



Advisory Circular

AC 139-06(0)

JANUARY 2011

USE OF RESTRICTED OPERATION (DUMB-BELL) GROUND SIGNALS

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1. REFERENCES

- CASR 139.170;
- CASR 139.295; and
- MOS Chapter 8, Part 139 – Aerodromes.

2. PURPOSE

This publication provides guidance to Aerodrome Operators on the use of Restricted Operations (Dumb-Bell) signals.

3. STATUS OF THIS ADVISORY CIRCULAR

This Advisory Circular supersedes CAAP 89R-1(1).

Advisory Circulars are intended to provide advice and guidance to illustrate a means, but not necessarily the only means, of complying with the Regulations, or to explain certain regulatory requirements by providing informative, interpretative and explanatory material.

Where an AC is referred to in a 'Note' below the regulation, the AC remains as guidance material.

ACs should always be read in conjunction with the referenced regulations.

4. ACRONYMS

CAAP – Civil Aviation Advisory Publication

CASA – Civil Aviation Safety Authority

CASR – Civil Aviation Safety Regulations 1998

5. BACKGROUND

5.1 CASR 139.175 requires the operator of a certified aerodrome that does not have a continuous air traffic service provided by air traffic control during the day, to provide a signal area in accordance with the standards set out in the Manual of Standards Part (MOS) Part 139—Aerodromes.

5.2 The operator must display an appropriate signal in the signal area in any circumstances set out in MOS 139 that require such a signal to be displayed. The operator must ensure that the signal area and any signal displayed in it are clearly visible to any aircraft intending to use the aerodrome.

5.3 CASR 139.295 requires the operator of a registered aerodrome to comply with the physical characteristics required of a certified aerodrome, including a signal circle and ground signals.

6. WHAT IS RESTRICTED OPERATIONS (DUMB-BELL) GROUND SIGNAL?

6.1 A restricted operations ground signal is a marker, in the shape of a dumb-bell. When displayed within the signal circle, it conveys to pilots in the air the message that aircraft ground operations must be confined to hard surface areas only. MOS-139, Chapter 8 specifies the size, shape, colour and usage of the dumb-bell marker.

7. HOW IS A DUMB-BELL SIGNAL INTERPRETED?

7.1 When a dumb-bell signal is displayed, it means that all aircraft ground movements must be confined to the hard surface. In addition, where there are sealed and gravel surfaces, pilots are required to travel on the sealed surface, and where there is only gravel and natural surfaces, pilots must travel on the gravel surface.

8. USING THE DUMB-BELL SIGNAL

8.1 A dumb-bell signal is a convenient way of signalling to pilots that certain parts of the movement area are unserviceable because they are soft and wet, without the need to mark out all the soft wet surface areas.

8.2 At an aerodrome with only one type of hard surface runway, taxiway, and apron, the display of the dumb-bell signal means stay on the runway, taxiway or apron and do not access any grass or natural surface area. Aerodrome operators must consider the need for cones or other markers to delineate the closed areas of the aerodrome.

8.3 This signal is time-limited, depending on the prevalent weather and ground conditions.

8.4 Care needs to be exercised at an aerodrome with multiple runways of different surfaces, with a natural surface for the secondary runway. The dumb-bell signal will render the secondary runway in-operative, and could deny aircraft usage of the aerodrome should the direction of the wind be unfavourable. When the dumb-bell signal is used, the surface condition of the secondary runway should be closely monitored, and the dumb-bell removed as soon as the area becomes serviceable.

8.5 On the other hand, if a secondary runway is saturated and the surface profile or material will require a lengthy period before the runway can be serviceable, then the dumb-bell signal alone is not enough. Aerodrome operators should display on the runway the unserviceability cross markings at the prescribed locations (refer to MOS-139, Chapter 8) to reduce any chance of inadvertent use of the runway.

8.6 Subjective judgement based on knowledge of local conditions is required to determine whether the markings should be displayed. However if there is any doubt, aerodrome reporting officers should display the unserviceability markings.

8.7 At an aerodrome with two runways, one sealed and the other gravel, and both are serviceable, then use of the dumb-bell signal can cause confusion about the serviceability of the gravel runway. In this case, the dumb-bell marking should not be used, and grass or natural surfaces that aircraft should remain clear of should be marked by unserviceability markers instead and a NOTAM issued.

9. USE OF NOTAM

9.1 At an aerodrome with access to the NOTAM system, MOS 139 requires a NOTAM to be initiated where straight in approaches are conducted as the pilots will not necessarily see the ground signal before landing, and also when operation on an unsealed runway is prevented due to a soft wet surface.

10. ADDITIONAL INFORMATION

10.1 Some aerodromes may have unique surface conditions that are not catered for in this Advisory Circular. In exceptional circumstances, additional aerodrome specific information in relation to the dumb-bell signal may be conveyed to pilots in the notices section of the aerodrome entry in ERSA. This will be assessed on an individual case basis. Aerodrome operators are asked to contact the relevant CASA Aerodrome Inspector if they think there is need for such notification.

11. MAINTENANCE OF DUMB-BELL SIGNAL

11.1 A dumb-bell marker should be displayed correctly, handled and stored properly, and most importantly be provided with a fresh coat of paint when the colour starts to fade. The signal surface area must also be maintained appropriately to ensure contrast between it and the signal marking.

12. CASA CONTACT

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