PUBLIC AGENDA

Motueka Aerodrome Operations and Safety Meeting

12 July 2023 12.30- 2.30 pm

Motueka Aero Club

1.	Opening, Welcome	
2.	Apologies	
	That the apologies be rece	ived.
	Move:	Second:
	Carried	
3.		tueka Aerodrome Operations and Safety meeting held on 14 March 2023, be rect record of the meeting.
	Mover:	Second:
	Carried	
4.	Resolution that the Commi	ttee: ean as Chair of the Motueka Aerodrome Operations and Safety Meeting.'
	Move:	Second:

Carried

5. Action items from the minutes of the previous meeting

Action	Status	Assigned to:
A large area of loose stones needs to be returfed by the fuel pump. (Northern side of the pump).	(Look at cost to concrete the area, as it's a more suitable and a long-term solution)	Christina Ewing
Diamond Grid Check	Get contractors to touch base with Brad Keay	Christina Ewing
AIP for Motueka to be updated with Taxiways and protocols	Ongoing	Stephen Batt
MOU to be updated with current users and reflect any other necessary changes	Ongoing	Stephen Batt
Produce a detailed report on how changing the thresholds and OLS may affect operations of the aerodrome.	Ongoing	Stephen Batt

- 6. Motueka Aerodrome Managers' Report and Financials
- 7. Noise Management Fly Neighbourly
- 8. Development Requests Power Western End
- 9. Charges Review Fees and Charges increase from 1 July 2023.
- 10. Operations and Health & Safety Issues
 - 10.1 Surveying Plans (x5)
 - 10.2 Tree and Power Pole regarding survey

10.3 Memorandum of Under	standind
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10.4 Resource Consent – Submission Process

11. That the Motueka Aerodrome Operations and Safety Committee receives the Motueka Aerodrome Managers' report and financials.

Move: Seconder:

Carried

12. General Business

Meeting ended:

Motueka Aerodrome Operations and Safety Committee Manager's Report July 2023

Motueka Aerodrome

1.0 Health and Safety

- 1.1. Fencing has been fixed are users happy with perimeter security as it stands?
- 1.2. No other reported incidents.

2.0 Operations

2.1 Mowing and maintenance – general discussion over contractor performance

3.0 Financials (refer to attached)

- 3.1 Revenue is ahead of budget (\$21,382) being \$169,508 versus \$148,126. Lease revenue is over budget with landing fees being behind budget.
- 3.2 We are planning to complete a report and analysis of costs based upon the full financial year. A consultation with all the users will ensure that the landing fees charged are levied appropriately for current usage at the airfield. It is envisaged that casual versus annual, payment methods etc will all form part of the discussion.
- 3.3 Total expenses are \$31,013 over budget. This is due to higher compliance costs due to OLS survey, legal and consulting fees, higher maintenance costs and management time being assigned to reflect timesheet allocations.

4.0 Noise

4.1 A general reminder to read and comply with the Fly Neighbourly guidelines, contained within the recently circulated MOU agreements.

5.0 Risks

- 5.1 The CEO of Tasman District Council has provided an update to CAA based upon all changes enacted at Motueka since 1990 under Part 157 Notice of Construction, Alteration, Activation, and Deactivation of Aerodromes.
- Tasman District Council, as Aerodrome Operator, have notified CAA of a building located at 54 Green Lane being erected without the requisite notification under CAA Part 77.
- 5.3 The MOU for all users has been updated with a section requiring users to notify the Aerodrome Operator of any risks/concerns and any changes required to the operational AIP.
- 5.4 A tree was identified along College Street as penetrating the OLS for both sealed and grass runways. The owner has been contacted and the tree removed at the Council's cost.
- Two power poles have also been identified on a shared driveways off College Street. The estimated cost to underground these services at between \$350k to \$400K. Tasman District Council has notified Network Tasman of this risk so that they are aware when prioritizing capital work. Ideally, we can align with them to reduce the remediation costs and get the poles removed sooner rather than later. Costs provided exclude legal costs to adjust easements.

Motueka Aerodrome For the year to May 2023

Profit and Loss			Year to Date				Year End	End		VTD % Total
	Actual	Budget	Variance	Variance	Actual	Forecast	Budget	Variance	Actual	Budget
	May 2023	May 2023	\$	%	May 2022	Jun 2023	Jun 2023	\$	Jun 2022	,
REVENUE										
General rates	0	0	0	%0	0	0	0	0	0	%0
Lease income	132,570	102,069	30,501	30%	95,647	0	111,345	(111,345)	104,506	119%
Landing fees	12,694	19,811	(7,117)	-36%	15,616	0	21,614	(21,614)	16,572	29%
Other income	22,198	25,542	(3,344)	-13%	21,185	0	27,862	(27,862)	25,767	80%
Interest received	2,046	704	1,342	191%	375	0	771	(771)	1,024	265%
Share of council investment income	0	0	0	%0	0	0	0	0	0	%0
Total revenue	169,508	148,126	21,382	14%	132,822	0	161,592	(161,592)	147,869	105%
EXPENSE										
Personnel costs	15,780	6,919	(8,861)	-128%	8,279	0	7,552	7,552	8,870	209%
Maintenance	37,191	23,045	(14,146)	-61%	25,517	0	25,141	25,141	33,453	148%
General operating costs	21,269	34,276	13,007	38%	26,453	0	37,376	37,376	27,965	21%
Professional fees	16,243	4,081	(12,162)	-298%	12,292	0	4,448	4,448	13,098	365%
Overheads	46,373	37,521	(8,852)	-24%	24,391	0	40,925	40,925	26,763	113%
Total expense	136,855	105,842	(31,013)	-29%	96,932	0	115,442	115,442	110,150	119%
ЕВІТДА	32,652	42,284	(9,632)	-53%	35,890	0	46,150	(46,150)	37,719	71%
Depreciation	(30,483)	(28,655)	(1,828)	%9-	(27,332)	0	(31,249)	31,249	(29,615)	%86
Interest expense	0	132	(132)	100%	893	0	150	(150)	975	%0
Surplus/(deficit)	2,169	13,761	(11,592)	-84%	9,452	0	15,051	(15,051)	9,078	14%
OTHER COMPREHENSIVE REVENUE AND EXPENSE										
Asset revaluations	0	0	0	%0	0	0	0	0	0	%0
Total comprehensive revenue and expense	2,169	13,761	(11,592)	-84%	9,452	0	15,051	(15,051)	9,078	14%

MEMORANDOM OF UNDERSTANDING

Motueka Aerodrome Revised 2023

Introduction

This memorandum of Understanding (MOU) has been approved by the Motueka Aerodrome Operations Committee on behalf of the Tasman District Council, the owner of Motueka Aerodrome, and is intended as a best practice guide to pilots and aircraft operators who use Motueka Aerodrome. It brings together information and practices that have evolved over the years or appeared in a variety of publications and is the result of extensive consultation with local operators.

The high traffic density for an uncontrolled aerodrome (Motueka) often catches pilots by surprise, so this manual provides procedures which enable a safe, orderly, and expeditious flow of traffic.

This document is made freely available to any person requiring access to the information and is available on the Tasman District Council website www.tasman.govt.nz.

Please note: Time references throughout this document are in local time not UTC.

Disclaimer: While every effort has been made to ensure the accuracy of all information in this document, the changing nature of aviation requirements could result in sections of this publication becoming outdated. In the event of conflict, NZ Civil Aviation rules and the AIPNZ take precedence.

For further information, or to advise in writing of any alterations, revisions or inclusions considered appropriate, please contact:

Nick Chin, Aerodrome Operator Tasman District Council 189 Queen St Richmond 7050 nick.chin@tasman.govt.nz 022 5002446

Senior Enterprise Portfolio Officer email: stephen.batt@tasman.govt.nz – Mob:027 700 5732 General email: enterprise.portfolio@tasman.govt.nz

After Hours Contact: (03) 543 8400.

General

Motueka Aerodrome

Tasman District Council

Tasman District Council (Council) owns and operates Motueka Aerodrome. Council is a network utility operator within the definition of that term in Section 166 of the Resource Management Act 1991 and has gazetted approval as a Requiring Authority under this Act.

Tasman District Council is able to:

- Establish and carry on, maintain or manage the Motueka Aerodrome activities:
- Improve, add to, alter or reconstruct the Aerodrome or any part thereof;
- Operate and manage the Aerodrome as a commercial undertaking;
- Make bylaws effective within the Aerodrome boundaries;
- Change and/or set such fees, charges and dues, after consultation with the defined users of the Aerodrome, for the use and operation of the Aerodrome, its services or associated facilities;
- Withdraw permission to operate at Motueka Aerodrome at any time.

Use of Operational Areas

Council, in accordance with Civil Aviation Rule 91.127 may prescribe limitations and operational conditions on the use of the Motueka Aerodrome. These conditions and limitations will be published in the Aeronautical Information Publication New Zealand (AIPNZ).

Motueka Aerodrome Memorandum of Understanding (MOU)

Aim

The aim of the MOU is to promote safe flight activities and a harmonious relationship between aviation activities and the aerodrome's neighbours.

Purpose

The purpose of the MOU is to maintain high safety standards and to minimise the impact of flying activities on the community and neighbours living in the vicinity of Motueka Aerodrome and the Motueka area as much as possible, while enabling the normal airport commercial activities to take place.

It has been formulated with the assistance of Motueka flying organisations, the Civil Aviation Authority, Tasman District Council, and representatives of the local community.

1. Signatories to this MOU

All persons operating aircraft at Motueka Aerodrome on a regular basis or who use Motueka Aerodrome as their base for operations are required to be "signatories" to this MOU.

1.1 Code of Conduct

Motueka Aerodrome is a busy, unattended aerodrome, which is often

underestimated by visiting pilots. Many people flying at Motueka are student pilots who do not hold full pilot licences as they are under training. In such an environment it is inevitable there may be delays, frustration or financial penalties. The contribution of all will assist in achieving maximum safety and efficiency, but requires all parties to exhibit tolerance, a co-operative attitude and the highest standards of airmanship.

Those using Motueka Aerodrome are asked to adhere to the following ethics:

- Show patience and tolerance towards other operators and pilots;
- Clearly explain intentions and clarify, if requested;
- Be considerate to all other users and local residents by exhibiting a professional attitude and a high level of airmanship;
- Listen out before transmitting;
- Do not direct insults or unkind words to other operators or pilots, at any time;
- Be considerate of local residents and display good airmanship; and
- Be familiar with practices, procedures and all other information regarding the use of Motueka in the AIPNZ and comply with these requirements.

1.2 Flying Neighbourly

"Flying Neighbourly" is a method of operating an aircraft in such a manner that recognises the issues of operating that aircraft in and around noise- sensitive areas. It contains both short- and long-term strategies, in recognition of the amenity values that almost all councils hold as particularly important community values to be managed. The challenge for aviators who legally operate above noise-sensitive areas or at low level (i.e., not below 500 AGL) or undertake repetitive manoeuvres, such as steep turns or aerobatics, is to plan and manage their operations so that the amenity values of people on the ground are respected. By taking a proactive approach to aircraft operations and by managing both the types of, and repetitive nature of, aircraft noise, in working with the wider community, the aviation community has an opportunity to circumvent the possibility of legislation being forced upon the industry.

Aircraft noise is generated in the low frequency band, where noise annoyance levels are at their highest. To that end, this MOU recognises the amenity values surrounding noise, particularly in noise-sensitive areas, and the signatories to this document undertake (when possible) to plan, manage, and mitigate the noise generated by the aircraft that they operate. The way aircraft are operated will influence reactions.

Techniques which will help operators to manage noise likely to increase and contribute to annoyance include:

If it is necessary to fly near or over noise-sensitive areas, maintain an altitude as high as possible, in line with the operations required to be flown. Fly normal cruising speed or slower and observe low noise speed and descent recommendations, avoid sharp manoeuvres, use steep take-off and descent profiles (helicopters only) and vary the route, since repetition contributes to annoyance.

When operating in noise-sensitive areas, pilots of fixed-wing aircraft should

- operate their propellers at the low end of the propeller recommended RPM operating range, where appropriate.
- When carrying out low level operations pilots shall give consideration to things, they can do to manage their noise footprint. Some examples are: operating RPM, repetitive track placement (e.g. keeping high ground or shelter belts between their tracks and any nearby residence when this is possible), hours of operation and timing of operation.

The guidance above does not apply where it would conflict with Civil Aviation Regulations, air traffic control clearances or instructions, or where a lower altitude is considered necessary by a pilot to operate safely, or to complete a specific task.

Types of operations which are not considered to align with the "Fly Neighbourly" ethos are:

- Manoeuvres requiring repetitive applications of power over the same geographic location for extended periods.
- Lengthy aerobatic sessions over the same geographic location
- Constant and repetitive flight envelope over the same geographic location for extended periods
- Flying at, or directly towards, places of residence or work, at low level.
 The adoption of these recommendations and use of noise abatement provides the basis for lowering the noise generated in day-to-day operations of aircraft in noise sensitive areas, such as Upper Moutere. If the recommendations are followed, public acceptance will be improved and the aviation community will be able to flourish and grow, without being restricted by the burden of new noise regulations and operational restrictions.

Further reading can be found in the NZ Aviation Industry Association Environmental Code of Practice and the Helicopter Association International (HAI) "Fly Neighbourly Guide".

1.3 Civil Aviation Rule (CAR) 91.127 Use of Aerodromes

CAR 91.127 states "no person may operate an aircraft at an aerodrome unless - (1) that person complies with any limitations and operational conditions on the use of the aerodrome notified by the Aerodrome Operator.

Note: Any breach of CAA rules by a pilot or aircraft operator at any stage will be reported to CAA in accordance with CAR part 12. It is the responsibility of the pilot in command to report such occurrences to CAA via CAA005 form."

1.4 Specific Operational Considerations

Motueka Aerodrome currently has several different types of operation which affect the way it operates. It has a mix of commercial operators and flight training which utilise differing types of helicopters, microlights, hang gliders, parachutes, and aeroplanes.

1.5 Commercial Activity

This encompasses:

- Parachute operations with the parachute aircraft dropping parachutists to circuit and land on the eastern side of the runway. The parachute aircraft may join from a high downwind, base leg or straight in.
- Commercial aerobatic activity occurs above 3,000ft AGL in the training areas and the aircraft tends to join the circuit in a similar manner to the parachute aircraft.
- Normal charter flying activities.
- Microlight activity occurs off the field with motorised microlights doing scenic flights around the area – particularly in the Abel Tasman area. Hang gliders are regularly towed into the air by motorised microlight which gains height above the airfield and descends steeply overhead or on the non-traffic side after tow release. The hang glider circuits on a very close left hand circuit to land on the western side of the runway. All microlights and hang gliders have radios. Note that some of these aircraft operate in the circuit at slow speeds.
- Commercial helicopters operate from the aerodrome.

1.6 Training Activity

Motueka Aerodrome has high levels of training traffic involving helicopters, microlights and aeroplanes which use both grass and sealed runways, plus both the eastern and western helipads. The normal circuit is at 1000ft AMSL, but training helicopters tend to use an 800ft AMSL circuit which is slightly closer in. Helicopters often practice auto-rotations from varying altitudes.

1.7 Fixed Wing Aircraft

Where possible, pilots are to observe the following:

- Houses and farm buildings must not be deliberately targeted.
- Keep the flight path away from buildings when simulating forced landings, glide approaches and engine failure after take-off manoeuvres.
- Power settings and flight profiles should be in accordance with the manufacturer's specifications for minimum noise levels consistent with safety.
- Aircraft with noisy characteristics should start at the runway threshold for take-off to minimise noise as much as possible.
- Night cross-country flight routes, particularly over Motueka, shall, where possible, be varied and kept seaward of Motueka after 9.00pm. Note: Motueka Aerodrome is only available for use during the hours of daylight.

1.8 Helicopters

Where possible, pilots are to observe the following:

- Houses and farm buildings must not be deliberately targeted.
- Power settings and flight profiles should be in accordance with the manufacturer's specifications for minimum noise levels consistent with safety.
- Hover training is only permitted in those areas designated for that purpose.
- Sling load training is to be contained within the confines of the Aerodrome boundary or LFZ (Low Flying Zone) L664 and in those areas designated for that purpose.
- No night circuit training at Motueka. After night flying in Nelson, helicopters are to carry out a landing to the floodlit hangar in a way which will minimise noise on return to Motueka. Landings are to be no later than 10.30pm except in the case of an emergency.
- Please avoid Marchwood Park during equestrian events.

1.9 Complaints

Perceived transgressions of the "Flying Neighbourly" procedures set out herein may be reported to the Tasman District Council Aerodrome Operator and due investigation will occur to encourage pilots to comply.

In the event of an accident/incident at Motueka Aerodrome, all media requests for information or comment should be referred to the affected organisation, the Aerodrome Operator, or the CAA, without further comment.

2.0 Operations

The following airspace applies:

2.1 NZC 687 Motueka CFZ, Nelson Bays

Boundaries are as outlined in the New Zealand Air Navigation Register.

2.2 NZB 682 Motueka MBZ, Nelson Bays

Boundaries are as outlined in the New Zealand Air Navigation Register.

2.3 Noise Abatement Courtesy

2.3.1 Departing Aircraft

- All aircraft not departing from any runway at Motueka (including overshoot or touch and go manoeuvres) should track runway heading until at or above 500ft AMSL prior to commencing a left turn.
 Note: The purpose of the 500ft rule is to avoid making turns over the residential areas. However, deviation from the runway heading may be undertaken as an aid to proximity to forced landing areas.
- Aircraft not departing via the circuit should maintain runway heading until outside the circuit (2 nautical miles) prior to turning right.

2.3.2 Circuits

- A Circuit plan for Motueka Aerodrome is attached as Appendix 2.
- Circuits below 1000ft AMSL should only be carried out in the 02 circuit, therefore avoiding the Motueka township.
- Where possible, aircraft are asked to avoid orbiting within the aerodrome circuit except in an emergency.

2.4 Equipment Requirements

Motueka is a mandatory broadcast zone, and all procedures are to be carried out as prescribed in Civil Aviation Rule 91.135 and detailed in the AIPNZ.

2.5 Taxiing

- Aircraft with low propeller clearance are advised to exercise extreme caution when taxiing on Motueka Aerodrome.
- Aircraft should not taxi close to helipads when helicopters are taking off or landing. Check approach path for landing helicopters before passing helipads.
- Helicopters undertaking hover taxiing exercises and/or 180 auto-rotations should notify taxiing and landing aircraft before this is carried out and at all times remain clear of aircraft doing run-ups.
- Aircraft must not taxi through the parachute landing area (PLA) when parachuting is in progress (the PLA is active).
- Parachuting is considered to be in progress when the pilot of the parachute aircraft has advised that parachute dropping is in progress. The PLA becomes inactive after the last canopy has landed.
- Helicopters must not start after refuelling at the pumps until they determine that the PLA is inactive.
- Taxiing aircraft are to give way to aircraft vacating the runway.

2.6 Circuit and Runway Operations

- Each pilot in command shall ascertain the runway in use prior to entering any runway.
- Fixed wing and helicopter circuits should conform to the same runway direction.
- The standard circuit altitude is 1000ft AMSL. Helicopters may circuit at 800ft AMSL slightly closer into the runway.
- Low level circuits of 600ft AMSL may take place in the 02 circuit only at times when there will be no conflict caused with standard circuit traffic.
- If a pilot wishes to change position in the circuit, it must only be done
 when deemed safe and only after establishing contact and advising other
 traffic.
- Aircraft, where possible, are asked to avoid orbiting within the aerodrome circuit except in an emergency. This would mean that aircraft may choose to slow down or extend that circuit leg where necessary to accommodate the emergency.

2.7 Go Around Procedures

2.7.1 Go Around Actions

On go around from a balked landing, track runway heading to the minimum height needed. If not directly continuing in the circuit climb runway heading until clear of the circuit and carry out the appropriate re-joining procedure. The positions of other aircraft and in particular the positions of parachutes and microlights must be considered when going around.

2.8 Wake Turbulence

Pilots should be aware of wake turbulence from all larger aircraft and downwash from helicopters.

2.9 Runway Changes

Any pilot can initiate a runway change when required by wind changes or sun strike. Pilots must advise their intention to change runway direction with other circuit traffic before initiating the change.

2.10 Parachute Landing Area NZP 617

NZP 617 Parachute Drop Zone is situated South 41 07 23.8 E172 59 18.5

2.11 Low Flying over Coastal Motueka

Pilots are requested to be mindful of the wildlife on the Motueka Sand spit and not fly below 1000ft AMSL over the entire length of the Sand Spit. They are also requested to remain seaward of the Sand Spit when transitioning to the LFZ unless necessary for safety purposes.

3.0 Arrivals

Arrivals are in accordance with standard joining procedures except when the Parachute Landing Area is active, in which case overhead re-joins are **not** to be carried out. Joining traffic must remain clear until all canopies have landed or join via another procedure.

4.0 Departures

Aircraft turning right after departing the circuit from 02 should maintain runway centre line until clear of the coast or above 1000ft AMSL.

5.0 Training Operations

5.1 Training Areas

The standard training areas used in the Motueka area are – Kaiteriteri, Tasman, Mapua, Upper Moutere, Lower Moutere, Ngatimoti, Riwaka and the Motueka, Tasman Bays LFZ 664. Helicopters also use Fern Flat and Canaan Downs areas (see Appendix 1).

Where possible, aircraft should fly at a different altitude than an aircraft operating in an adjacent area in order to increase separation. Pilots should vary their training areas to achieve an even use of all areas, in order to reduce the noise footprint for individual training areas.

Due to the presence of livestock in the rural areas, pilots need to be mindful of the effect of flight training activities and exercise caution where and when appropriate, e.g., especially in spring during lambing and calving, and in the proximity of horses and riders.

In the Upper Moutere area, local aircraft are asked to remain above a minimum altitude of 500ft AGL. This height is required for aircraft flying in the Upper Moutere training area due to the close proximity of houses in the area. **This altitude is designed to achieve adequate clearance from the overlapping "no-fly" cylinders** in compliance with Rule Part 91. However, aircraft may carry out an approach and/or landing to any of the agriculture strips in the area for the purposes of commercial work (e.g., top dressing), and the Rosedale, Ngatimoti or old Baigent strips for training purposes. Circuits for training on these strips should not be below 500ft AGL until on approach.

5.2 LFZ 664

The Motueka, Nelson Bays Low Flying Zone is operated by Nelson Aviation College (NAC). Anybody wishing to use this area must have prior permission from NAC. Use of this area must be IAW Civil Aviation Rule Part 91 especially rule 91.131. Nelson Aviation College has also imposed a lower limit of 200ft AMSL to ensure the safety of pilots and the protection of birdlife. The only exception to this rule is that helicopters conducting training are permitted to land in this area.

Boundaries are as outlined in the New Zealand Air Navigation Register.

6.0 Communications

6.1 Transmissions

6.1.1 Listening for Transmissions

All pilots must listen out before transmitting – not just for a gap in transmissions, but also to understand the nature of the previous transmission to achieve and enhance situational awareness.

6.1.2 Accuracy of Position Reports

Position reports need to be accurate, giving position relative to a visual reporting point or prominent mark on the Visual Navigation Chart.

6.1.3 "Motueka Traffic" Transmission

Transmit "Motueka Traffic" **only** at the beginning of the transmission. Broadcasting the aerodrome designation twice applies to unattended aerodromes using the 119.1MHz frequency.

7.0 Miscellaneous Operations

7.1 Conditions of Use

The Motueka Aerodrome Management Plan sets out the conditions of use for Motueka Aerodrome, which are to be observed by all pilots and aircraft operators.

7.2 Aircraft Parking

- Overnight parking with tie-down facility is available for itinerant aircraft in the area designated in the AIP Motueka Aerodrome chart.
- No parking in the Parachute Landing Area.
- Taxiways are to be kept clear at all times no parking permitted.
- All apron areas and access ways to hangars and fuel installations are to be kept clear at all times.

7.3 Drone Operation and Notification

- The Aerodrome Operator will issue a NOTAM for all communicated drone flights within a 4k.m. radius of the aerodrome. This will be completed irrespective of low altitude flights as a prudent risk measure.
- The notification of drone flights within this zone will be reviewed annually to ensure the messages are being received and noted.

7.4 Aviation Events and Displays

7.4.1 Aviation Event/Display Approval

Aviation Events and displays, as defined in Civil Aviation Rule Part 1, are subject to the approval of the Motueka Aerodrome Operator and must be in accordance with Civil Aviation Rule Part 91.703.

7.4.2 Event Co-ordination

Any event on the aerodrome is to be co-ordinated with all airport tenants.

8.0 Bird Hazards

8.1 Bird Types

The presence of birds, especially Spur-Winged Plovers on the runways at Motueka is a constant problem, particularly at certain times of the year. Pilots must exercise extreme caution.

9.0 Aerodrome Emergency Procedures

9.1 Emergency Procedures

Detailed Motueka Aerodrome emergency procedures are contained in the

Motueka Aerodrome Emergency Plan document, which is available from the Tasman District Council website, www.tasman.govt.nz.

Note: Accidents must be reported to the CAA (0508-ACCIDENT or 0508-222433). .

9.2 Aircraft Undercarriage Emergencies

9.2.1 Landing Procedure

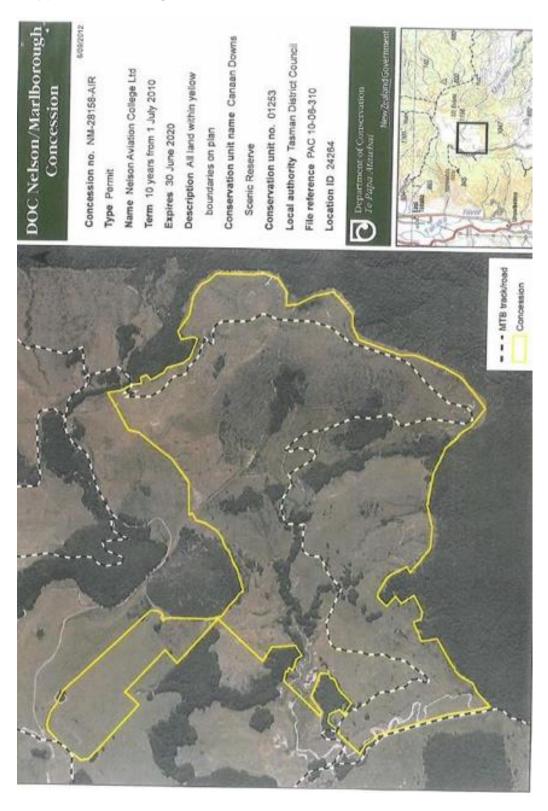
Motueka Aerodrome does not have an on-airfield Rescue Fire Service; therefore, the Aerodrome Operator recommends that the pilot of an aircraft with an unsafe undercarriage indication should either divert to Nelson aerodrome for a landing or delay landing until Emergency Services are in position on the airfield; except those conditions of low fuel endurance, deteriorating weather or other factors, may force the pilot to land without delay.

9.2.2 Emergency Communications

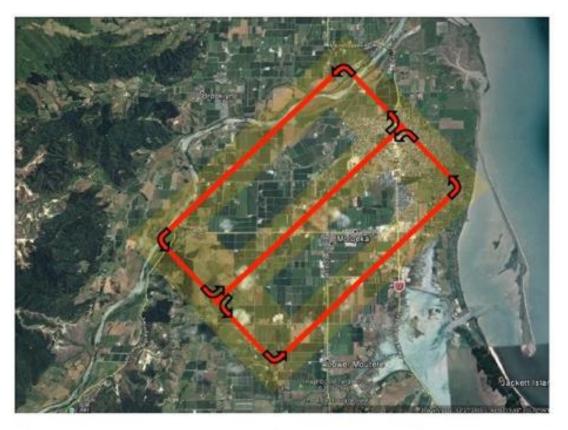
The pilot should advise NELSON ATC on 127.4 Mhz of the nature of the problem and their intentions. If the pilot wishes to land at Motueka, a Full Emergency phase must be declared. The pilot is encouraged to hold overhead the airfield until the Fire Service gives the go ahead to land.

Appendices

Appendix 1 Training Areas



Appendix 2 Circuit Map



The circuit is an orderly pattern used to position the aeroplane for landing and minimise the risk of collision with other aircraft.

Airfields attract aircraft, therefore rules and procedures are required to maintain an orderly sequence or flow of traffic. All aircraft should be following these published procedures making it easier to identify which runway should be used, where other aircraft are or expected to be, and who has the right of way in the sequence to takeoff or land.

Motueka Aerodrome Signatories

Tasman District Council (Aerodrome Operator)

Signature:	_ Date:
Inflite Skydive Abel Tasman	
Signature:	_ Date:
Nelson Aviation College	
Signature:	_ Date:
Nelson Aero Club	
Signature:	_ Date:
Argus Aviation Ltd	
Signature:	_ Date:
Motueka Aero Club	
Signature:	Date:



GILBERT, HAYMES & ASSOCIATES LTD

REGISTERED SURVEYORS P.O.BOX 380 - 181 HIGH STREET - BLENHEIM PHONE (03)5787984 - FAX (03)5787709 E-MAIL office@gilberthaymes.co.nz Obstacle Limitation Surface Grass Runway Definition

Sheet	1 of 3
SCALE 1:4000	- A3
DATE 19/05/2023	DRAWN JC
JOB REF 20235126	
CAD FILE MOTUEKA	A - Grass Day OLS



PREPARED BY:

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REGISTERED SURVEYORS

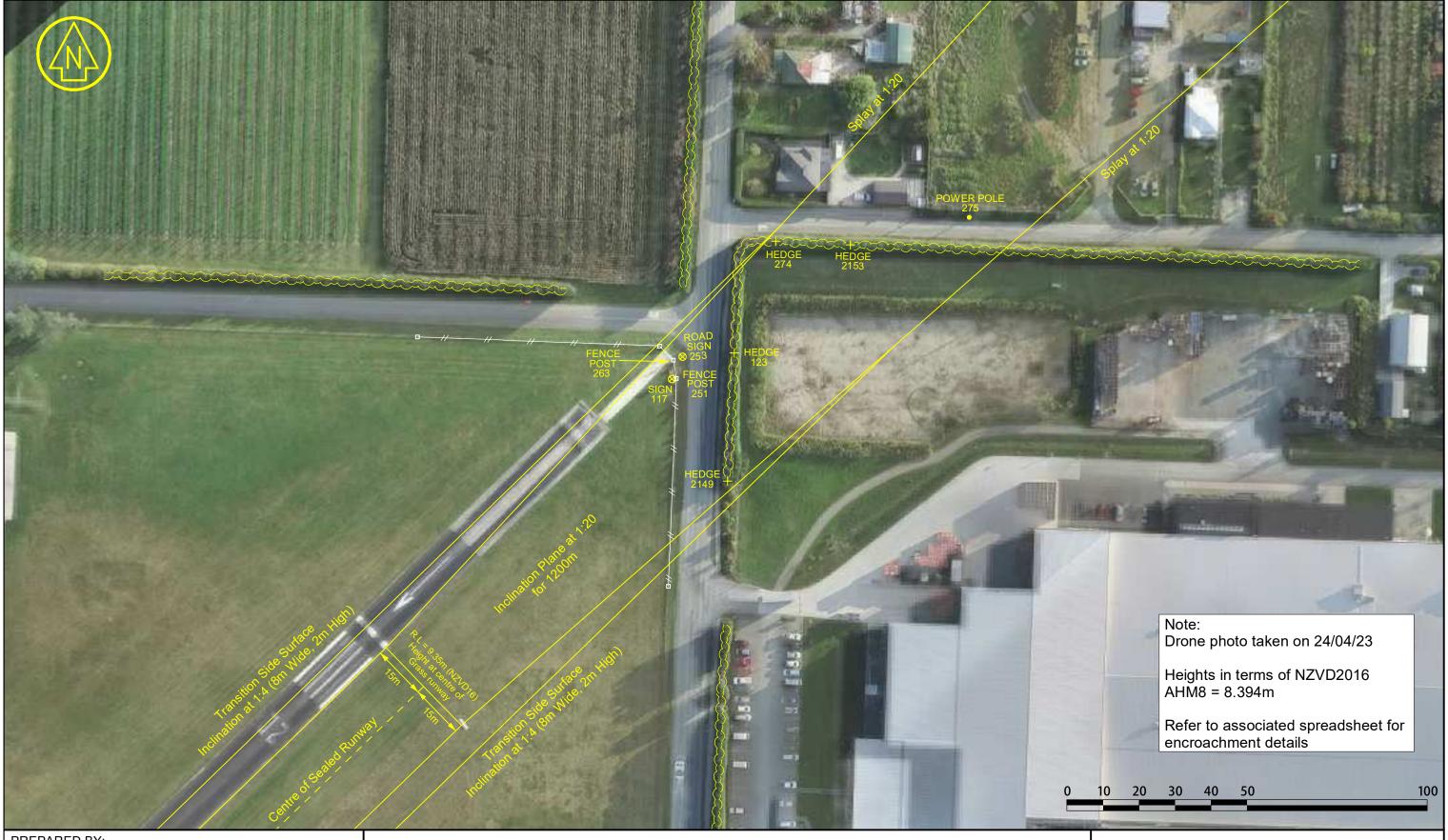
P.O.BOX 380 - 181 HIGH STREET - BLENHEIM PHONE (03)5787984 - FAX (03)5787709 E-MAIL office@gilberthaymes.co.nz

Motueka Aerodrome Obstacle Limitation Survey Grass Runway O2 Day Approach/Take-off Sheet 3 of 3

 SCALE 1:1000
 - A3
 DATE 19/05/2023

 DRAWN JC
 JOB REF 20235126

 CAD FILE MOTUEKA - Grass Day SW



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GILBERT, HAYMES & ASSOCIATES LTD

REGISTERED SURVEYORS

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Motueka Aerodrome Obstacle Limitation Survey Grass Runway 20 Day Approach/Take-off Sheet 2 of 3

 SCALE 1:1000
 - A3
 DATE 19/05/2023

 DRAWN JC
 JOB REF 20235126

 CAD FILE MOTUEKA - Grass Day NE

Gilbert Haymes and Associates Ltd

Job # 20235126

172 59 19.0923 E

Motueka Airport Obstruction Survey

Fan Origin Pt Coords: 41 07 22.8505 S Controlling Fan: Approach / Takeoff

WGS 84

Surface Slope (%): 5 Divergence (%): 5

Obstruction List April 2023 Circuit Bearing of CL (dec°): 225.9178

Inner Edge (m): 30 IE Elevation (m): 10.6

Grass Runway 02 Day (Approach & Takeoff)

Pt# Description Position Ground Obstruction Height of Top Dist. Along CL Controlling Surface Current Current Level Height of Obstruction From Start TO Surface Level Intrusion Clearance mΝ mΕ m m m m m m 206 POWER POLE 41 07 28.136 172 59 13.192 10.8 8.7 19.5 212 FAN 21.2 1.7 207 POWER POLE 41 07 27.028 172 59 12.862 10.8 5.9 16.7 194 FAN 20.3 3.6 208 APEX 41 07 25.939 172 59 13.953 11.1 5.5 16.6 152 FAN 18.2 1.6 209 APEX 4.6 15.7 125 FAN 16.8 41 07 25.975 172 59 15.627 11.1 1.1 218 POWER POLE 41 07 27.093 FAN 18.9 0.6 172 59 14.674 10.8 8.7 19.5 165

219	POWER POLE	41 07 27.065	172 59 13.222	11.0	8.7	19.7	189	FAN	20.0	-	0.3
1023	FENCE POST	41 07 24.983	172 59 15.797	10.9	1.0	11.9	101	FAN	15.6	-	3.7
1024	FENCE POST	41 07 25.014	172 59 16.855	10.8	1.1	11.9	84	FAN	14.8	-	2.9
1026	TREE	41 07 25.586	172 59 16.488	10.8	8.2	19.0	102	FAN	15.7	3.2	-
2017	TREE	41 07 28.270	172 59 11.911	10.6	8.4	19.0	237	FAN	22.4	-	3.4
2019	TREE	41 07 28.577	172 59 12.393	10.7	8.2	18.9	235	FAN	22.3	-	3.4
2059	TREE	41 07 27.865	172 59 10.929	10.8	8.5	19.3	244	FAN	22.8	-	3.5
2060	TREE	41 07 27.706	172 59 11.435	10.7	7.1	17.8	233	FAN	22.2	-	4.4
2130	NETTING	41 07 28.249	172 59 11.067	10.7	5.7	16.4	250	FAN	23.1		6.7
2137	APEX	41 07 27.674	172 59 12.482	10.7	4.1	14.8	214	FAN	21.3		6.5

Notes:

Heights in terms of NZVD2016

Gilbert Haymes and Associates Ltd

Job # 20235126

Motueka Airport Obstruction Survey

Fan Origin Pt Coords: 41

41 07 08.1811 S

Controlling Fan: Approach / Takeoff

WGS 84

172 59 39.2647 E

Surface Slope (%):

5

Obstruction List

April 2023

Circuit Bearing of CL (dec°):

45.9178

Divergence (%): 5

Inner Edge (m):
IE Elevation (m):

30 9.35

Grass Runway 20 Day (Approach & Takeoff)

Pt#	Description	Position		Ground Level			Dist. Along CL From Start TO	Controlling Surface	Surface Level	Current Intrusion	Current Clearance
		mN	mE	m	m	m	m	m	m	m	m
117	SIGN	41 07 05.420	172 59 42.233	9.2	2.6	11.8	212	FAN	14.8	-	3.0
123	HEDGE	41 07 05.187	172 59 42.977	8.9	4.5	13.4	194	FAN	15.6	-	2.2
251	FENCE POST	41 07 05.415	172 59 42.285	9.2	1.2	10.4	152	FAN	14.8	-	4.4
253	ROAD SIGN	41 07 05.220	172 59 42.360	9.0	3.0	12.0	125	FAN	15.2	-	3.2
263	FENCE POST	41 07 05.251	172 59 42.248	9.2	1.3	10.5	165	FAN	15.0	-	4.5
274	HEDGE	41 07 04.183	172 59 43.475	8.8	6.7	15.5	189	FAN	17.2	-	1.7
275	POWER POLE	41 07 03.974	172 59 45.778	8.6	6.6	15.2	101	FAN	19.3	-	4.2
2149	HEDGE	41 07 06.341	172 59 42.890	8.9	4.0	12.9	84	FAN	14.4	-	1.5
2153	HEDGE	41 07 04.219	172 59 44.361	8.8	7.1	15.9	102	FAN	17.8	-	1.9

Notes:

Heights in terms of NZVD2016



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Motueka Aerodrome Obstacle Limitation Surface Sealed Runway Definition

Sheet	1	of	3

 SCALE 1:4000
 - A3

 DATE 19/05/2023
 DRAWN JC

 JOB REF 20235126

 CAD FILE MOTUEKA - Sealed Day OLS



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REGISTERED SURVEYORS

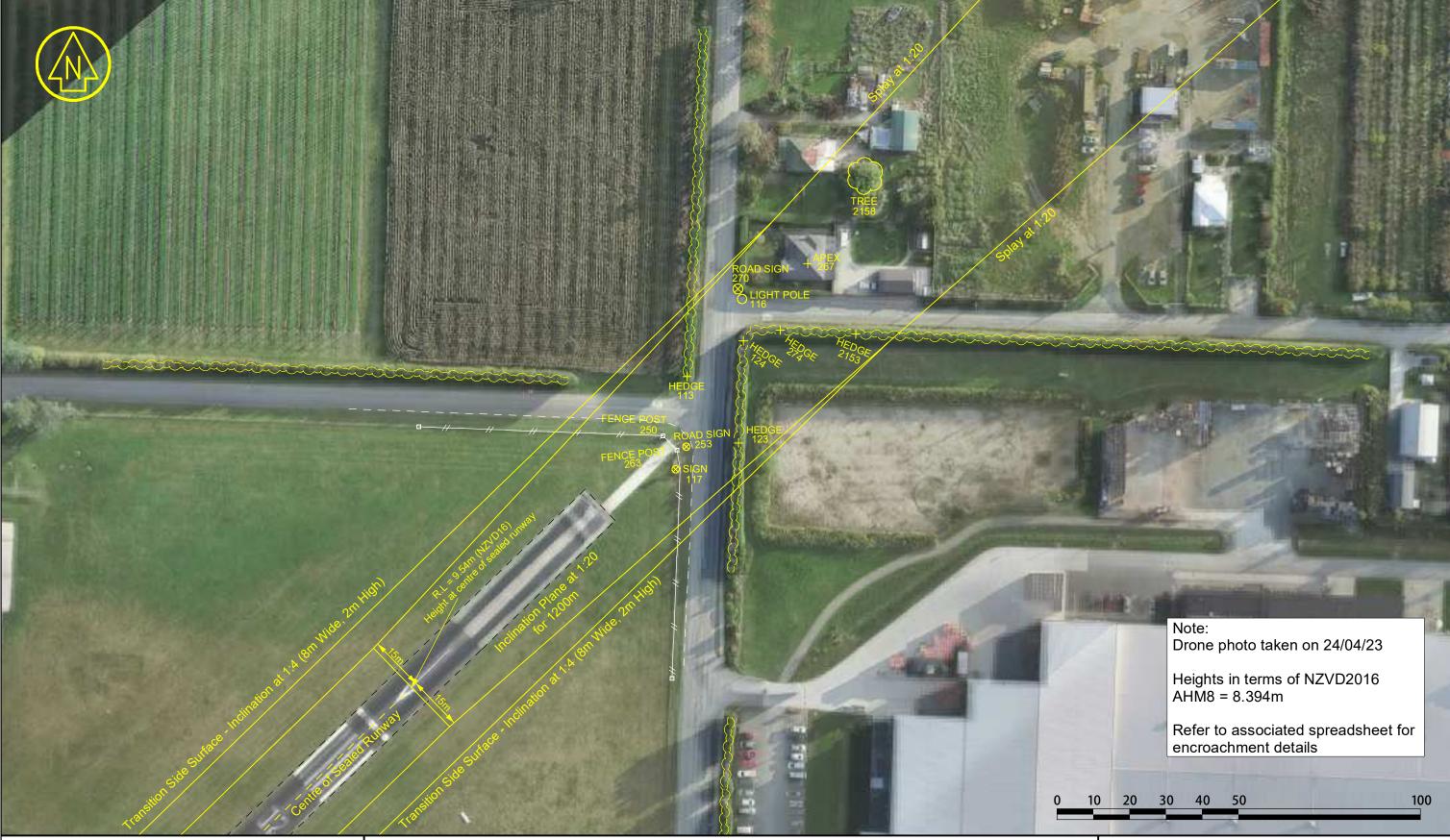
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Motueka Aerodrome Obstacle Limitation Survey Sealed Runway O2 Day Approach/Take-off Sheet 2 of 3

 SCALE 1:1000
 - A3
 DATE 17/05/2023

 DRAWN JC
 JOB REF 20235126

 CAD FILE MOTUEKA - Sealed Day SW



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Motueka Aerodrome Obstacle Limitation Survey Sealed Runway 20 Day Approach/Take-off Sheet 3 of 3

 SCALE 1:1000
 - A3
 DATE 17/05/2023

 DRAWN JC
 JOB REF 20235126

 CAD FILE MOTUEKA - Sealed Day NE

Gilbert Haymes and Associates Ltd

Job # 20235126

Motueka Airport Obstruction Survey

Fan Origin Pt Coords: 41 0

41 07 22.7354 S

Controlling Fan: Approach / Takeoff

WGS 84

172 59 17.9643 E

Surface Slope (%):

5

10.84

Obstruction List

April 2023

Circuit Bearing of CL (dec°):

225.9178

Divergence (%):

Inner Edge (m):

5 30

Sealed Runway 02 Day (Approach & Takeoff)

IE Elevation (m):

Pt#	Description	Position		Ground Level	Obstruction Height	•	Dist. Along CL From Start TO	Controlling Surface	Surface Level	Current Intrusion	Current Clearance
		mN	mE	m	m	m	m	m	m	m	m
	POWER POLE	41 07 27.028	172 59 12.862	10.8	5.9	16.7	178	FAN	19.6	-	2.9
208	APEX	41 07 25.939	172 59 13.953	11.1	5.5	16.6	136	FAN	17.6	-	1.0
219	POWER POLE	41 07 27.065	172 59 13.222	11.0	8.7	19.7	172	FAN	19.5	0.2	-
1021	SIGN	41 07 24.877	172 59 13.732	11.1	2.5	13.6	117	FAN	16.6	-	3.0
1022	FENCE POST	41 07 24.921	172 59 13.775	11.1	1.0	12.1	117	FAN	16.6	-	4.5
1023	FENCE POST	41 07 24.983	172 59 15.797	10.9	1.0	11.9	85	FAN	15.0	-	3.1
2001	APEX	41 07 26.069	172 59 12.481	11.0	4.3	15.3	163	FAN	18.9	-	3.6
	TREE	41 07 28.270	172 59 11.911	10.6	8.4	19.0	220	FAN	21.8	-	2.8
2059	TREE	41 07 27.865	172 59 10.929	10.8	8.5	19.3	228	FAN	22.1	-	2.8
2060	TREE	41 07 27.706	172 59 11.435	10.7	7.1	17.8	216	FAN	21.6	-	3.8
2130	NETTING	41 07 28.249	172 59 11.067	10.7	5.7	16.4	234	FAN	22.5	-	6.1
2131	NETTING	41 07 28.193	172 59 08.814	11.2	5.5	16.7	271	FAN	24.3	-	7.6
2137	APEX	41 07 27.674	172 59 12.482	10.7	4.1	14.8	198	FAN	20.7	-	5.9

Notes:

Heights in terms of NZVD2016

Gilbert Haymes and Associates Ltd

Job # 20235126

Motueka Airport Obstruction Survey

Fan Origin Pt Coords: 41

41 07 07.3587 S

Controlling Fan: Approach / Takeoff

WGS 84

172 59 39.1093 E

Surface Slope (%): 5

WG3 0

Circuit Bearing of CL (dec°):

Divergence (%):

5

9.54

45.9178

Inner Edge (m):
IE Elevation (m):

ge (m): 30

Sealed Runway 20 Day (Approach & Takeoff)

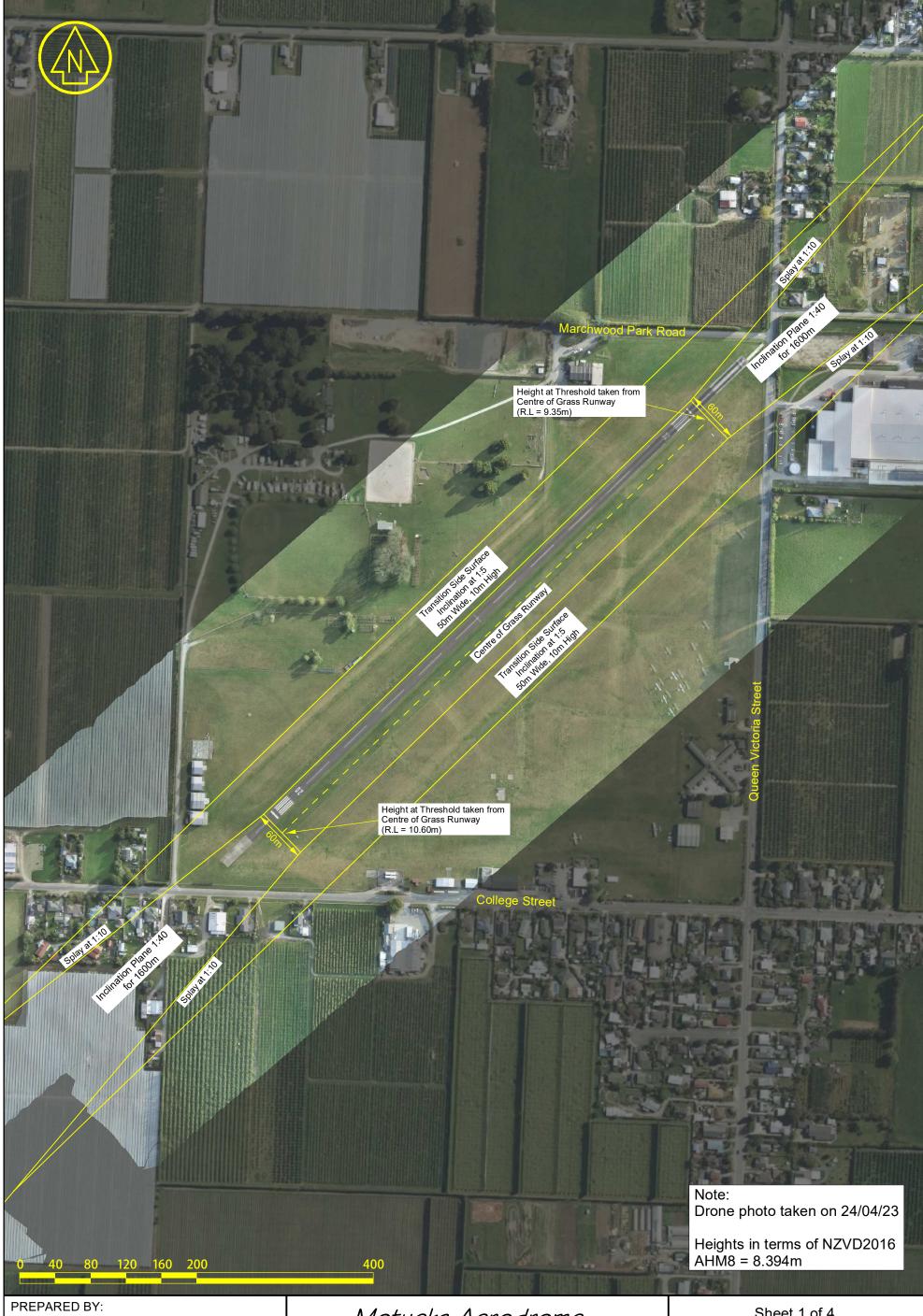
April 2023

Pt#	Description	Position		Ground Level	Obstruction Height		Dist. Along CL From Start TO	Controlling Surface	Surface Level	Current Intrusion	Current Clearance
		mN	mE	m	m	m	m	m	m	m	m
113	HEDGE	41 07 04.595	172 59 42.372	9.0	6.1	15.1	114	FAN	15.2	-	0.2
116	LIGHT POLE	41 07 03.904	172 59 43.023	9.0	5.8	14.8	140	FAN	16.5	-	1.7
117	SIGN	41 07 05.420	172 59 42.233	9.2	2.6	11.8	94	FAN	14.2	-	2.5
123	HEDGE	41 07 05.187	172 59 42.977	8.9	4.5	13.4	111	FAN	15.1	-	1.7
124	HEDGE	41 07 04.276	172 59 43.036	8.9	4.8	13.7	132	FAN	16.1	-	2.4
250	FENCE POST	41 07 05.122	172 59 42.085	9.2	1.1	10.3	98	FAN	14.4	-	4.1
	ROAD SIGN	41 07 05.220	172 59 42.360	9.0	3.0	12.0	100	FAN	14.6	-	2.6
263	FENCE POST	41 07 05.251	172 59 42.248	9.2	1.3	10.5	98	FAN	14.4	-	4.0
267	APEX	41 07 03.590	172 59 43.800	8.9	5.9	14.8	159	FAN	17.5	-	2.7
270	ROAD SIGN	41 07 03.814	172 59 42.975	9.0	3.2	12.2	141	FAN	16.6	-	4.4
274	HEDGE	41 07 04.183	172 59 43.475	8.8	6.7	15.5	141	FAN	16.6	-	1.1
2153	HEDGE	41 07 04.219	172 59 44.361	8.8	7.1	15.9	155	FAN	17.3	-	1.4
2158	TREE	41 07 02.815	172 59 44.465	9.2	7.9	17.1	187	FAN	18.9	-	1.8

Notes:

Heights in terms of NZVD2016

Obstruction List



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P.O.BOX 380 - 181 HIGH STREET - BLENHEIM
PHONE (03)5787984 - FAX (03)5787709
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Motueka Aerodrome Obstacle Limitation Surface Grass Runway Night Definition

Sheet	1 of 4	
SCALE 1:4000	- /	Δ
DATE 02/06/2023	DRAWN JC	
JOB REF 20235126		

CAD FILE MOTUEKA - Grass Night OLS



PREPARED BY:

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Motueka Aerodrome Obstacle Limitation Survey Grass Runway 20 Night Approach/Take-off Sheet 2 of 4

 SCALE 1:1500
 - A3
 DATE 02/06/2023

 DRAWN JC
 JOB REF 20235126

 CAD FILE MOTUEKA - Grass Night NE



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Motueka Aerodrome Obstacle Limitation Survey Grass Runway 20 Night Approach/Take-off Sheet 3 of 4

 SCALE 1:1500
 - A3
 DATE 02/06/2023

 DRAWN JC
 JOB REF 20235126

 CAD FILE MOTUEKA - Grass Night NE 2



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REGISTERED SURVEYORS

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Motueka Aerodrome Obstacle Limitation Survey Grass Runway O2 Night Approach/Take-off Sheet 4 of 4

	_						
SCALE 1:1500 - A3	DATE 02/06/2023						
DRAWN JC	JOB REF 20235126						
CAD FILE MOTUEKA - Grass Night SW							

Motueka Airport Obstruction Survey

Fan Origin Pt Coords: 41 07 23.0752 S

172 59 18.7833 E

225.9178

Surface Slope (%): 2.5

Controlling Fan:

Obstruction List April 2023

Circuit Bearing of CL (dec°):

Divergence (%): 10
Inner Edge (m): 60

Approach / Takeoff

Grass Runway 02 Night (Approach & Takeoff)

IE Elevation (m): 10.6

Pt#	Description	Position					Dist. Along CL	•	Surface	Current	Current
		N I	.	Level	Height		From Start TO	Surface	Level	Intrusion	Clearance
		mN	mE	m	m	m	m	m	m	m	m
206	POWER	41 07 28.136	172 59 13.192	10.8	8.7	19.5	202	FAN	15.6	3.9	-
207	POWER POLE	41 07 27.028	172 59 12.862	10.8	5.9	16.7	184	FAN	15.2	1.5	-
208	APEX	41 07 25.939	172 59 13.953	11.1	5.5	16.6	142	FAN	14.2	2.4	-
209	APEX	41 07 25.975	172 59 15.627	10.9	4.8	15.7	115	FAN	13.4	2.3	-
216	POWER POLE	41 07 27.232	172 59 17.068	10.6	8.1	18.7	118	TRANSITION	17.5	1.1	-
218	POWER POLE	41 07 27.093	172 59 14.674	10.8	8.7	19.5	155	FAN	14.5	5.0	-
219	POWER POLE	41 07 27.065	172 59 13.222	11.0	8.7	19.7	179	FAN	15.1	4.6	-
220	APEX	41 07 26.124	172 59 16.874	10.8	4.7	15.5	97	FAN	13.0	2.5	-
222	APEX	41 07 25.858	172 59 16.962	10.8	3.9	14.7	90	FAN	12.9	1.9	
223	PALM TREE	41 07 26.772	172 59 17.040	10.6	6.8	17.4	108	TRANSITION	15.4	2.0	-
473	HEDGE	41 07 24.919	172 59 13.251	11.2	5.5	16.7	132	TRANSITION	14.2	2.5	-
478	HEDGE	41 07 24.798	172 59 13.363	11.2	6.0	17.2	128	TRANSITION	14.4	2.8	-
480	TREE	41 07 24.892	172 59 11.719	11.1	11.1	22.2	158	TRANSITION	19.4	2.8	-
485	TREE	41 07 26.725	172 59 10.125	11.1	8.0	19.1	224	TRANSITION	16.4	2.7	-
486	TREE	41 07 26.813	172 59 10.130	11.1	9.8	20.9	225	TRANSITION	15.9	5.0	-
1021	SIGN	41 07 24.877	172 59 13.732	11.1	2.5	13.6	123	TRANSITION	13.6	-	0.04
1026	TREE	41 07 25.586	172 59 16.488	10.8	8.2	19.0	92	FAN	12.9	6.1	-
1033	APEX	41 07 25.905	172 59 11.671	11.1	3.9	15.0	180	TRANSITION	15.0	-	0.02
1039	FLAG POLE	41 07 25.877	172 59 17.528	10.5	5.5	16.0	81	FAN	13.0	3.0	-
2001	APEX	41 07 26.069	172 59 12.481	11.0	4.3	15.3	170	FAN	14.8	0.5	-
2017	TREE	41 07 28.270	172 59 11.911	10.6	8.4	19.0	227	FAN	16.3	2.8	-
2019	TREE	41 07 28.577	172 59 12.393	10.7	8.2	18.9	225	FAN	16.2	2.7	-
2036	APEX	41 07 26.659	172 59 15.590	10.8	4.9	15.7	130	FAN	13.9	1.8	-
2059	TREE	41 07 27.865	172 59 10.929	10.8	8.5	19.3	234	FAN	16.4	2.9	-
2060	TREE	41 07 27.706	172 59 11.435	10.7	7.1	17.8	223	FAN	16.2	1.6	-
2079	HEDGE	41 07 24.884	172 59 12.106	11.2	7.2	18.4	151	TRANSITION	18.2	0.2	-
2091	TREE	41 07 27.303	172 59 08.377	11.2	10.1	21.3	265	TRANSITION	19.4	1.9	
2125	APEX	41 07 27.218	172 59 09.629	11.1	6.7	17.8	243	TRANSITION	15.7	2.1	-

WGS 84

Notes:

Heights in terms of NZVD2016

Motueka Airport Obstruction Survey

Fan Origin Pt Coords: 41 07 07.9565 S

Controlling Fan : Approach / Takeoff

WGS 84

172 59 39.5737 E

45.9178

Surface Slope (%): 2.5

Obstruction List

April 2023

Circuit Bearing of CL (dec°):

Divergence (%):
Inner Edge (m):

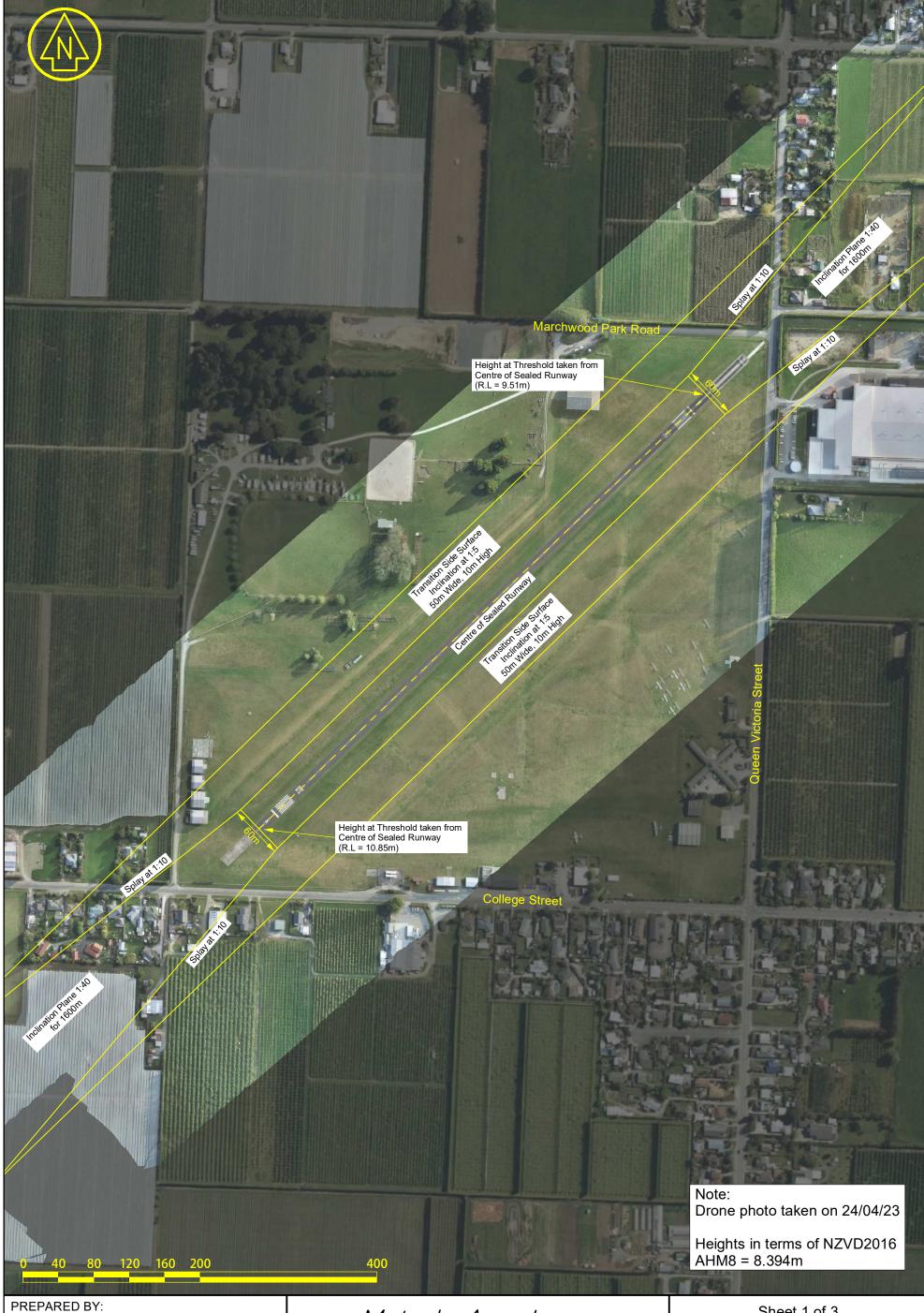
10 60

Grass Runway 20 Night (Approach & Takeoff)

IE Elevation (m): 9.35

Pt#	Description	Position		Ground	Obstruction	Height of Top	Dist. Along CL	Controlling	Surface	Current	Current
				Level	Height	of Obstruction	From Start TO	Surface	Level	Intrusion	Clearance
		mN	mE	m	m	m	m	m	m	m	m
113	HEDGE	41 07 04.595	172 59 42.372	9.0	6.1	15.1	119	FAN	12.3	2.8	-
116	LIGHT POLE	41 07 03.904	172 59 43.023	9.0	5.8	14.8	145	FAN	13.0	1.8	-
117	SIGN	41 07 05.420	172 59 42.233	9.2	2.6	11.8	99	FAN	11.8	-	0.04
123	HEDGE	41 07 05.187	172 59 42.977	8.9	4.5	13.4	116	FAN	12.2	1.2	-
124	HEDGE	41 07 04.276	172 59 43.036	9.0	4.7	13.7	137	FAN	12.8	0.9	-
253	ROAD	41 07 05.220	172 59 42.360	9.0	3.0	12.0	105	FAN	12.0	-	0.03
262	HEDGE	41 07 04.623	172 59 40.975	9.4	7.2	16.6	95	TRANSITION	13.7	3.0	-
267	APEX	41 07 03.590	172 59 43.800	8.9	5.9	14.8	164	FAN	13.5	1.3	-
271	POLE	41 07 03.163	172 59 43.049	9.2	4.6	13.8	161	TRANSITION	13.4	0.4	
272	APEX	41 07 02.647	172 59 43.728	9.1	5.2	14.3	183	TRANSITION	13.5	0.8	-
274	HEDGE	41 07 04.183	172 59 43.475	8.8	6.7	15.5	146	FAN	13.0	2.5	-
275	POWER POLE	41 07 03.974	172 59 45.778	8.6	6.6	15.2	189	FAN	14.1	1.1	-
276	POWER POLE	41 07 03.980	172 59 46.842	8.5	7.8	16.3	207	FAN	14.5	1.8	-
277	POWER POLE	41 07 03.988	172 59 47.989	8.4	8.6	17.0	226	FAN	15.0	2.0	-
487	POPLAR TREE	41 06 45.477	173 00 18.557	5.9	37.3	43.2	1136	FAN	37.8	5.4	-
495	TREE	41 07 02.456	172 59 43.096	9.2	15.3	24.5	177	TRANSITION	16.4	8.1	
2023	HEDGE	41 06 59.473	172 59 54.138	7.7	14.6	22.3	426	FAN	20.0	2.3	
2039	HEDGE	41 07 04.331	172 59 48.093	8.4	7.1	15.5	221	TRANSITION	14.8	0.8	
2146	HEDGE	41 07 07.637	172 59 42.863	9.2	6.7	15.9	62	TRANSITION	12.6	3.3	-
2147	HEDGE	41 07 08.255	172 59 42.804	9.2	6.7	15.9	48	TRANSITION	15.1	0.8	-
2149	HEDGE	41 07 06.341	172 59 42.890	9.0	3.9	12.9	90	FAN	11.6	1.3	-
2153	HEDGE	41 07 04.219	172 59 44.361	8.8	7.1	15.9	160	FAN	13.3	2.6	-
2155	HEDGE	41 06 59.345	172 59 49.589	8.2	13.4	21.6	353	FAN	18.2	3.4	
2158	TREE	41 07 02.815	172 59 44.465	9.2	7.9	17.1	192	FAN	14.1	3.0	-

Notes:



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Motueka Aerodrome Obstacle Limitation Surface Sealed Runway Night Definition

Sheet	1 of 3	
SCALE 1:4000		- A
DATE 01/06/2023	DRAWN JC	
JOB REF 20235126		

CAD FILE MOTUEKA - Sealed Night OLS



PREPARED BY:

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REGISTERED SURVEYORS

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Motueka Aerodrome Obstacle Limitation Survey Sealed Runway O2 Night Approach/Take-off Sheet 2 of 3

	_
SCALE 1:1500 - A3	DATE 01/06/2023
DRAWN JC	JOB REF 20235126
CAD FILE MOTUEKA - Sealed Nigh	nt SW



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Motueka Aerodrome Obstacle Limitation Survey Sealed Runway 20 Night Approach/Take-off

Sheet 3 of 3

SCALE 1:1500 - A	3 DATE 01/06/2023
DRAWN JC	JOB REF 20235126
CAD FILE MOTUEKA - Sealed Ni	aht NF

Gilbert Haymes and Associates Ltd

Job # 20235126

172 59 17.6553 E

Motueka Airport Obstruction Survey

Fan Origin Pt Coords: 41 07 22.9601 S

Surface Slope (%): 2.5

Obstruction List April 2023

Circuit Bearing of CL (dec°): 225.9178

Divergence (%):

Circuit Bearing of CL (dec).

WGS 84

Inner Edge (m):

Controlling Fan:

60

Approach / Takeoff

Sealed Runway 02 Night (Approach & Takeoff)

IE Elevation (m): 10.85

Pt#	Description	Position		Ground Level	Obstruction Height	•	Dist. Along CL From Start TO	Controlling Surface	Surface Level	Current Intrusion	Current Clearance
		mN	mE	m	m	m	m	m	m	m	m
202	APEX	41 07 22.524	172 59 14.973	11.2	6.3	17.5	36	TRANSITION	15.5	2.1	-
203	SHED CNR	41 07 22.772	172 59 14.960	11.2	4.8	16.0	41	TRANSITION	14.4	1.6	-
206	POWER POLE	41 07 28.136	172 59 13.192	10.8	8.7	19.5	186	FAN	15.5	4.0	-
207	POWER POLE	41 07 27.028	172 59 12.862	10.8	5.9	16.7	168	FAN	15.0	1.7	-
208	APEX	41 07 25.939	172 59 13.953	11.1	5.5	16.6	126	FAN	14.0	2.6	-
209	APEX	41 07 25.975	172 59 15.627	11.1	4.6	15.7	99	FAN	13.3	2.4	-
218	POWER POLE	41 07 27.093	172 59 14.674	10.8	8.7	19.5	139	FAN	14.3	5.2	-
219	POWER POLE	41 07 27.065	172 59 13.222	11.0	8.7	19.7	162	FAN	14.9	4.8	-
225	POLE	41 07 24.695	172 59 12.136	11.2	5.7	16.9	130	TRANSITION	15.0	1.9	-
226	POLE	41 07 24.493	172 59 12.151	11.2	5.7	16.9	125	TRANSITION	15.8	1.1	-
227	POLE	41 07 24.292	172 59 12.165	11.2	5.5	16.7	121	TRANSITION	16.7	0.0	-
473	HEDGE	41 07 24.919	172 59 13.251	11.2	5.6	16.7	116	FAN	13.7	3.0	-
474	TREE	41 07 24.844	172 59 10.781	11.1	20.0	31.1	156	TRANSITION	18.7	12.4	-
475	TREE	41 07 24.668	172 59 11.328	11.1	17.6	28.7	143	TRANSITION	17.7	11.0	-
478	HEDGE	41 07 24.798	172 59 13.363	11.2	6.0	17.2	111	FAN	13.6	3.6	-
480	TREE	41 07 24.892	172 59 11.719	11.1	11.1	22.2	141	TRANSITION	15.5	6.7	-
481	TREE	41 07 25.427	172 59 10.186	11.2	9.8	21.0	178	TRANSITION	18.0	3.0	-
484	HEDGE	41 07 23.302	172 59 13.422	11.3	5.9	17.2	78	TRANSITION	17.0	0.2	-
485	TREE	41 07 26.725	172 59 10.125	11.1	8.0	19.1	207	FAN	16.0	3.1	-
486	TREE	41 07 26.813	172 59 10.130	11.1	9.8	20.9	209	FAN	16.1	4.8	-
1021	SIGN	41 07 24.877	172 59 13.732	11.1	2.5	13.6	107	FAN	13.5	0.1	-
1026	TREE	41 07 25.586	172 59 16.488	10.8	8.2	19.0	76	TRANSITION	12.8	6.2	-
1033	APEX	41 07 25.905	172 59 11.671	11.1	3.9	15.0	164	FAN	14.9	0.0	-
1034	APEX	41 07 25.907	172 59 10.786	11.2	4.3	15.5	179	FAN	15.3	0.1	
1043	WIND SOCK	41 07 21.497	172 59 14.905	11.0	9.2	20.2	15	TRANSITION	20.2		0.1
2001	APEX	41 07 26.069	172 59 12.481	11.0	4.3	15.3	153	FAN	14.6	0.7	-
2017	TREE	41 07 28.270	172 59 11.911	10.6	8.4	19.0	210	FAN	16.1	2.9	-

2019	TREE	41 07 28.577	172 59 12.393	10.7	8.2	18.9	209	FAN	16.1	2.9	-
2036	APEX	41 07 26.659	172 59 15.590	10.8	4.9	15.7	114	TRANSITION	14.6	1.0	-
2059	TREE	41 07 27.865	172 59 10.929	10.8	8.5	19.3	218	FAN	16.2	3.1	-
2060	TREE	41 07 27.706	172 59 11.435	10.7	7.1	17.8	206	FAN	16.0	1.8	-
2068	TREE	41 07 26.388	172 59 08.536	11.2	8.6	19.8	227	TRANSITION	19.1	0.7	-
2069	TREE	41 07 26.791	172 59 07.716	11.4	8.6	20.0	249	TRANSITION	19.9	0.0	-
2072	TREE	41 07 25.395	172 59 09.993	11.2	8.9	20.1	181	TRANSITION	18.8	1.3	-
2079	HEDGE	41 07 24.884	172 59 12.106	11.2	7.2	18.4	134	TRANSITION	14.2	4.1	-
2085	HEDGE	41 07 24.044	172 59 13.357	11.2	5.8	17.0	95	TRANSITION	13.9	3.1	-
2090	TREE	41 07 27.717	172 59 06.654	11.5	11.1	22.6	287	TRANSITION	19.3	3.4	-
2091	TREE	41 07 27.303	172 59 08.377	11.2	10.1	21.3	249	FAN	17.1	4.2	-
2125	APEX	41 07 27.218	172 59 09.629	11.1	6.8	17.8	226	FAN	16.5	1.3	-
2130	NETTING	41 07 28.249	172 59 11.067	10.7	5.7	16.4	224	FAN	16.5	-	0.1

Notes:

Motueka Airport Obstruction Survey

Fan Origin Pt Coords: 41 07 07.1340 S

Controlling Fan: Approach / Takeoff

WGS 84

172 59 39.4183 E

Surface Slope (%): 2.5

Obstruction List

April 2023

Circuit Bearing of CL (dec°): 45.9178

Divergence (%): Inner Edge (m):

IE Elevation (m):

10 60 9.51

Sealed Runway 20 Night (Approach & Takeoff)

Pt#	Description	Position		Ground Level	Obstruction Height		Dist. Along CL From Start TO	Controlling Surface	Surface Level	Current Intrusion	Current Clearance
		mN	mE	m	m	m	m	m	m	m	m
113	HEDGE	41 07 04.595	172 59 42.372	9.0	6.1	15.1	104	FAN	12.1	3.0	-
116	LIGHT POLE	41 07 03.904	172 59 43.023	9.0	5.8	14.8	130	FAN	12.7	2.1	-
117	SIGN	41 07 05.420	172 59 42.233	9.2	2.6	11.8	84	FAN	11.6	0.2	-
123	HEDGE	41 07 05.187	172 59 42.977	8.9	4.5	13.4	101	FAN	12.0	1.4	-
124	HEDGE	41 07 04.276	172 59 43.036	9.0	4.7	13.7	122	FAN	12.6	1.2	-
253	ROAD SIGN	41 07 05.220	172 59 42.360	9.0	3.0	12.0	90	FAN	11.8	0.2	-
262	HEDGE	41 07 04.623	172 59 40.975	9.4	7.2	16.6	80	FAN	11.5	5.1	-
267	APEX	41 07 03.590	172 59 43.800	8.9	5.9	14.8	149	FAN	13.2	1.6	-
271	POLE	41 07 03.163	172 59 43.049	9.2	4.6	13.8	146	FAN	13.2	0.7	-
272	APEX	41 07 02.647	172 59 43.728	9.1	5.2	14.3	168	FAN	13.7	0.6	-
274	HEDGE	41 07 04.183	172 59 43.475	8.8	6.7	15.5	131	FAN	12.8	2.7	-
275	POWER POLE	41 07 03.974	172 59 45.778	8.6	6.6	15.2	175	FAN	13.9	1.3	-
276	POWER POLE	41 07 03.980	172 59 46.842	8.5	7.8	16.3	192	TRANSITION	13.5	2.8	-
494	TREE	41 07 09.992	172 59 30.607	9.9	18.2	28.1	209	TRANSITION	19.7	8.4	-
495	TREE	41 07 02.456	172 59 43.096	9.2	15.3	24.5	162	FAN	13.6	11.0	-
497	TREE	41 06 59.418	172 59 45.082	8.7	18.0	26.7	260	TRANSITION	19.5	7.2	-
2023	HEDGE	41 06 59.473	172 59 54.138	7.7	14.6	22.3	411	FAN	19.8	2.5	-
2032	HEDGE	41 07 02.772	172 59 42.502	9.2	6.7	15.9	145	TRANSITION	12.9	3.0	-
2052	TREE	41 07 00.639	172 59 45.072	9.0	7.0	16.0	234	FAN	15.4	0.7	-
2149	HEDGE	41 07 06.341	172 59 42.890	9.0	3.9	12.9	75	TRANSITION	11.2	1.7	-
2153	HEDGE	41 07 04.219	172 59 44.361	8.8	7.1	15.9	145	FAN	13.1	2.8	-
2155	HEDGE	41 06 59.345	172 59 49.589	8.2	13.4	21.6	338	FAN	18.0	3.6	-
2158	TREE	41 07 02.815	172 59 44.465	9.2	7.9	17.1	177	FAN	13.9	3.2	_

Notes:



GILBERT, HAYMES & ASSOCIATES LTD

REGISTERED SURVEYORS P.O.BOX 380 - 181 HIGH STREET - BLENHEIM PHONE (03)5787984 - FAX (03)5787709 E-MAIL office@gilberthaymes.co.nz

Motueka Aerodrome Obstacle Limitation Surface Definition

Sheet	1 of 6
SCALE 1:5000	- A3
DATE 16/06/2023	DRAWN JC
JOB REF 20235126	
CAD FILE MOTUEKA	A - TRMP OLS



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P.O.BOX 380 - 181 HIGH STREET - BLENHEIM
PHONE (03)5787984 - FAX (03)5787709
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Motueka Aerodrome Transitional Side Surface Definition

Sheet 2 of 6							
SCALE 1:5000	- A3						
DATE 16/06/2023	DRAWN JC						
JOB REF 20235126							
CAD FILE MOTUEKA	A - TRMP Side Surface						



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Motueka Aerodrome Obstacle Limitation Survey TRMP Runway 20 Approach/Take-off

Sneet	3 01 6		
SCALE 1:3000		- A3	
DATE 16/06/2023	DRAWN JC		
JOB REF 20235126			
MOTUEKA - TRMP N	ortheast End		







P.O.BOX 380 - 181 HIGH STREET - BLENHEIM PHONE (03)5787984 - FAX (03)5787709 E-MAIL office@gilberthaymes.co.nz

TRMP Runway O2 Approach/Take-off

Sheet 6 of 6							
SCALE 1:1500	- A3						
DATE 16/06/2023	DRAWN JC						
JOB REF 20235126							
MOTUEKA - TRMP S	outhwest End 2						

Gilbert Haymes and Associates Ltd

Job # 20235126

172 59 39.0830 E

Motueka Airport Obstruction Survey

Fan Origin Pt Coords: 41 07 08.0245 S Controlling Fan: Approach / Takeoff

WGS 84

Surface Slope (%): 2

Obstruction List April 2023 Circuit Bearing of CL (dec°): 45.9178 Divergence (%): 15.15

Inner Edge (m): 150 IE Elevation (m): 9.35

TRMP Runway 20 (Approach & Takeoff)

Pt#	Description	Position					Dist. Along CL	Controlling	Surface	Current	Current
		NI	=	Level	Height		From Start TO	Surface	Level	Intrusion	Clearance
		mN	mE	m	m	m	m	m	m	m	m
113	HEDGE	41 07 04.595	172 59 42.372	9.0	6.1	15.1	129	FAN	11.9	3.2	- 1
116	LIGHT POLE		172 59 43.023	9.0	5.8	14.8	154	FAN	12.4	2.4	_
117	SIGN		172 59 42.233	9.2	2.6	11.8	109	FAN	11.5	0.3	-
124	HEDGE		172 59 43.036	9.0	4.7	13.7	147	FAN	12.3	1.4	-
253	ROAD SIGN	41 07 05.220	172 59 42.360	9.0	3.0	12.0	115	FAN	11.7	0.3	-
257	BUILDING CNR	41 07 08.672	172 59 44.397	7.9	9.0	16.9	76	TRANSITION	13.7	3.2	-
258	BUILDING CNR	41 07 07.623	172 59 44.792	8.0	9.6	17.6	105	FAN	11.4	6.1	-
259	BUILDING CNR	41 07 07.305	172 59 45.658	8.3	10.7	19.0	126	FAN	11.9	7.1	-
260	BUILDING CNR	41 07 06.788	172 59 46.539	8.2	10.8	19.0	152	FAN	12.4	6.7	-
262	HEDGE	41 07 04.623	172 59 40.975	9.4	7.2	16.6	105	FAN	11.5	5.1	-
267	APEX	41 07 03.590	172 59 43.800	8.9	5.9	14.8	174	FAN	12.8	2.0	-
271	POLE	41 07 03.163	172 59 43.049	9.2	4.6	13.8	171	FAN	12.7	1.1	-
272	APEX	41 07 02.647	172 59 43.728	9.1	5.2	14.3	193	FAN	13.2	1.1	-
274	HEDGE	41 07 04.183	172 59 43.475	8.8	6.7	15.5	156	FAN	12.5	3.0	-
275	POWER POLE	41 07 03.974	172 59 45.778	8.6	6.6	15.2	199	FAN	13.4	1.8	-
276	POWER POLE	41 07 03.980	172 59 46.842	8.5	7.8	16.3	217	FAN	13.7	2.6	-
277	POWER POLE	41 07 03.988	172 59 47.989	8.4	8.6	17.0	236	FAN	14.1	2.9	-
278	POWER POLE	41 07 00.704	172 59 42.635	9.4	7.8	17.2	216	FAN	13.7	3.5	-
279	POWER POLE	41 07 00.571	172 59 43.202	9.4	7.3	16.7	229	FAN	13.9	2.8	-
280	APEX	41 07 00.444	172 59 43.877	9.2	5.4	14.6	243	FAN	14.2	0.4	-
281	TREE	41 06 59.982	172 59 43.387	9.4	7.6	17.0	244	FAN	14.2	2.7	-
282	APEX	41 06 59.515	172 59 43.902	9.2	5.6	14.8	263	FAN	14.6	0.1	-
284	TREE	41 06 59.143	172 59 43.324	9.3	10.2	19.5	261	TRANSITION	18.7	0.8	-
285	HEDGE	41 07 01.498	172 59 42.579	9.3	6.2	15.5	198	FAN	13.3	2.2	-
479	TREE	41 07 13.626	172 59 24.664	10.3	18.9	29.2	362	TRANSITION	15.9	13.3	-
487	POPLAR TREE	41 06 45.477	173 00 18.557	5.9	37.3	43.2	1146	FAN	32.3	10.9	
488	POPLAR TREE	41 06 45 494	173 00 21.358	5.5	38.0	43.5	1193	FAN	33.2	10.3	-
494	TREE	41 07 09.992	172 59 30.607	9.9	18.2	28.1	185	TRANSITION	12.8	15.3	-
495	TREE	41 07 02.456	172 59 43.096	9.2	15.3	24.5	187	FAN	13.1	11.4	-

496	TREE	41 06 58.924	172 59 45.341	8.7	19.8	28.5	300	FAN	15.3	13.2	-
497	TREE	41 06 59.418	172 59 45.082	8.7	18.0	26.7	285	FAN	15.0	11.7	-
2013	TREE	41 07 09.752	172 59 28.682	10.0	15.3	25.3	212	TRANSITION	19.2	6.1	-
2014	TREE	41 07 09.791	172 59 29.273	10.0	14.3	24.3	203	TRANSITION	17.4	6.9	-
2016	TREE	41 06 57.836	172 59 45.671	8.7	7.8	16.5	329	FAN	15.9	0.5	-
2023	HEDGE	41 06 59.473	172 59 54.138	7.7	14.6	22.3	436	FAN	18.1	4.2	-
2024	TREE	41 06 54.070	172 59 49.994	8.9	11.4	20.3	482	FAN	19.0	1.3	-
2038	HEDGE	41 07 04.414	172 59 50.422	8.0	8.9	16.9	268	FAN	14.7	2.2	-
2039	HEDGE	41 07 04.331	172 59 48.093	8.4	7.1	15.5	230	FAN	13.9	1.6	-
2040	HEDGE	41 07 09.669	172 59 42.727	9.0	6.8	15.8	26	TRANSITION	12.9	2.9	-
2052	TREE	41 07 00.639	172 59 45.072	9.0	7.0	16.0	259	FAN	14.5	1.5	-
2067	TREE	41 07 09.612	172 59 28.339	10.0	14.1	24.1	215	TRANSITION	20.7	3.3	-
2075	TREE	41 06 58.119	172 59 45.187	8.8	8.4	17.2	314	FAN	15.6	1.5	-
2107	TREE	41 07 10.397	172 59 28.851	10.0	17.2	27.2	223	TRANSITION	16.3	10.9	-
2108	TREE	41 07 09.518	172 59 29.742	10.0	16.6	26.6	189	TRANSITION	17.1	9.5	-
2110	TREE	41 07 08.889	172 59 29.664	10.0	16.2	26.2	177	TRANSITION	19.7	6.4	-
2111	APEX	41 07 07.221	172 59 33.841	10.1	7.5	17.6	71	TRANSITION	14.3	3.3	-
2146	HEDGE	41 07 07.637	172 59 42.863	9.2	6.7	15.9	72	FAN	10.8	5.1	-
2149	HEDGE	41 07 06.341	172 59 42.890	9.0	3.9	12.9	100	FAN	11.4	1.5	-
2153	HEDGE	41 07 04.219	172 59 44.361	8.8	7.1	15.9	170	FAN	12.7	3.2	-
2155	HEDGE	41 06 59.345	172 59 49.589	8.2	13.4	21.6	362	FAN	16.6	5.0	-
2158	TREE	41 07 02.815	172 59 44.465	9.2	7.9	17.1	202	FAN	13.4	3.7	-

Notes:

Gilbert Haymes and Associates Ltd

Job # 20235126

172 59 18.9014 E

Motueka Airport Obstruction Survey

Fan Origin Pt Coords: 41 07 22.7004 S Controlling Fan: Approach / Takeoff

2

10.6

WGS 84 **Obstruction List** April 2023

Circuit Bearing of CL (dec°): 225.9178 Divergence (%): 15.15

Inner Edge (m): 150 IE Elevation (m):

Surface Slope (%):

TRMP Runway 02 (Approach & Takeoff)

Pt#	Description	Position		Ground Level	Obstruction Height	Height of Top of Obstruction	Dist. Along CL From Start TO	Controlling Surface	Surface Level	Current Intrusion	Current Clearance
		mN	mE	m	m	m	m	m	m	m	m
201	APEX	41 07 21.889	172 59 15.008	11.2	5.9	17.1	48	FAN	11.6	5.6	-
202	APEX	41 07 22.524	172 59 14.973	11.2	6.3	17.5	62	FAN	11.8	5.7	-
203	SHED CNR	41 07 22.772	172 59 14.960	11.2	4.8	16.0	68	FAN	12.0	4.0	-
206	POWER POLE	41 07 28.136	172 59 13.192	10.8	8.7	19.5	212	FAN	14.8	4.7	-
207	POWER POLE	41 07 27.028	172 59 12.862	10.8	5.9	16.7	194	FAN	14.4	2.3	-
208	APEX	41 07 25.939	172 59 13.953	11.1	5.5	16.6	152	FAN	13.7	2.9	-
209	APEX	41 07 25.975	172 59 15.627	11.1	4.6	15.7	125	FAN	13.1	2.6	-
216	POWER POLE	41 07 27.232	172 59 17.068	10.6	8.1	18.7	128	FAN	13.2	5.5	-
218	POWER POLE	41 07 27.093	172 59 14.674	10.8	8.7	19.5	165	FAN	13.9	5.6	-
219	POWER POLE	41 07 27.065	172 59 13.222	11.0	8.7	19.7	189	FAN	14.4	5.3	-
220	APEX	41 07 26.124	172 59 16.874	10.8	4.7	15.5	107	FAN	12.7	2.8	-
222	APEX	41 07 25.858	172 59 16.962	10.8	3.9	14.7	100	FAN	12.6	2.1	-
223	PALM TREE	41 07 26.772	172 59 17.040	10.6	6.8	17.4	118	TRANSITION	12.9	4.5	-
225	POLE	41 07 24.695	172 59 12.136	11.2	5.7	16.9	156	FAN	13.7	3.2	-
226	POLE	41 07 24.493	172 59 12.151	11.2	5.7	16.9	152	FAN	13.6	3.3	-
227	POLE	41 07 24.292	172 59 12.165	11.2	5.5	16.7	147	FAN	13.5	3.2	-
228	POLE	41 07 24.085	172 59 12.176	11.2	5.7	16.9	143	FAN	13.5	3.4	-
229	POLE	41 07 23.886	172 59 12.193	11.2	5.7	16.9	138	FAN	13.4	3.5	-
230	POLE	41 07 23.681	172 59 12.206	11.3	5.6	16.9	134	FAN	13.3	3.6	-
231	POLE	41 07 23.479	172 59 12.224	11.4	5.6	17.0	129	FAN	13.2	3.8	-
232	POLE	41 07 23.286	172 59 12.232	11.4	5.8	17.2	125	FAN	14.0	3.2	-
238	POWER POLE	41 07 38.568	172 58 52.204	12.2	15.7	27.9	788	FAN	26.4	1.6	-
241	TREE	41 07 40.364	172 58 45.173	12.5	20.1	32.6	945	FAN	29.5	3.1	-
473	HEDGE	41 07 24.919	172 59 13.251	11.2	5.5	16.7	142	FAN	13.4	3.3	-
474	TREE	41 07 24.844	172 59 10.781	11.1	20.0	31.1	182	FAN	14.3	16.8	-
475	TREE	41 07 24.668	172 59 11.328	11.1	17.6	28.7	169	FAN	14.0	14.7	-
478	HEDGE	41 07 24.798	172 59 13.363	11.2	6.0	17.2	138	FAN	13.3	3.9	-
480	TREE	41 07 24.892	172 59 11.719	11.1	11.1	22.2	168	FAN	14.0	8.2	-
481	TREE	41 07 25.427	172 59 10.186	11.2	9.8	21.0	205	FAN	14.7	6.3	-

484	HEDGE	41 07 23.302 172 59 13.422	11.3	5.9	17.2	105	FAN	12.7	4.5	
485	TREE	41 07 26.725 172 59 10.125		8.0	19.1	234	FAN	15.3	3.8	_
486	TREE	41 07 26.813 172 59 10.130		9.8	20.9	235	FAN	15.3	5.6	_
1021	SIGN	41 07 24.877 172 59 13.732		2.5	13.6	133	FAN	13.2	0.4	_
1026	TREE	41 07 25.586 172 59 16.488		8.2	19.0	102	FAN	12.7	6.3	_
1033	APEX	41 07 25.905 172 59 11.671	11.1	3.9	15.0	190	FAN	14.4	0.6	_
1034	APEX	41 07 25.907 172 59 10.786	11.2	4.3	15.5	205	FAN	14.7	0.8	-
1039	FLAG POLE	41 07 25.877 172 59 17.528		5.5	16.0	91	FAN	12.4	3.6	-
1041	SHED CNR	41 07 26.654 172 59 18.416	10.5	6.0	16.5	93	FAN	12.5	4.1	-
1043	WIND SOCK	41 07 21.497 172 59 14.905	11.0	9.2	20.2	41	TRANSITION	13.5	6.7	-
1044	APEX	41 07 21.256 172 59 14.912	11.1	5.8	16.9	36	TRANSITION	14.3	2.6	-
1045	APEX	41 07 20.672 172 59 14.943	11.3	5.7	17.0	23	TRANSITION	16.5	0.5	-
2001	APEX	41 07 26.069 172 59 12.481	11.0	4.3	15.3	180	FAN	14.1	1.2	-
2015	TREE	41 07 25.507 172 59 08.515	11.3	7.3	18.6	235	FAN	15.3	3.3	-
2017	TREE	41 07 28.270 172 59 11.911		8.4	19.0	237	FAN	15.3	3.7	-
2018	APEX	41 07 26.021 172 59 19.570	10.3	5.1	15.4	60	TRANSITION	12.3	3.1	-
2019	TREE	41 07 28.577 172 59 12.393	10.7	8.2	18.9	235	FAN	15.3	3.6	-
2059	TREE	41 07 27.865 172 59 10.929	10.8	8.5	19.3	244	FAN	15.4	3.9	-
2060	TREE	41 07 27.706 172 59 11.435	10.7	6.6	17.3	233	FAN	14.8	2.5	-
2068	TREE	41 07 26.388 172 59 08.536	11.2	8.6	19.8	253	FAN	15.7	4.1	-
2069	TREE	41 07 26.791 172 59 07.716	1	8.6	20.0	276	FAN	16.1	3.9	-
2071	TREE	41 07 25.379 172 59 09.360	11.2	9.5	20.7	218	FAN	15.0	5.7	-
2072	TREE	41 07 25.395 172 59 09.993		8.9	20.1	207	FAN	14.7	5.4	-
2073	HEDGE	41 07 29.704 172 59 01.569		8.3	20.3	441	FAN	19.4	0.9	-
2077	TREE	41 07 25.665 172 59 19.601		4.8	15.0	52	FAN	11.6	3.3	-
2078	TREE	41 07 25.676 172 59 19.287		4.4	14.6	57	FAN	11.7	2.9	-
2079	HEDGE	41 07 24.884 172 59 12.106		7.2	18.4	161	FAN	13.8	4.6	-
2086	HEDGE	41 07 23.620 172 59 13.401	11.2	5.8	17.0	112	FAN	12.8	4.2	-
2087	HEDGE	41 07 22.426 172 59 13.478		5.6	16.9	85	TRANSITION	13.8	3.1	-
2090	TREE	41 07 27.717 172 59 06.654		11.1	22.6	313	FAN	16.8	5.8	-
2091	TREE	41 07 27.303 172 59 08.377	11.2	10.1	21.3	275	FAN	16.1	5.2	-
2120	APEX	41 07 25.768 172 59 07.800	11.3	4.3	15.6	252	FAN	15.6	-	0.1
2122	APEX	41 07 25.857 172 59 08.880		4.4	15.7	236	FAN	15.3	0.4	-
2124	APEX	41 07 25.897 172 59 09.886		4.3	15.5	220	FAN	15.0	0.5	-
2125	APEX	41 07 27.218 172 59 09.629		6.7	17.8	253	FAN	15.6	2.2	-
2128	NETTING	41 07 28.114 172 59 06.470		5.7	17.2	325	FAN	17.1	0.1	-
2130	NETTING	41 07 28.249 172 59 11.067		5.7	16.4	250	FAN	15.6	0.8	-
2133	APEX	41 07 30.619 172 59 12.419		6.3	17.2	278	FAN	16.2	1.1	-
2134	POWER POLE	41 07 31.004 172 59 13.040		6.9	17.7	276	FAN	16.1	1.6	-
2137	APEX	41 07 27.674 172 59 12.482		4.1	14.8	214	FAN	14.9	-	0.1
2143	APEX	41 07 24.046 172 59 11.238	11.2	4.4	15.6	158	FAN	13.8	1.9	-

Notes: Heights in terms of NZVD2016