TECHNICAL GUIDANCE MATERIAL for Registration of Category Z Aerodromes

SUBJECT: **TECHNICAL GUIDANCE MATERIAL FOR REGISTRATION OF CATEGORY Z AERODROMES**

EFFECTIVE DATE: **26 August 2025**

APPLICABILITY

This technical guidance material is applicable to aerodromes that are required to be registered with the SACAA in terms of SACAR 139.06.2.

PURPOSE

This advisory circular aims to provide technical guidance to aerodrome operators that operate at unlicensed aerodromes as contemplated in SA CAR 139.06.1(1) for the purpose of enhancing a basic level of safety under the duty of care at such aerodromes.

1. REFERENCED DOCUMENTS:

i. SA CAR 139

2. ABBREVIATIONS & DEFINITIONS:

TERM	DEFINITION
Aerodrome	Defined area on land (including any buildings, installations and equipment) intended to be used either wholly or in part for the arrival, departure and surface movement of aircraft.
Category Z Aerodrome	An aerodrome that is not required to be licensed in terms of SA CAR 139 Subpart 2 however where mandatory registration is a requirement.

ABBREVIATION	DESCRIPTION
E:AI	Executive: Aviation Infrastructure
M:CAT Z & H	Manager: Category Z Aerodromes and Heliports
SACAA	South African Civil Aviation Authority
SM: ADFA	Senior Manager: Aerodromes and Facilities
E:AI	Executive: Aviation Infrastructure
M:CAT Z & H	Manager: Category Z Aerodromes and Heliports

3. RECOMMENDATIONS:

3.1. Runways, taxiways and apron(s)

3.1.1. The length of the runway provided, should be adequate for the aircraft type intended to use the runway.

3.1.2. The runway needs to be capable of supporting the heaviest aircraft likely to use it, manufacturers' recommendations are to be applied.

3.1.3. The runway surface condition should be kept as serviceable and well drained as possible. Hard surfaces should be regularly checked for debris while natural surfaces such as grass should be mown, rolled and kept debris free.

3.1.4. The runway should, wherever possible, be designed such that trees, power lines, high ground or other obstacles do not obstruct its approach and take-off paths.

3.1.5. The width of the runway should be adequate for the aircraft type according to manufacturer's recommendations but not less than twice the width of the main landing gear of the largest or widest aircraft using the runway.

3.1.6. The shoulders and surface of the runway should be maintained in a serviceable condition and be able to carry the weight of the largest aircraft planned for the aerodrome. No furrows, loose stones or obstacles, should be present.

3.1.7. A strip width should be maintained on either side of the runway edge.

3.1.8. A strip length should be maintained before the threshold and beyond the runway end.

3.1.9. A wind direction indicator should be provided in a location visible from all thresholds and be positioned so as to indicate a representative direction and wind strength.

3.1.10. Locations close to trees or buildings or where terrain may cause an unrepresentative wind indication should be avoided.

3.1.11. Ensure the position of the wind direction indicator will not interfere with aircraft taking-off or landing.

3.1.12. The location of roads, buildings and other structures outside the aerodrome perimeter should be considered and the runways aligned to allow safe approaches and departures to be flown without hazarding people or vehicles using such roads, buildings and other structures.

3.1.13. Runway landing area markings may be provided on a registered aerodrome.

3.1.14. The usable parts of hard runways (if all of the hard area cannot be used) and of grass runways may be edged with white rectangular paint markings or marker boards, flush with the runway surface but not exceeding 25 mm, each 3 metres long and 1 metre wide, at intervals of not more than 90 metres.

3.1.15. The dimensions and type should be as described in 3.1.15.1 and 3.1.15.2 below:

3.1.15.1. Gravel or Grass runway

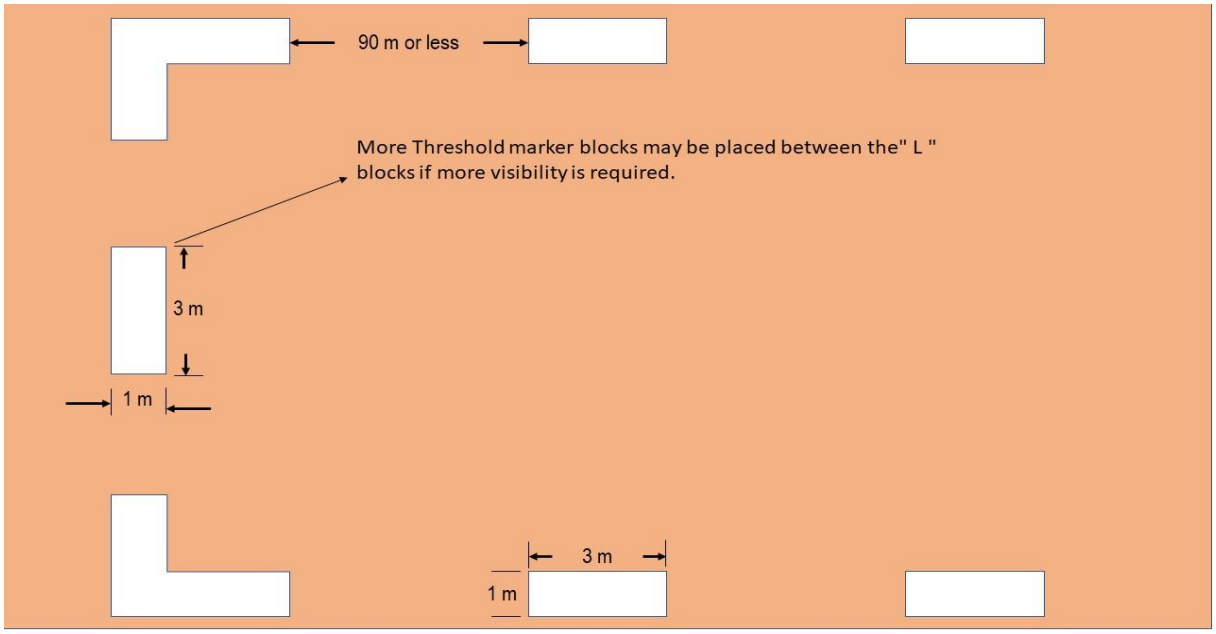

Figure 1: Gravel or Grass runway

Notes: Markers should not protrude more than 25 mm above runway surface and be of such strength that no damage will occur to any aircraft rolling over it.

3.1.15.2. Asphalt runway

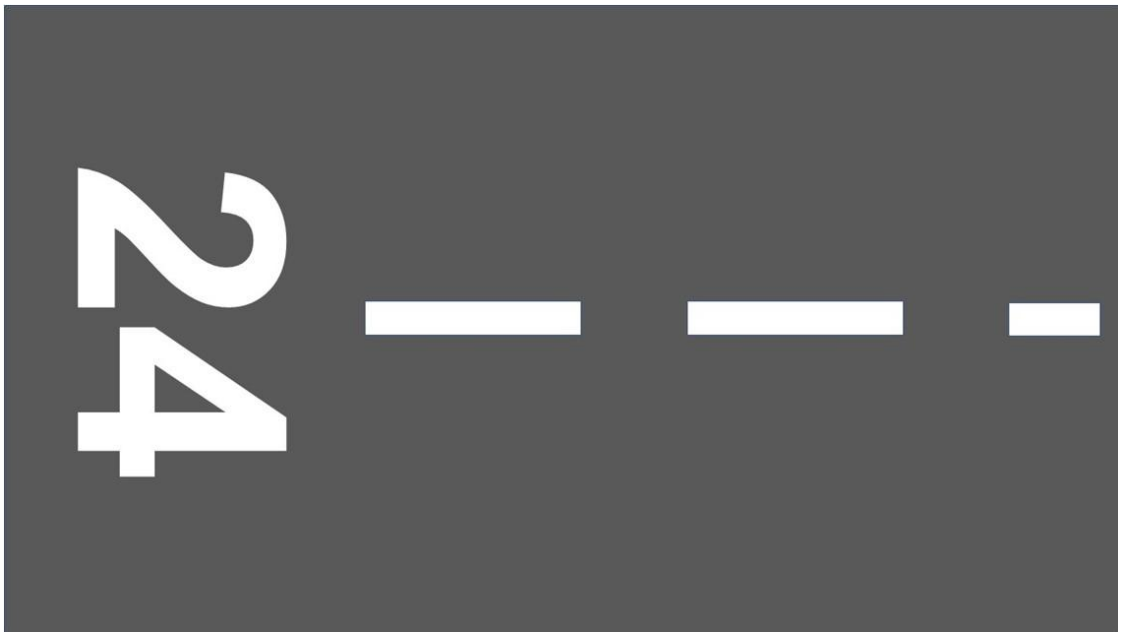

Figure 2: Asphalt runway

3.1.16. A runway designation marking should be provided on a paved runway.

3.1.17. A runway designation marking should be provided on a grass/gravel runway, and it should be placed within the strip length area of the runway. The dimensions of the runway designation markings should be as described in figure 3 below.

3.1.18. A runway centerline should be provided on a paved runway.

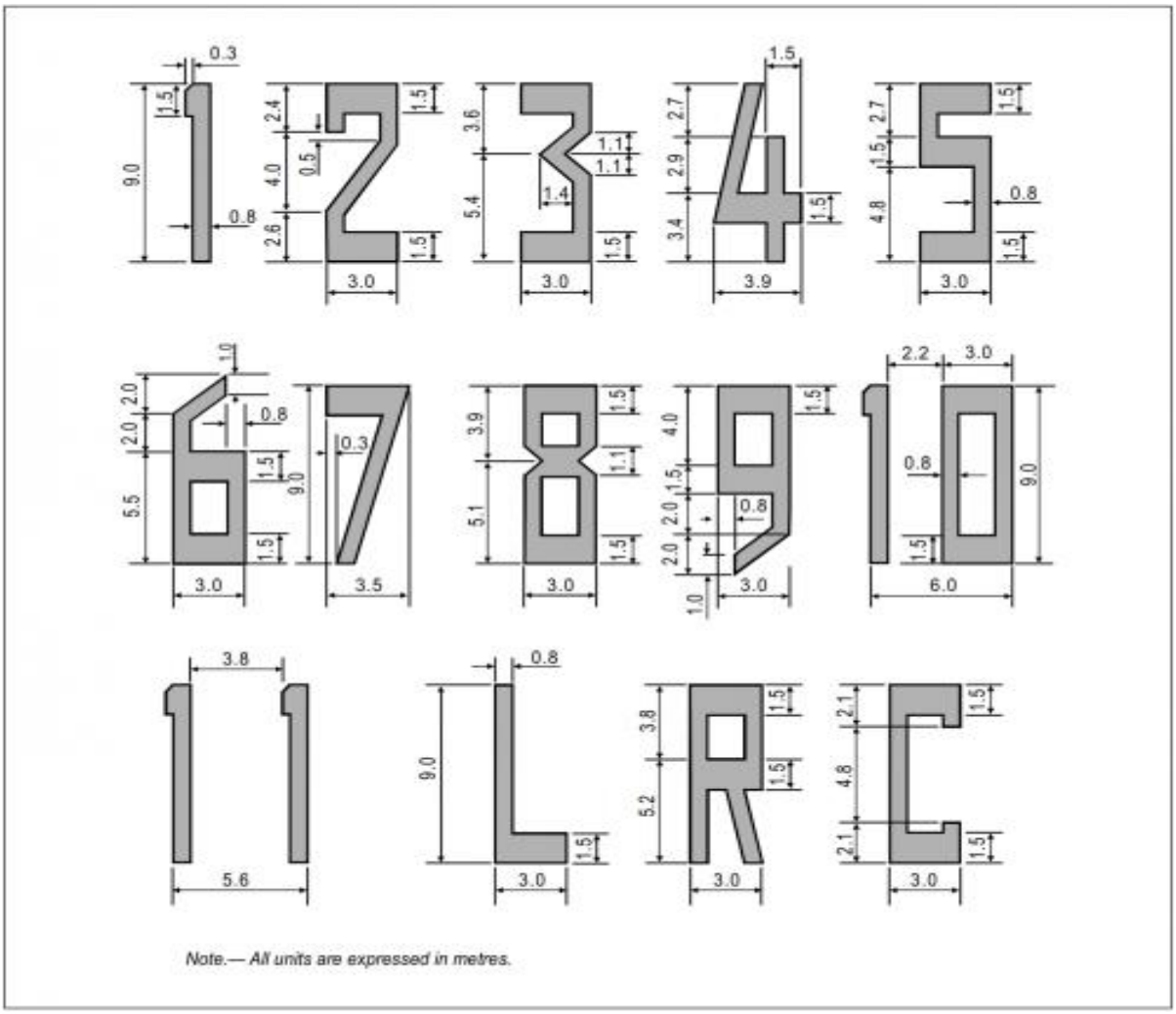

Figure 3: Dimensions of numbers and letters

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4. ELECTRICAL AND LIGHTING

4.1. The majority of registered aerodromes will operate without lighting but there is no limitation on its employment.

4.2. The aerodrome runway lighting may be permanent or portable but should have the light characteristics as detailed below:

4.2.1. Runway edge lighting should be placed along, or within 3 meters of the outside edge of the runway with the lights spaced at intervals of 90 m ± 3 meters

4.2.2. Runway end and threshold lighting should consist of lights evenly spaced at intervals of not more than 3 meters across the threshold and runway end respectively.

4.2.3. All elevated light fittings should be frangible at the base.
4.2.4. In the case of displaced thresholds runway end/threshold lights may be installed as wing bar lights;
4.2.5. Taxiways should be identified at least on one edge or on the centerline, by the use lighting or reflective markers, as should the apron edges, if floodlighting does not adequately illuminate the apron. Reflective edge markers or centerline studs either together or separately may be used instead of taxiway edge lights
4.2.6. Reflective edge markers should be yellow unless they are used to supplement normal taxiway edge lighting or aprons, in which case they should be blue. Centerline studs, if provided should be green.

5. OBSTACLES

5.1. Terrain and obstacles will affect runway design: however, the following should be borne in mind:
5.1.1. Anything that, because of its height or position, could be a hazard to an aircraft landing or taking off, and which cannot be removed, should be conspicuous and marked accordingly.
5.2. No object should be left in a position where it can pose a danger to aircraft landing, taking off or taxiing unless special circumstances warrant it after approval by the Department of Environmental Affairs and Tourism (e.g. rare trees, etc.) and additional measures are employed to clearly identify such obstacles.

6. FENCING AND SECURITY

6.1. The purpose of fencing is to keep stray animals and humans out of the aerodrome area.
6.2. A suitable barrier should be provided or, in the absence thereof, a clearance procedure practiced to achieve the desired effect.

7. EMERGENCY SITUATIONS

The Aerodrome owner/operator should keep emergency contacts at a readily accessible and identified location in the vicinity of the aerodrome.

8. FURTHER GUIDELINES FOR SAFE HOUSEKEEPING REGARDING COMMON PRACTICE DUTIES BY THE HOLDER OF A REGISTRATION CERTIFICATE

8.1. Aerodrome Operator

8.1.1. The Aerodrome Operator is the person responsible for ensuring safety and for maintaining the aerodrome(s) in a serviceable condition.

8.2. The function of the Aerodrome Operator is to notify the SACAA immediately if:

8.2.1. All or part of the runway or runway strip becomes unusable due to the surface becoming too soft to permit the landing or taking off of aircraft;
8.2.2. The surface of the runway is so slippery that it will affect the landing or taking off of aircraft;
8.2.3. The runway is unusable due to cracking or loose material on the surface;
8.2.4. Damage to the surface in the movement area affects the total runway length available;
8.2.5. Maintenance or repair work is to be carried out on the runway, together with dates and times of the maintenance or repair periods;
8.2.6. There is a failure of the aerodrome lighting system.

8.2.7. Anything else occurs that affects the safety of aircraft using the aerodrome.
8.2.8. To inform the SACAA of any change in status of the aerodrome.

9. ACCESS TO REGISTERED AERODROMES

The Aerodrome Operator should exercise control over entry into a registered aerodrome by ensuring that unauthorised people, vehicles or animals are kept away from the movement area.

10. SAFETY INSPECTIONS

10.1. The SACAA may conduct safety inspections on request by the owner to ensure that the aerodrome is in a satisfactory condition as required according to the following guidelines,

10.1.1. The runway inspection will be conducted to ensure that no holes or obstacles are on the landing surface.
10.1.2. To ensure that no obstacles in the strip area or in the end zone.
10.1.3. To ensure that the wind direction indicator is visible, serviceable.
10.1.4. To ensure that taxiways, if provided are clear of obstacles and holes.
10.1.5. To ensure that designated parking areas, if provided are free of debris, or any other dangerous objects.

11. CATEGORY Z AERODROME REGISTER

11.1. The SACAA shall maintain an online register of all registered aerodromes and access to the aeronautical information regarding these aerodromes shall be via the SACAA website on www.caa.co.za.

11.1.1. The register shall contain the following particulars:
11.1.2. The full name and, if any, the trade name of the holder of the registration;
11.1.3. The name and the location of the aerodrome for which the registration was issued;
11.1.4. The reference number of the registration issued to the holder;
11.1.5. Runway(s) orientation, surface, length and width;
11.1.6. Details of services available during hours of operation.
11.1.7. Any specific information the owner wishes to publish i.e. public or private landing allowed, specific restrictions the owner wishes to impose, known obstacles etc.

12. COST

Registration of aerodromes is free, but if an on- site visit is required by the owner / operator, please feel free to request a quote from Hlatshwayobs@caa.co.za, Mmatlim@caa.co.za or Ngcongos@caa.co.za

13. DOCUMENT AUTHORISATION

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END