple approach lighting system				
b)	Precision approach light (Category)				
c)	Lead-in lights				

10.7	Emergency lighting/ Secondary Power Supply to meet the type of operation and switch over time				
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Note: Enclose lighting plan for all lighting system and certify that they are meeting the respective requirements of intensity, coverage etc.

11.	VISUAL APPROACH SLOPE INDICATOR SYSTEMS				
	RUNWAYS☞				
11.1	PAPI				
11.2	SLOPE angles				
11.3	CALIBRATION Date (attach calibration certificate)				

12.	SIGNAGES				
12.1	Mandatory instruction signs				
a)	No entry				
b)	Runway designation				
c)	Runway holding position				
d)	Cat-I, II or III holding position				
e)	Road holding position				
f)	VOR check point sign				

12.2	Information signs				
a)	Runway exit sign				
b)	Intersection take off sign				
d)	Location and direction sign				

12.3	Aerodrome identification sign				
12.4	Aircraft stand identification signs				

13. OBSTACLE LIMITATION SURFACES

Enclose obstacle limitation charts including type 'A' chart for the aerodrome including the details of obstructions, which are marked and lighted.

13.1	Objects in operational areas and their frangibility				
a)	Runway Strip				
b)	Stopway				
c)	Clearway				
d)	RESA				

13.2 OBSTACLES

POSITION OF OBSTACLE	HAZARD TO FLYING	INTERFERENCE TO NAVIGATION AIDS	MARKING OF OBSTACLE

8.	APRONS	(attach separate sheets, if required)
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14.	RESCUE AND FIRE FIGHTING	
14.1	AERODROME CATEGORY	
14.2	NO. OF TRAINED PERSONNEL	
14.3	RFF EQUIPMENTS REQUIRED AND AVAILABLE	
14.4	AVAILABILITY OF WHETHER RESCUE EQUIPMENT	
14.5	AVAILABILITY AND POSITION OF HYDRANTS/ WATER RESERVOIRS	

15.	GENERAL INFORMATION	
15.1	Boundary wall as per BCAS requirements and Security lighting	
15.2	No. of access gate	
15.3	Drainage system	
15.4	Terminal building with capacity and passenger facilities	

16.	DOCUMENTS	
16.1	Aerodrome Manual	
16.2	Aerodrome emergency planning	
16.3	Disabled aircraft removal plan	
16.4	Bird hazard reduction plan	
16.5	Apron management service	
16.6	Aerodrome vehicle operations	
16.7	Surface movement guidance and control systems	

17. Compliance status of Annex 14

This is to certify that all SARPS applicable in respect of this aerodrome has been complied with or a list of Deviations from SARPS in respect of the aerodrome is enclosed.

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

DATE.....

NAME.....
(in capital letters)

POSITION HELD
(with official seal)

SIGNATURE OF APPLICANT

- Note:
1. Application not completed in all respect and not accompanied with relevant enclosures is likely to be rejected.
 2. The application shall be signed by the owner of the company. In case of any other person authorized by the owner, authorization should be attached with the application.
 3. It is an offence to make any false representation with the intent to deceive, for the purpose of procuring the grant of an aerodrome licence.
 4. Annexure I, II & III are informative and may be filled up as applicable for aerodrome.

- [illegible]

It is certified that no change in the physical characteristics of the aerodrome including the erection of new buildings and alterations to the existing buildings or to visual aids at the aerodrome have been made without prior approval of the DGCA since the issue/ last renewal and approved changes in the aerodrome facilities have been duly incorporated in the Aerodrome Manual wherever necessary.

SIGNATURE OF APPLICANT

DATE.....

NAME.....
(in capital letters)

POSITION HELD
(with official seal)

- Note:*
- 1. Application not completed in all respect and not accompanied with relevant enclosures is likely to be rejected.*
 - 2. The application shall be signed by the owner of the company. In case of any other person authorized by the owner, authorization should be attached with the application.*
 - 3. It is an offence to make any false representation with the intent to deceive, for the purpose of procuring the grant of an aerodrome licence.*

SCHEDULE OF INSPECTION FOR RENEWAL OF AERODROME LICENCE

Name of Aerodrome: _____

Date of Inspection: _____

S. No.	PHYSICAL CHARACTERISTICS	OBSERVATIONS	ACTION TAKEN
1.	GENERAL		
a.	Latitude and Longitude		
b.	Local Land Marks		
2.	PHYSICAL CHARACTERISTICS		
a.	Availability of current AIC (s) / Drawings showing the details of runways, displaced thresholds, taxiways, aprons, etc.		
b.	Declared Distances for each runway		
c.	The condition of the runway surface. (Cracks, holes, bumps, low spots, vegetation etc.)		
d.	Details of obstructions		
	i. along the border of the landing area		
	ii. surrounding the aerodrome		
e.	undulation or other possible obstacles		
f.	The general slope of the ground		
g.	Pavement Lip		
h.	Operational fence/walls and wildlife menace.		
i.	Is the aerodrome liable to be unserviceable after rain?		
j.	Adequacy of the curves provided at the Junction of runways and taxiways		
k.	Any special precautions necessary when approaching or taking-off and the conditions under which precautions are necessary		
l.	Mention any physical features in the vicinity which might cause the formation of down drafts or eddies		
m.	Status of visual ground aids.		
n.	Availability of space for air Conditioning, power units, trestles, ladders and ramp equipment etc.		

o	Apron discipline		
p.	ATC/ follow me jeep availability and serviceability of RT		
q	Display of Sign boards		
r.	Check whether openable gates are available at both ends of runway in take-off and approach direction		
s.	Check whether cooling pit is provided at suitable location for keeping suspected items		
t.	Check whether isolated aircraft parking stand is provided for aircraft under Bomb Threat.		
3.	SAFETY AREAS		
a.	Any hazardous ruts/ humps/ erosion/ depression or variation from the normal smooth surface		
b.	Ensure that there is no object in the safety area except for those that are required because of their function, such as runway light sign or navigational light)		
c.	Drainage/Construction		
d.	Objects/Frangible base		
e.	Ensure that manhole and hand hole covers are at grade levels and mounts for light fixture are at grade levels		
4.	MARKINGS AND SIGNS		
a.	Check markings for correct colour coding, peeling, blistering, chipping and fading.		
b.	Check signs to ensure they are of the correct colour coding, easy to read and that all lights are working and not obscure by vegetation, dirt snow etc.		
c.	Check all taxi way hold position markings and runway designation signs are in good condition, clearly visible and the sign lights are working.		
d.	Check signs to ensure they are frangible mounted.		
e.	Check that the signs are not missing and they have correct legend and orientation with no broken panels.		
5.	LIGHTING		
	Check to ensure that the following are operable if installed, and that the optical systems are not obscured by vegetation or deposits of foreign		

	material.		
a.	Runway and taxiway edge lights		
b.	Apron edge lights		
c.	Runway centre line and touched down zone lights		
d.	Taxiway centre line lights		
e.	Guidance signs		
f.	Flood lights		
g.	Obstruction lights		
h.	Lightning in fuel storage area		
i.	Details of aerodrome obstructions lighted with fixed red light or other form of lighting.		
j.	Are portable red lights available for marking obstructions on the landing area immediately by nights		
k.	Are lights available for marking runways		
l.	Ensure that runways and taxiway lights and runway threshold lights are the proper colour and are oriented correctly		
m	Check the lights are functioning properly through the manual or radio control features and that photocell controls function properly		
6.	NAVIGATIONAL AIDS		
a.	Check the segmented circle is clear of vegetation and that it can be seen easily from the air.		
b.	Check the airport rotating beacon is visible and working properly		
c.	Check the wind cone to ensure that it swing freely and, if lighted, that all lights are operating		
d.	Check the Runway End Identifier Lights (REIL's) are mounted on frangible couplings		
e.	Check visual glide slope Indicators (VASI's, or PAPI's) to ensure that their lights are working and mounted on frangible couplings. Also check the lights are not obscured by vegetation or any other obstruction.		
f.	Check the date of last ground calibration and flight calibration of Visual Glide Slope Indicators.		
g.	Check calibration found within limits, if not give details.		

7.	MAINTENANCE OF NAVIGATIONAL AIDS		
	Check whether the records of proper maintenance has been maintained with respect to all Navigational facilities/ equipment including last calibration result (where applicable)		
a.	Instrument landing system		
	Glide path		
	Localizer		
b.	DVOR/VOR		
c.	DME		
d.	NDB		
e.	Outer / inner markers		
f.	Radar		
8.	AIR TRAFFIC CONTROL		
a.	General tidiness, serviceability of air conditioners and presentation of the Air Traffic Service Units.		
b.	Availability of the relevant ICAO documents, DARA Circulars, AIC's, NOTAMs, Air Safety Circulars etc.		
c.	Display of landing and instrument approach charts.		
d.	The Duty officer's log book.		
e.	The operation of ATS units and provision of Air Traffic Services.		
f.	Availability of updated instructions regarding Search and rescue and Air Safety Circulars to deal with the situation in the event of aircraft accident/incident		
g.	Display of the list of medical practitioners, who would be available in case of an emergency, together with their addresses and telephone numbers in the Control Tower		
9.	Communications		
	Check the following		
a.	Serviceability/reliability status of navigation aids.		
b.	Serviceability/reliability status of air/ground communication facilities (VHF, HF etc.).		
c.	Inter-Unit communication and adequacy thereof		
d.	Direct speech circuit for serviceability and reliability.		
e.	Last date of ground /air calibration of		

	Navigation and air /ground communication equipment and the date when next due		
f.	Check quality or recording		
10.	METEOROLOGY		
a.	Check the services provided and their adequacy		
b.	Check whether Met reports are received expeditiously by A.T.S. unit		
c.	Serviceability status of Met equipment.		
11.	OBSTRUCTIONS:		
a.	Check construction underway on or near the airport that could affect aircraft operations		
b.	Check if the construction equipment especially tall cranes etc. being used at construction sites are forming any obstruction		
c.	Check obstructions are properly marked and lighted		
12.	FUELLING OPERATIONS		
a.	Check the location of Aviation Fuel Station (AFS) vis – à - vis Terminal building and other installations.		
b.	Check the AFS including security, fire protection, general housekeeping fuel dispensing facilities and procedures		
c.	Check grounding clips and cable to ensure they are available in good condition		
d.	Check to ensure that the appropriate signs for the AFS are installed and that all gates are capable of being closed and locked.		
e.	Check the AFS is clean, not littered with debris, vegetation is not growing in or around the area, and presence of any flammable material		
f.	Check the “NO SMOKING” Sign are prominently displayed at various places in the AFS		
g.	Check whether any fire in the AFS is likely to endanger the Terminal Building and other installations.		
13.	CONSTRUCTION		
a.	Check the following level of safety is maintained under construction activities on the airport		
b.	Check stockpiled materials and		

	construction materials are properly stored to keep them from being moved by wind, jet blast or prop wash		
c.	Check all construction adjacent to movement area to ensure areas are identified with conspicuous markings and lightning.		
d.	Check heavy construction equipment (such as bull dozers, cranes, etc.) are marked and lighted and parked clear of the safety areas.		
e.	Check to determine that stockpiles and stores equipment are not left in the safety area		
f.	Check to ensure that debris and foreign objects are continuously being picked up around construction		
14.	AIRCRAFT RESCUE AND FIRE FIGHTING:		
a.	Check aircraft rescue and fire fighting equipment availability.		
b.	Check all required fire-fighting trucks are in operable condition and adequate crews are available.		
c.	Check to ensure communication systems are operable		
d.	Check the adequacy of the fire fighting agents on hand		
e.	Check the crew are familiar with the aircraft emergency exits		
f.	Check the fire station has lay out of the aircraft operating to and from the airport showing location of doors, engines and emergency evacuation from aircraft		
g.	Check Ambulance has all necessary First-Aids facilities and medicines within prescribed life.		
h.	Check adequate communication facilities exists for direct communication between fire station, watch tower and ATC		
i.	Check adequate communication facilities exists to communicate in an emergency from watch tower to fire crew.		
j.	Check whether public address system is available.		

k.	Check whether static water tank with water available indicate capacity.		
l.	Check the position of fire hydrants.		
m.	Check grid map displayed in fire station, control tower and each C FT		
n.	Check whether RT is fitted in each crash fire tenders		
15.	PUBLIC PROTECTION:		
	Check gates, fencing, locks etc. for security		
16	ACCOMMODATION:		
a.	Watch Hours and arrangements outside these hours.		
b.	Facilities for picketing aircraft in the open.		
c.	Check in respect of each hangers		
d.	Pigeon proofing.		
e.	Adequacy of fire extinguishers provided		
17	MEDICAL FACILITIES		
a.	Check the nature of the medical facility available.		
b.	Check the arrangements for dealing with injuries.		
c.	Check the nature of the 'crash' equipment provided.		
d.	Check the availability of the doctor.		
18	LOCAL REGULATIONS ETC.		
	Check particulars of any restrictions on flying in the neighbourhood of the aerodrome.		
19.	WILD LIFE HAZARD		
a.	Check any wild life such as large flocks of birds or animals hazards on or adjacent to the airport.		
b.	Can animals stray or grazed on the landing area? If so what are the arrangements available for clearing the landing or grazing of animals.		
c.	Check the height of the grass on the side strip.		
d.	Provide details on AEMC meetings held and status of implementation of recommendations, Wild Life Hazards management etc.		
20.	PASSENGER FACILITATION		
a.	Check whether the all passenger facilities are available and properly		

	maintained :		
b.	Seating arrangement in terminal building including sterile area		
c.	Arrangement and availability of drinking water.		
d.	Availability of snack bar/Restaurant		
e.	Proper maintenance of toilets/dustbins		
f.	Availability and serviceability of Public telephone booth/STD/ISD.		
g.	Availability and serviceability of PA system		
h.	Proper positioning of serviceable fire extinguisher in Terminal building including appropriate signage of fire points & escape routes in emergency		
i.	Adequacy of sign board		
j.	Complaint book with Terminal manager & action taken on these complaints		
k.	Availability of Tourist Information Centre/ Inquiry counter/Assistance booth		
l.	Adequacy and serviceability of X-ray baggage system/HHMD/Conveyer belt / Escalator.		
m.	Air conditioners, ventilation, emergency exits.		
n.	Adequacy of counters and weighing machines and their last calibration done		
o.	Flight information display adequacy.		
p.	Availability of vehicle parking stand		
21.	ANY CHANGES IN THE DOCUMENTS		
a.	Aerodrome Manual		
b.	Aerodrome emergency planning (including details of exercises during intervening period)		
c.	Disabled aircraft removal plan		
d.	Bird hazard reduction plan		
e.	Apron management service		
f.	Aerodrome vehicle operations		
g.	Surface movement guidance and control systems		

22.	STATUS OF TEMPORARY EXEMPTIONS/PENDING ITEMS OF PREVIOUS INSPECTIONS	
	Including details of any new exemptions arising during the intervening period	
23.	SAFETY MANAGEMENT SYSTEM	
	Provide details like implementation status/ Internal Audit by safety manager/ Review of operating procedures/ analysis and implementation of Accident/ incident investigation etc.	
24.	CHANGE IN ORGANIZATION STRUCTURE	
	Provide details on changes in the management and key personnel responsible for operation and management of aerodrome including system of ensuring adequacy of incumbent by management	
25.	INTRODUCTION OF NEW FACILITIES	
	Provide details on date, procedure and compliance of applicable regulations for commissioning, including acceptance by appropriate level in management	
26.	ANY OTHER OBSERVATIONS	

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

SIGNATURE OF APPLICANT

DATE.....

NAME.....

(in capital letters)

POSITION HELD.....

(with official seal)

- Note:
1. Application not completed in all respect and not accompanied with relevant enclosures is likely to be rejected.
 2. The application shall be signed by the owner / authorized person of the company.
 3. It is an offence to make any false representation with the intent to deceive for the purpose of procuring an aerodrome license.

INFORMATION ON THE AIRPORT SERVICES

1. CUSTOMS/IMMIGRATION/HEALTH (IN CASE OF INTERNATIONAL AIRPORT)

Information on these facilities at the airport should be provided by the concerned aerodrome managements which shall include information about the number of counters for customs, immigration and health-clearance of passengers.

Health facilities in accordance with the requirements of the Aircraft (Public Health) Rules 1954 shall be established. Information on the facilities provided at the airport including the number of Health Counters available, First Aid facilities, Ambulance and doctors available shall be given. Details of the quarantine facilities for plant, animal and human shall also be included.

2. SECURITY

Procedures for security check of passengers and their hand baggage inside the terminal building and the system/ procedure for checking the entrance of passengers, visitors and other pre boarding anti hijacking check should be formulated normally in accordance with the standards and recommended practices of Annex 17 of ICAO and the instructions of the BCAS and Home Ministry Circulars. Arrangements for guarding the vital installations at the airport serving the ATC Services and other Navigation and Landing Aids. Security coverage shall be in accordance with ICAO requirements as well as that of Ministry of Home Affairs. Information on the following shall be provided:

- i. System of checking the entry of passengers and visitors inside the terminal building.
- ii. Provision of anti hijacking control room and facilities provided therein.
- iii. Availability of;
 - a) Hand held metal detectors,
 - b) Door frame metal detector,
 - c) X-Ray machine for screening hand baggage and the Checked in baggage,
 - d) Dog squad,
 - e) Bomb disposal unit,
 - f) Isolation bay,
 - g) Cooling Pit.

3. PASSENGERS / VISITORS

Give particulars of the following or any other accommodation provided for passengers and the pilots stating hours open in each case:

- i. Waiting Room
- ii. Lavatories
- iii. Hotel
- iv. Restaurant
- v. Parking of vehicles
- vi. Transport available to and from the Aerodrome (Car, Railways, Omnibus, etc.)

4. CARGO HANDLING

Information on cargo handling facilities, such as existence of a separate cargo terminal, annual/ peak hour cargo handling capacity, separate cargo bays and warehousing facilities.

FACILITIES FOR AIRCRAFT**1. REFUELLING**

Information on physical location of the fuel tanks, their capacity and the type of refueling facility – hydrant or bowser particularly from the view point of safety of terminal building and other adjoining facilities should be given. The names and addresses with Telephone No. of the agencies having AFS at the aerodrome shall also be given.

Safety precautions/ measures to be taken during refueling at an AFS as well as the emergency procedures for handling AFS fires shall also be established.

2. ACCOMMODATION

- i. Facilities for picketing aircraft in the open.
- ii. State in respect of hangers, if available
 - a) Length
 - b) Breadth
 - c) Head room (door height)
 - d) Width of doorway
 - e) Structure (material)
- iii. Hanger accommodation normally available to visiting aircraft

NAVIGATIONAL AND LANDING FACILITIES FOR SAFETY AND REGULARITY OF AIRCRAFT OPERATIONS**1. PUBLIC USE AERODROME**

In so far as the aerodrome is open for public use of aircraft for carrying passengers for hire and reward, at least the following Navigational Aids and Visual Aids shall be provided:

A. FOR OPERATION BY DAY

1. Non-Directional Beacon / VOR for navigational guidance.
2. Instrument approach procedures for IFR flights
3. Visual approach slope indicator systems as applicable.

B. FOR OPERATIONS BY NIGHT

1. In addition to the aids mentioned in A above, Aeronautical ground lights including simple approach lights may also be provided to support night operations, including lighting of significant obstacles.
2. Where the terrain conditions or the weather conditions so demand, precision approach procedure may also be provided to support regularity of scheduled operations.

2. PRIVATE USE AERODROME

For aerodromes licensed for private use, requirement of facilities listed above will be decided on the basis of intended operations.