



## **APPENDIX 7**

# **VISUAL AIDS FOR DENOTING RESTRICTED USE AREAS**



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## VISUAL AIDS FOR DENOTING RESTRICTED USE AREAS

### 1.0 INTRODUCTION

- 1.1 This appendix expands on the requirements of SD-AD chapter 3 pertaining to restricted use areas.

### 2.0 Closed runways and taxiways, or parts thereof

- 2.1 A closed marking shall be displayed on a runway or taxiway or portion thereof which is permanently closed to the use of all aircraft.
- 2.2 A closed marking *should* be displayed on a temporarily closed runway or taxiway or portion thereof, except that such marking may be omitted when the closing is of short duration and adequate warning by air traffic services is provided.
- 2.3 On a runway a closed marking shall be placed at each end of the runway, or portion thereof, declared closed, and additional markings shall be so placed that the maximum interval between markings does not exceed 300m. On a taxiway a closed marking shall be placed at least at each end of the taxiway or portion thereof closed.
- 2.4 The closed marking shall be of the form and proportions as detailed in Figure 1 (Illustration a), when displayed on a runway, and shall be of the form and proportions as detailed in Figure 1 (Illustration b), when displayed on a taxiway. The marking shall be white when displayed on a runway and shall be yellow when displayed on a taxiway.

*Note. — When an area is temporarily closed, frangible barriers or markings utilizing materials other than paint or other suitable means may be used to identify the closed area.*

- 2.5 When a runway or taxiway or portion thereof is permanently closed, all normal runway and taxiway markings shall be obliterated.
- 2.6 Lighting on a closed runway or taxiway or portion thereof shall not be operated, except as required for maintenance purposes.
- 2.7 In addition to closed markings, when the runway or taxiway or portion thereof closed is intercepted by a usable runway or taxiway which is used at night, unserviceability lights shall be placed across the entrance to the closed area at intervals not exceeding 3m (see 3.4.4).

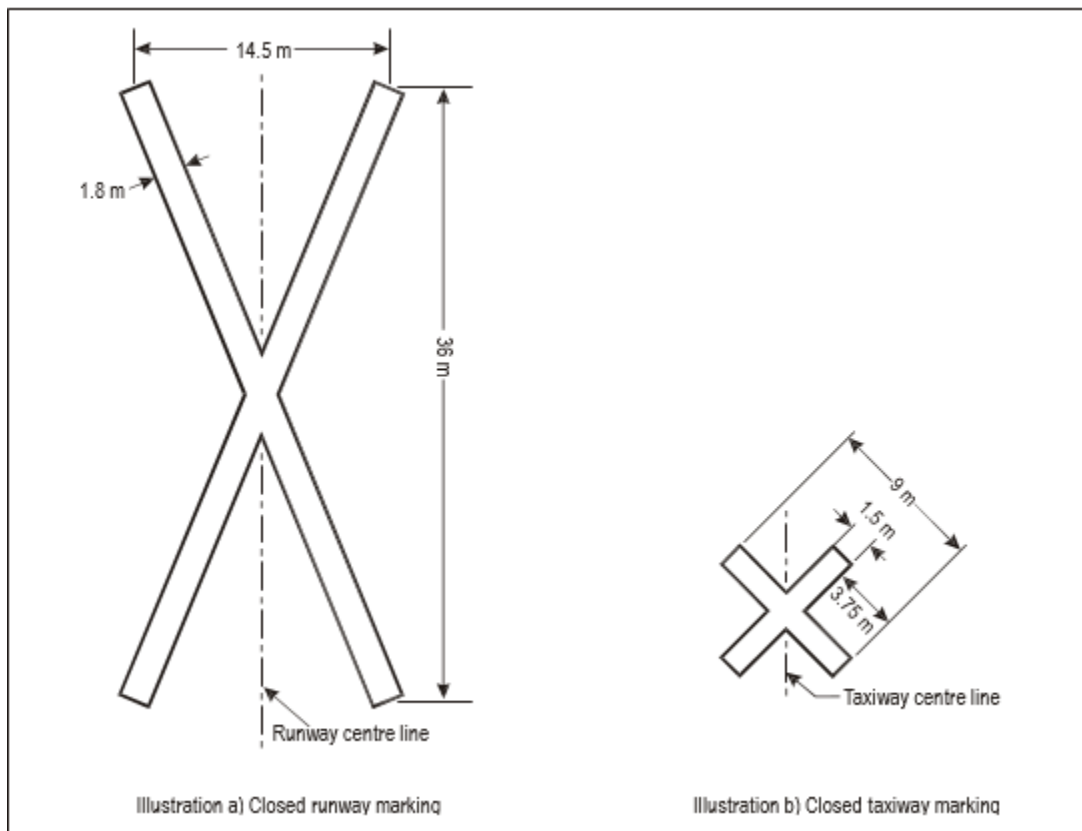


Figure 1 - Closed runway and taxiway markings

### 3.0 Non-load-bearing surfaces

- 3.1 Shoulders for taxiways, runway turn pads, holding bays and aprons and other non-load-bearing surfaces which cannot readily be distinguished from load-bearing surfaces and which, if used by aircraft, might result in damage to the aircraft shall have the boundary between such areas and the load-bearing surface marked by a taxi side stripe marking.
- 3.2 A taxi side stripe marking should be placed along the edge of the load-bearing pavement, with the outer edge of the marking approximately on the edge of the load-bearing pavement.
- 3.3 A taxi side stripe marking *should* consist of a pair of solid lines, each 15cm wide and spaced 15cm apart and the same colour as the taxiway centre line marking.

*Note.* — Guidance on providing additional transverse stripes at an intersection or a small area on the apron is given in the Aerodrome Design Manual (Doc 9157), Part 4.

## 4.0 Pre-threshold area

- 4.1 When the surface before a threshold is paved and exceeds 60m in length and is not suitable for normal use by aircraft, the entire length before the threshold *should* be marked with a chevron marking.
- 4.2 A chevron marking *should* point in the direction of the runway and be placed as shown in Figure 2.
- 4.3 A chevron marking *should* be of conspicuous colour and contrast with the colour used for the runway markings; it *should* preferably be yellow. It *should* have an overall width of at least 0.9m.

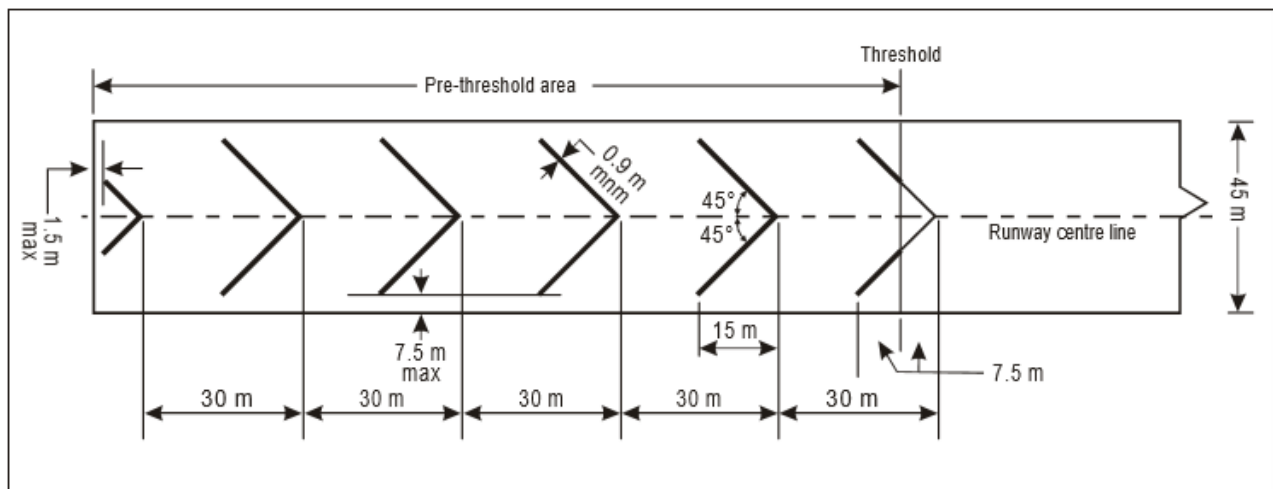


Figure 2 - Pre-threshold marking

## 5.0 Unserviceable areas

- 5.1 Unserviceability markers shall be displayed wherever any portion of a taxiway, apron or holding bay is unfit for the movement of aircraft but it is still possible for aircraft to bypass the area safely. On a movement area used at night, unserviceability lights shall be used.

*Note.* — Unserviceability markers and lights are used for such purposes as warning pilots of a hole in a taxiway or apron pavement or outlining a portion of pavement, such as on an apron, that is under repair. They are not suitable for use when a portion of a runway becomes unserviceable, nor on a taxiway when a major portion of the width becomes unserviceable. In such instances, the runway or taxiway is normally closed.

- 5.2 Unserviceability markers and lights shall be placed at intervals sufficiently close so as to delineate the unserviceable area.

*Note.* — Guidance on the location of unserviceability lights is given in ICAO Annex 14 Attachment A, Section 14.

### Characteristics of unserviceability markers

- 5.3 Unserviceability markers shall consist of conspicuous upstanding devices such as flags, cones or marker boards.

### Characteristics of unserviceability lights

- 5.4 An unserviceability light shall consist of a red fixed light. The light shall have an intensity sufficient to ensure conspicuity considering the intensity of the adjacent lights and the general level of illumination against which it would normally be viewed. In no case shall the intensity be less than 10 cd of red light.

### Characteristics of unserviceability cones

- 5.5 An unserviceability cone *should* be at least 0.5m in height and red, orange or yellow or any one of these colours in combination with white.

### Characteristics of unserviceability flags

- 5.6 An unserviceability flag *should* be at least 0.5m square and red, orange or yellow or any one of these colours in combination with white.

### Characteristics of unserviceability marker boards

- 5.7 An unserviceability marker board *should* be at least 0.5m in height and 0.9m in length, with alternate red and white or orange and white vertical stripes.