

PART N

PARAPARAUMU AIRPORT

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Amendment
Change 18
20/01/05

N.1. GENERAL

Paraparaumu Airport take-off and approach surfaces designation, as specified below, are to ensure that potential development does not encroach into the protected surfaces which are beyond the boundaries of the airport. Such development would have an adverse effect on the safe and efficient approach and take-off of aircraft.

N.2 LEGAL PHYSICAL DESCRIPTION OF LAND SUBJECT TO REQUIREMENT

N.2.1 Legal Description

The legal description of the airport land is as follows:

Part Ngarara West B5, part Ngarara West B7	100.9816 ha
Part Ngarara West B7, 2C in Block III Kapiti	2.1435 ha
Part Lot 1, Block IV, DP 2767 in Block 1 Paekakariki	1.2059 ha
Part Lot 3, Block IV, DP 2767, Lots 1,3,5 and Part Lot 7	
DP 13859 in Block 1 Paekakariki and Block 111 Kapiti	10.7216 ha
Part Lot 1 Block IV DP 2767	4.8386 ha
Lot 12, 13 and 14 DP 13961 Block 1 Paekakariki	0.2528 ha
Part Ngarara West B4 in Block III Kapiti	10.6429 ha
<u>Total Area</u>	<u>130.7869 ha</u>

N.2.2 Overview Of Take-Off And Approach Surfaces

The physical description of the designation covers airspace in the vicinity of the Paraparaumu Airport, as shown on the designation plan, and consists of:

- several take-off and approach obstacle limitation surfaces;
- transitional slopes;
- a horizontal surface;
- a conical surface.

Modifications to the existing designation are as follows:

- changes to the approach and take-off obstacle limitation surface gradients for the sealed runways;
- inclusion of take-off and approach obstacle limitation surfaces for the two grass runways;
- take-off obstacle limitation surfaces for sealed runways extend to a distance of 15000 metres;
- approach obstacle limitation for sealed runways extend to 3000 metres;
- take-off and approach obstacle limitation surfaces for grass runways extend to 1200 metres;
- exclude land located to the north of Runway 34 (on other side of Kapiti Road).

The specifications of the transitional surface, horizontal and conical surfaces are included in the existing designation and have been detailed for clarification.

The base width of the take-off and approach obstacle limitation surfaces is hereafter called the baseline.

The location co-ordinates of the take-off and approach surface baselines are shown on Table 1.

The new specifications of the designation are as follows:

N.2.3 Runway 11 Take-Off And Runway 29 Approach Surfaces (Eastern End)

Runway 11 take-off and Runway 29 approach obstacle limitation surfaces both share the common gradient of 1:30. The baseline for both take-off and approach surface is 90 metres wide and begins 60 metres east of the threshold 29 transverse marker bar. The surfaces have different fan expansions (divergence on each of the fan). The approach surface fan expansion is 1:10 and the take-off surface fan expansion is 1:8.

The approach and take-off surfaces turn 95 degrees to the south-west, 600 metres out from the baseline, as shown on the designation plan.

N.2.4 Runway 29 Take-Off And Runway 11 Approach Surfaces (Western End)

Runway 29 take-off and Runway 11 approach surfaces have separate baseline origins but have the same baseline width of 90 metres. The Runway 29 take-off slope is 1:40 with an origin 60 metres west of the runway seal end and a fan expansion of 1:8. The Runway 11 approach is located 60 metres west of the threshold 11 transverse marker, with an approach surface gradient of 1:30 and the fan expansion of 1:10.

N.2.5 Runway 34 Take-Off And Approach Surfaces

Runway 34 has two separate take-off and approach obstacle limitation surfaces, both with a baseline width of 150 metres.

The Runway 34 approach surface gradient and fan expansion is 1:40 and 1:10 respectively. The Runway 34 approach baseline begins 60 metres south of the transverse bar denoting 34 threshold.

Runway 34 take-off surface gradient is 1:50 and the fan expansion is 1:8. The take-off baseline begins 60 metres north into the 85 metre runway starter extension of 188 metres north of wing bar lights, delineating the true threshold 16.

N.2.6 Runway 16 Take-Off And Runway 16 Approach Surfaces

Runway 16 has two separate obstacle limitations surfaces. Both have a common baseline width of 150 metres.

The Runway 16 approach surface gradient is 1:40 and the fan expansion is 1:10. The approach baseline begins 68 metres south of the flush mounted runway end lights (not starter extension lights) which is 60 metres north of the true location for the threshold 16 - currently indicated by the wing bar lights.

Runway 16 take-off surface gradient is 1:50 and the fan expansion is 1:8 and begins 60 metres south of the runway seal end. The take-off surface curves approximately 40 degrees to the south-west and converges with the take-off surface of Runway 29 (refer to map).

N.2.7 Transitional Surfaces

As shown on the attached map, the two sealed runways have a 1:7 transitional surface obstacle limitation gradient that extends along the length of each side of the sealed runway strip edge and the approach surfaces (as shown in Figure 1). The transitional surface is to protect the airspace from potential development being established adjacent to the runways and along the approach surfaces. (The Runway 16/34 strip width is 150 metres and the Runway 11/29 strip width is 90 metres).

N.2.8 Grass Runway Take-Off And Approach Surfaces

The two grass runways abut the two sealed runways (refer to Grass Runway Detail A on Plan No. 941.85). The take-off and approach surfaces and expansion fans all have gradients of 1:20, with the approach/take-off surface extending 1200 metres from the end of the runway strip. Both runways have a baseline width of 90 metres. A 1:4 transitional surface rise upwards and outwards from the edge of the runway strips along the length of the common gradient take-off and approach obstacle limitation surface to a height of 50m AMSL.

N.2.9 Horizontal And Conical Surfaces

The horizontal and conical surfaces cover the airport, surrounding land and water. They are necessary to provide an aircraft with a satisfactory margin for safety while manoeuvring at low altitude in the vicinity of the airport during an emergency.

The horizontal surface is located 45 metres above the airport. The average height of airport land is 5 metres above mean sea level (AMSL) and therefore the horizontal surface is 50 metres AMSL. The horizontal surface extends 4000 metres out from the sealed runway inner edges located 60 metres past of the end of the sealed runways. The perimeter of the 50 metre high AMSL horizontal surface is shown on the Paraparaumu Aerodrome Planning Map.

The conical surface extends outwards and upwards at a 1:20 gradient from the periphery of the 50 metre high horizontal surface to reach a height of 150 metres above the airport (155 metres AMSL - see Paraparaumu Aerodrome Planning Map).

N.3 NATURE OF WORK AND PROPOSED RESTRICTIONS

N.3.1 Nature Of Work

*Amended
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The nature of the work is to protect the airspace in the vicinity of the airport and provide adequate safety for aircraft movement.

There are no known works proposed within the Paraparaumu Airport area.

N.3.2 Restrictions

The Council will restrict the construction of any building, structure and height of trees within the airspace of the take-off approach, transitional, horizontal and conical surfaces.

The construction of any part of the structure, including aerials or antenna, or any other object that may encroach into any of the surfaces described under Section 2 herein and illustrated on the Paraparaumu Airport take-off and approach obstacle limitation surfaces map, will be a discretionary activity.

The encroachment of trees into the surfaces will be prohibited. Landowners will be required to trim the trees accordingly, unless the trees were planted prior to the airport becoming established in 1939.

N.4 ENVIRONMENTAL EFFECTS OF THE MODIFIED & PROPOSED TAKE-OFF & APPROACH SURFACES

The proposed take-off and approach surfaces for Runway 16 and 11 may restrict the height of any proposed development located under the surfaces. In particular, proposed developments might be affected up to 1 kilometre to the north of the Runway 34 take-off baseline and immediately north-west of Runway 29.

The surface gradients proposed include a safety margin beyond the normal operational take-off or approach gradients that aircraft fly. This will provide an unrestricted approach during an emergency. The area protected conforms with safety rules issued by the Civil Aviation Authority of New Zealand.

N.5 ADDITIONAL RESOURCE CONSENTS REQUIRED

Where a development is proposed in the coastal marine area and may be located under or encroach into a surface, a coastal permit will have to be sought from the Wellington Regional Council.

N.6 ADDITIONAL INFORMATION

Survey reference points are listed in Table 1 to inform the general public of the height above sea level of the approach and take-off baselines. This data is required by surveyors to ensure that a proposed development will not encroach into the take-off or approach surface gradients.

N.7 REGULATORY AUTHORITY

Regulations 93, 194 and 188 of the Civil Aviation Regulations 1953.

**TABLE I
SURVEY REFERENCE POINTS AND AERODROME HEIGHTS**

PT No.	Northing Pt Origin Mt Stewart 700 000m	Easting Pt 300 000m	Height (metres above mean sea level)	Description
1088	625931.11	258472.33	6.8	Take-off 11 and Approach Base 29, 60 metres east of traverse bar marking threshold 29
1003	626696.16	257656.52	5.0	Approach Base 11, 60 metres west of transverse bar marking threshold 11
1528	626800.46	257545.30	4.6	Take-off Base 29, located 60m west of runway seal end (west of threshold 29)
1738	626729.81	257836.12	5.4	Take-off Base 34, located 188 metres north of wingbar lights denoting true threshold 16
1519	625464.45	257842.20	4.6	Approach Base 34, located 60 metres south of threshold marking 34 traverse bar
1561	625258.33	257843.19	4.6	Take-off Base 16, located 60 metres south of runway seal end (past threshold 34)
1549	626601.81	257836.74	5.7	Approach base 16, located 60 metres north of wingbar lights denoting true threshold 16
1746	625821.29	257907.99	5.5	Grass Runway Base 34, located 610 metres from apex
1743	626077.00	258218.08	6.2	Grass runway base 29m located 24 metres from fence line (440 metres from apex)

Aerodrome Design - Aeroplanes above 5700 kg Maximum Certified Take-Off Weight

