

AERODROME MARKERS AND MARKING

The following information details the approved markings which may be displayed on the concrete or sealed surfaces of the runways, taxiways and apron areas at New Zealand aerodromes.

RUNWAY MARKINGS

All runway markings are white. The markings may be edged in black on concrete runways for better definition. A layout of typical precision approach and other runway markings as employed at New Zealand aerodromes is shown in figure 1.

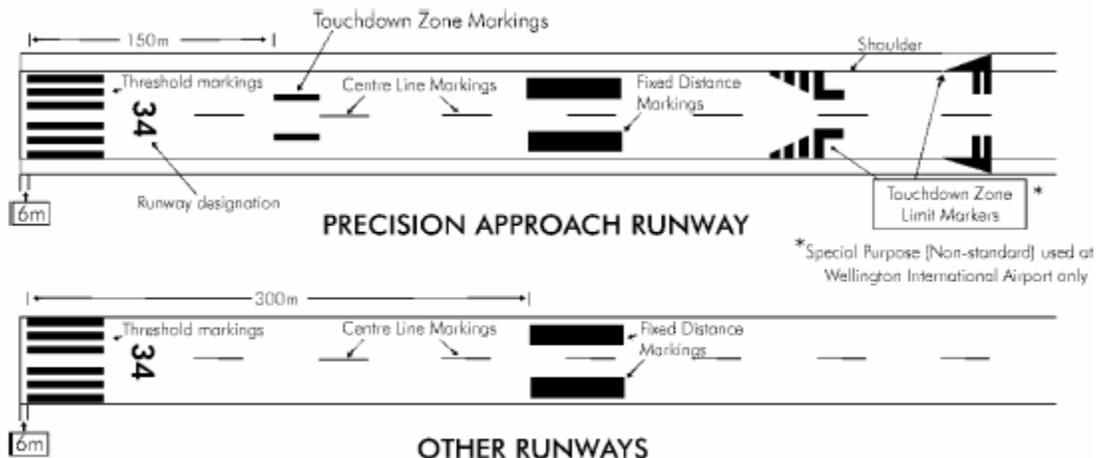


Fig. 1

On unrestricted runways threshold markings comprise a series of broad white stripes placed symmetrically either side of the runway centre line. The stripes normally commence six metres from the end of the runway.

Temporarily displaced landing thresholds are marked with a white stripe across the runway with arrowheads and centreline arrows as shown in figure 2.



TEMPORARILY DISPLACED THRESHOLD

Fig. 2

Where it is necessary to temporarily displace a landing threshold on a normally marked runway, the pattern in figure 2 will not be shown. Instead the displaced threshold will normally be indicated by a wing bar display of white marker boards or coloured cone type markers placed outboard of the runway edge. The unusable portion of runway may be indicated by white crosses.

Permanently displaced landing thresholds are marked by normal threshold stripes and a white stripe across the runway with centreline arrows as shown in figure 3.



Fig. 3

Any displaced landing threshold may be supported by a wing bar display of white marker boards or coloured cone type markers placed outboard of the runway edges.

Fixed distance markings are large rectangular white block markings located 300 metres from the commencement of the runway threshold. The block pattern consists of a number of closely spaced longitudinal stripes arranged to minimise reduction of braking friction. (see figure 1)

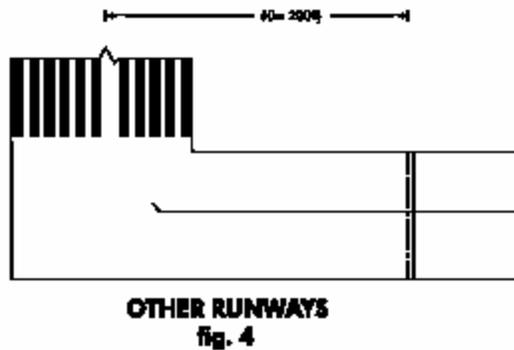
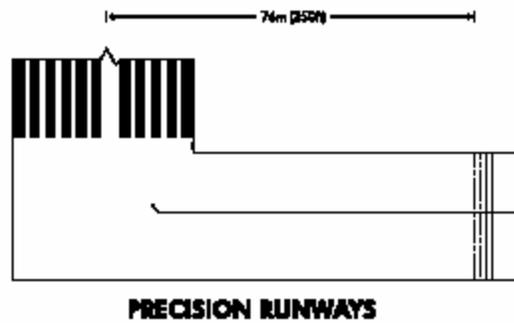
Touchdown zone markings are pairs of broad stripes placed symmetrically either side of the runway centre line. These commence 150 metres from the start of the threshold and are spaced at intervals of 150 metres throughout the length of the touchdown zone. (see figure 1)

Touchdown zone limit markings comprise a series of transverse stripes in a right angle triangle pattern located at the runway edges. (see figure 1). The markings indicate the limits of the touchdown zone (the longest transverse stripe) and are only applicable to large turbo jet aircraft operating under approved conditions.

TAXIWAY MARKINGS

Taxiway centreline markings comprise a continuous stripe (normally yellow) along the centrelines of taxiways. When the cockpit of the design aeroplane is over the centreline marking, clearance between the outer main wheel of the aeroplane and the edge of the taxiway is adequate.

Runway holding position markings indicate the positions on the taxiway beyond which an aircraft may not proceed in the runway direction until cleared to do so by ATC. Typical markings are shown in figure 4 below.



VOR checkpoint markings consist of a six metre circle (normally white) on the surface of the taxiway. The VOR radial from the VOR to the centre of the marking, and the VOR frequency, are displayed on an adjacent signboard together with the associated DME channel and distance where applicable. If it is necessary to align the aircraft in a specific direction to perform a VOR check, an arrowhead line through the centre of the circle will indicate the required aircraft heading.

APRON AND STAND MARKINGS

These markings are designed to be followed by keeping the aeroplane nose wheel on the guidelines. Guidelines may consist of lead-in, turning, or lead-out lines, and reference bars may be provided as follows:

- turn bars — to indicate the point at which to begin a turn
- stop line — to indicate the point at which to stop so that the nose wheel is on the block marking
- alignment bar — to assist in aligning the aircraft body in the appropriate direction.

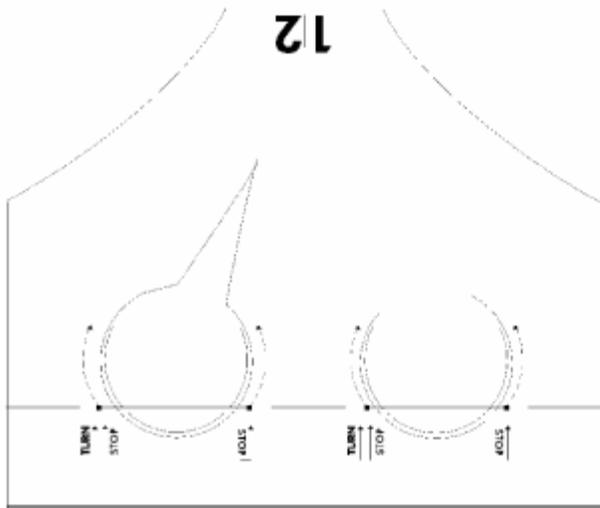


Fig. 5

Typical apron marking layout

Other markings used on stands include towing lines, equipment clearance lines and passenger path lines. At some aerodromes particular parking positions may be allocated to specific aircraft types to preserve utilisation of adjacent taxiways and other parking positions. Note: Hydrant refuelling and other apron services, where provided, are designed to service most types of aircraft. Therefore it is essential that guidelines are followed and the aircraft is correctly aligned and parked, whether taxiing is controlled solely by the pilot or with marshalling assistance.

INSET TAKE-OFF POSITION MARKERS

Inset take-off positions are established at several airports in New Zealand. They are indicated by "distance to go" marker boards on the opposite side of the runway from the taxiway entry point. Details of the runway lengths available from the inset take-off points are presented on the appropriate aerodrome chart in the AIPNZ Vol 4 or AIPNZ Vol 2 and 3.