

AGENDA

Takaka Aerodrome User Group 5 March 2024, 3.00pm – 4.30pm Aero Club, Takaka Aerodrome

1. Welcome and Opening Karakia
2. Apologies
3. Minutes of the previous meeting – The 5 December 2023 minutes were confirmed as a true and correct record.
4. Action items from the minutes of the previous meeting

Action	Status	Assigned to:
Straighten the fences when the weather is drier	This was a larger project, and a repair/maintenance plan was needed to be put in place and discussed with Luke.	Luke Jacobson and Council to work together.

5. Managers' & Financials Report
6. Takaka Aerodrome Runway Strength Report
7. AIMMs Report
8. Health & Safety
9. Spraying around Aerodrome
10. Warren Matthew's future possible intentions for Aerodrome usage
11. General business
12. Next meeting date: 3 July 2024
13. Closing Karakia

Takaka Aerodrome User Group

Tasman District Council

Date and Time: 7 December 2023 at 3 pm

Venue: Takaka Aerodrome Aero Club

Present: Ian Orange (Chair)
 Terry Easthope, Murray Bensemam, Shane Fleming

In attendance: Stephen Batt (Senior Enterprise Portfolio Officer), Christina Ewing (Enterprise Portfolio Officer)

Apologies: Cr Chris Hill, Richard Molloy and Luke Jacobson, Ryley Fleming

Meeting opened at 3 pm

1. Welcome

The Chair welcomed everyone to the meeting and Mr Batt said the karakia.

2. Apologies

The apologies were received.

3. Minutes of last meeting – 5 July 2023

That the minutes from the 5 July 2023 meeting be accepted as a true and correct record.

Moved: Murray Bensemam **Seconded:** Ian Orange
CARRIED

4. Action items from the previous meeting

The action items were updated, and the following items discussed:

Action		Status	Assigned to:
	Straighten the fences when the weather is drier.	This was a larger project and a repair/maintenance plan was needed to be put	Luke Jacobson and Council to work together.

		in place and discussed with Luke.	
--	--	-----------------------------------	--

5. Takaka Aerodrome Report & Financials

Mr Batt took the report as read and outlined the financials to the group. As a result of increased maintenance & consultant costs, runway testing, repairs & surveying. The aerodrome as a result, EBIDTA is \$18,500 behind budget.

Management have asked for both aerodromes to be audited for Health and Safety. The information was collated, and we are awaiting the results.

Mr Batt is to undergoing collecting information for the CAA in retrospect, as outlined in part 157. It outlines any changes to the aerodrome from 1992 need to be sent to the CAA. That's any resource consents or improvements to the aerodrome.

There will be changes proposed to the Fees and Charges for the 2024-25 year. There will be an increase in landing fees and a change in the modelling. The public can consult during the submission process. Ms Ewing will inform users when this process is opened to the public.

Ms Ewing will investigate how to invoice landings from the AIMMs information.

6. Health & Safety

A Takaka Driver Safety Guide has been developed with a briefing sign off form. Contractors will be inducted with this document before working on the aerodrome. It was mentioned that a pair of radio sets may be needed for contractors to use. The other document being designed at the moment was a Memorandum of Understanding (MOU), this will be presented at the next meeting.

Users were concerned with the new subdivision going forward across the road, as it may cause issues for the aerodrome's future. Would it be possible to have a noise abatement fan. Mr Batt would investigate. Rod Ward from Sollys has moved on.

Mr Batt is looking to update the AIP; surveys have been completed. Staff are waiting on the results of the testing.

Early next year another Emergency walkthrough will be completed with the services.

A noise register has been initiated. All calls into the main office regarding complaints about noise and the aerodromes will be recorded by date, time, and subject.

Future works – budgets unfortunately are a restraint next year. It was asked if the aerodrome could receive more funding from the resilient fund. Staff would investigate.

Meeting closed at 3.50 pm.

Next meeting 2024 (To be advised)

7. Action Log – December 2023

Action	Status	Assigned to:
Straighten the fences when the weather is drier	This was a larger project, and a repair/maintenance plan was needed to be put in place and discussed with Luke.	Luke Jacobson and Council to work together.

Unconfirmed

Takaka Aerodrome – Managers & Financials Report March 2024

1.1 Revenue is slightly above budget.

1.2 Costs are over budget. Again, due to increased maintenance costs, consultant costs, runway testing, repairs and surveying for the OLS survey, and more accurate assignment of staff time reflecting management tasks and reporting.

1.3 As a result, EBIDTA is \$18,500 behind budget.

1.4 Table – Current Financial Summary

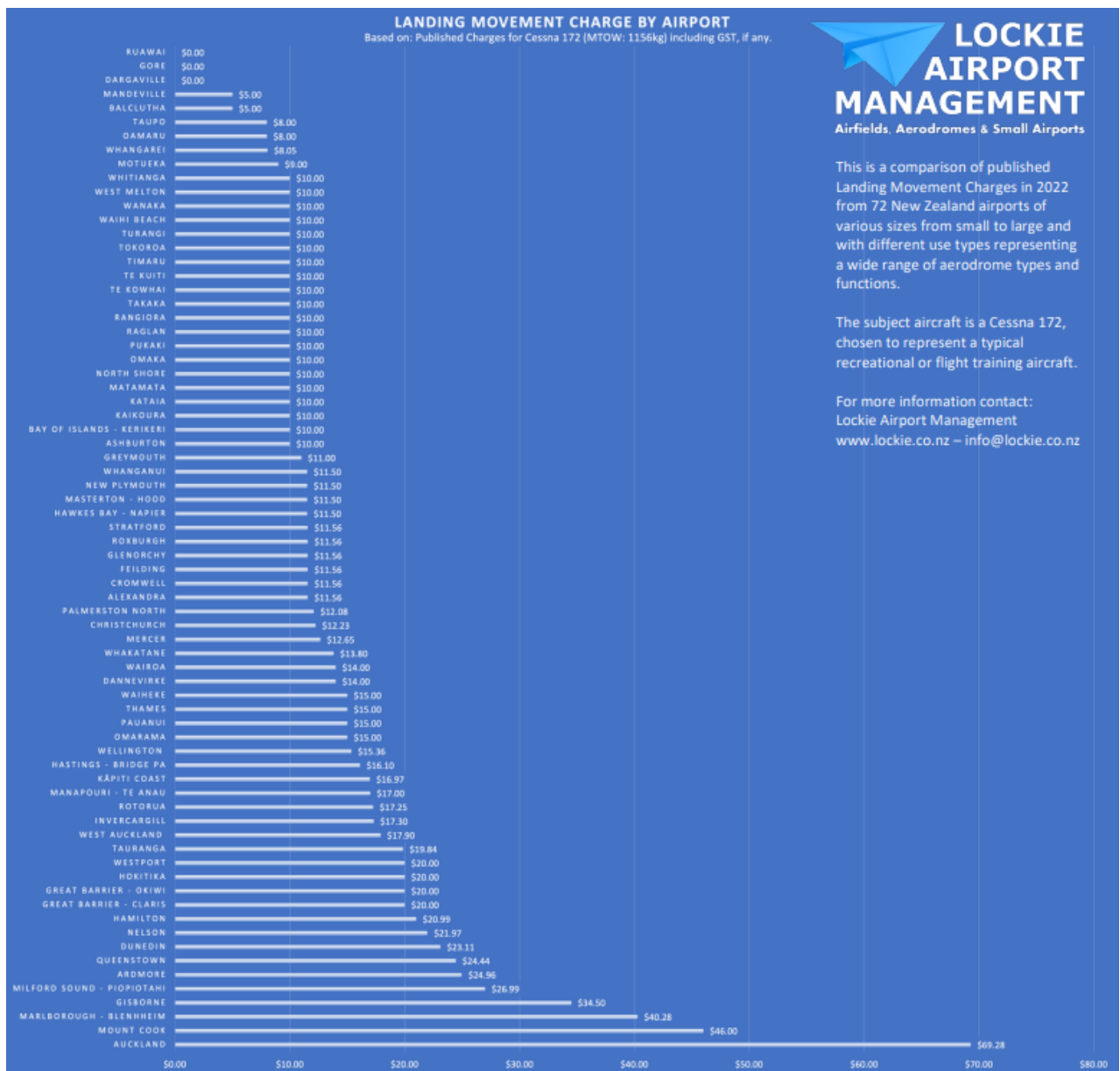
Takaka Aerodrome – Jan 2024	Actual	Budget	Variance	% between actual and budgeted
Revenue	\$28,266	\$24,982	\$3,284	13%
Costs	\$40,218	\$24,819	(\$15,399)	-62%
EBIDTA	(\$11,952)	\$163	(\$12,115)	

Please note on current budget numbers all landing fees will be subsidised by rate payers. Rates contribution to the running of Takaka Aerodrome consists of 80% of total revenue.

1.5 The residential house at the aerodrome has been rented to Jason and Debbie. Thank you to the Chairman for introducing the tenants to Council. Additionally, thanks to Murray Bensemman for assisting with removal of the old clothesline pole.

1.6 Fees and Charges

- As operator, we understand that not all aviators are wealthy, however costs go up. To establish value of anything, it is normal to compare prices across similar providers. We benchmarked our landing fees against 30 smaller aerodromes.
- The proposed fees will not cover the cost of running Takaka Aerodrome and it will continue to be subsidised by ratepayers.
- Table A: Lockie Airport Management – airfields, aerodromes and small airports – charges as at 2022. There has been a 12% inflation change this these figures were done.



This is a comparison of published Landing Movement Charges in 2022 from 72 New Zealand airports of various sizes from small to large and with different use types representing a wide range of aerodrome types and functions.

The subject aircraft is a Cessna 172, chosen to represent a typical recreational or flight training aircraft.

For more information contact:
Lockie Airport Management
www.lockie.co.nz – info@lockie.co.nz

- 1.7 Aeropath have been provided with the updated runway strength and OLS data for updating the AIP.
- 1.8 The draft Part 157 letter to CAA is tabled for this meeting. Please read this with a perspective of “have any other significant changes” occurred that are not covered off in the associated addenda. The Tasman District Council CEO will be asked to approve and send to the CAA, once you have provided your comments.
- 1.9 Compliance Audit – The external Compliance Audit has been conducted and the final report is being drafted. The report will be tabled at the next meeting. Initial feedback is that the aerodrome is a good example of how the airport should be run. Thank you to all the users and volunteers that assist in the efficient running of the aerodrome.

Leonie.rae@tasman.govt.nz
Phone 543 8987

2 February 2024

Sean Rogers
Manager Aeronautical Services
PO Box 3555
Wellington 6140

Dear Sean

Response to the Letter of Expectations Regarding Civil Aviation Rule (CAR) Part 157

Thank you for your letter dated 19 May 2023 setting out the requirements clearly under CAR Part 157 for notification of changes to the infrastructure and layout.

The site visit and on the 13 December 2022 was very useful and we appreciated the opportunity to meet with you and your aerodrome specialist. It provided the opportunity to understand the requirements under Civil Aviation Rule (CAR) Part 157.7 and to also agree to the best way to report the retrospective changes. Please see Appendix 1 for the retrospective Notice CAA 24157/01.

To accurately report all the changes since 8 July 1993, we have taken the following steps:

- Current OLS survey completed by a Registered Surveyor
- Detail all Resource Consents granted at the aerodrome since 8 July 1993.
- All Building Consents granted at the aerodrome since 8 July 1993.
- Detail any significant changes to the layout not captured above.

Tasman District Council has engaged Gilbert Haines and Associates Ltd, Registered Surveyors from Blenheim. This firm was chosen due to their extensive experience with OLS surveys for aerodromes across the South Island. Please see Appendix 2.

The AIP will be updated with the latest information from the survey. The offer for assistance and technical advice from CAA would be appreciated to ensure that this process is fully understood and compliant for both the current update and for future updates. Note below, that starter extensions to be included and appropriately marked physically and on the AIP.

All noted intrusions within the recent OLS survey have been identified and removed. This included all trees trimmed or removed. A couple of fence posts were also lowered to address their encroachments.

Please see the tables for Resource Consents in Appendix 3 and Building Consents in Appendix 4, applicable to Takaka Aerodrome, since 8 July 1993.

Tasman District Council
Email info@tasman.govt.nz
Website www.tasman.govt.nz
24 hour assistance

Richmond
189 Queen Street
Private Bag 4
Richmond 7050
New Zealand
Phone 03 543 8400
Fax 03 543 9524

Murchison
92 Fairfax Street
Murchison 7007
New Zealand
Phone 03 523 1013
Fax 03 523 1012

Motueka
7 Hickmott Place
PO Box 123
Motueka 7143
New Zealand
Phone 03 528 2022
Fax 03 528 9751

Takaka
78 Commercial Street
PO Box 74
Takaka 7142
New Zealand
Phone 03 525 0020
Fax 03 525 9972

A process is being developed internally to ensure that all future infrastructure and layout changes at our aerodromes are formally notified, as per Part 157.7.

Please note the following changes that were not highlighted within the following appendices that we believe require notification.

- 2019 Land purchase for the extension of runway 11/29.
- 2021-2022 physical works completed for runway extension.
- 2023 Partial sealing of section of runway 11/29.
- 2023 Introduction of flight monitoring through AIMMS system.
- 2024 Runway Strength Testing

We thank you for your consideration of the above and please do not hesitate to come back to our Aerodrome Team with any questions.

Yours sincerely

Leonie Rae
Chief Executive Officer

Appendix 3: Resource Consents

15/09/21	RESOURCE CONSENT 210891 : To alter designation D210 Takaka Aerodrome. The alteration involves a minor change to the boundaries of the : Consent Effective 10/02/22
5/12/18	RESOURCE CONSENT 181134 : Boundary adjustment between Lot 1 & PT Lot 2 DP 5303 (CT NL9A/573) and Lot 2 DP 18766 (CT NL12C/45) of 18 Hectares to : Sec 224 Issued 5/11/19 (Found on related property: 1870004400)

Appendix 4: Building Consents

5/05/15	BUILDING CONSENT 150345 : Install new f/s Masport R1500 wood burner. : Code Compliance Certificate issued 25/05/15 (Found on related property: 1870005901)
20/12/11	BUILDING CONSENT 111082 : Construct small passenger terminal : Code Compliance Certificate issued 14/08/15 (Found on related property: 1870005901)
5/10/10	BUILDING CONSENT 101064 : Construct new aircraft hangar : Code Compliance Certificate issued 9/04/14 (Found on related property: 1870005901)
18/11/04	BUILDING CONSENT 041854 : garage / shed : Code Compliance Certificate issued 23/01/14 (Found on related property: 1870005901)
4/08/04	BUILDING CONSENT 041135 : Aircraft Hangar : Code Compliance Certificate issued 18/02/05 (Found on related property: 1870005901)
27/09/93	BUILDING CONSENT 931401 : DWELLING : Recommended to Grant 27/09/93 (Found on related property: 1870006010)

Takaka Aerodrome Runway Bearing Strength

CLIENT

Tasman District Council

Report prepared by:

Joe Borne, Senior Data Collection Technician

Table of Contents

Table of Contents.....	1
1. Introduction.....	1
2. Methodology.....	1
3. Results.....	2
4. Conclusion.....	2
5. Attachments.....	4

1. Introduction

Road Science was approached by the Tasman Alliance to determine the bearing strength of the Takaka Aerodrome sealed runway on behalf of the Tasman District Council. Takaka Aerodrome is 770m in length and 12 metres wide. It is currently utilised by the commercial airline Golden Bay Air, alongside other privately owned aircraft. It’s current published operational data, for it’s sealed runway, gives a runway strength of “ESWL 3000”.

2. Methodology

The pavement bearing strength of a runway is typically expressed by ACN (Aircraft Classification Number) – PCN (Pavement Classification Number). Simply put, ACN is a number that expresses the effect of an aeroplane on a pavement structure. PCN is a number representing the bearing strength of a given pavement section. If the PCN is greater than the ACN, then that particular aircraft can use the runway, under normal conditions, without damaging the pavement. However, in New Zealand runways that are not sealed or only service aircraft below 5700 kg MCTOW have their bearing strength expressed in ESWL (Equivalent Single Wheel Load). The ESWL is a simplified way of accounting for the actual weight of an aeroplane and its landing gear configuration. The ESWL for an aeroplane with one wheel per main landing gear leg is fixed at 45% of the actual weight of the aeroplane. The current published ESWL for Takaka runway is 3000kg. This means that currently, only aircraft with an ESWL of 3000kg or less are able to use the runway without potentially inflicting damage to the pavement. Our methodology for updating the published ESWL value was to perform FWD (Falling Weight Deflectometer) testing on the runway. An FWD measures the pavement surface deflections generated by a dropped load that simulates the effect of a moving wheel on the pavement. Deflections are recorded by geophones spaced along the FWD trailer. The resultant deflection bowl is analysed using numerical modelling software, allowing the calculation of ACN/PCN values.

On November 2nd 2023, FWD testing was carried out at 25m intervals staggered across both sides of Takaka runway. A load of 40KN was chosen for testing as, upon trial, this gave central deflections between 0.2 - 1mm.

Upon completion of testing, ACN/PCN values were calculated for each test point. Dynatest’s ELMOD software was used for this pavement bearing strength analysis. This requires pavement structure and traffic information. A single test pit was dug on the edge of the runway revealing the following pavement structure:

Pavement Layer	Thickness (mm)
Asphalt	40
Well compacted, medium sized gravel	80
Cement stabilised, coarse gravel	230
Firm, clay subgrade	-

Aircraft traffic data supplied by the council was as follows:

Aircraft Weight Summary

Weight	Movements
Up to 600kg	43
600~2900kg	109
2900~5700kg	29
Unspecified	1

These movements cover the month of September 2023, and can be multiplied to give an assumed total movements for a 12 month period.

For ACN/PCN calculation the total runway movements of only the heaviest, and therefore most damage inflicting, aircraft are required. This is known as the "Critical Aircraft". The current published ESWL for Takaka runway is 3000kg. Within the ELMOD software, a McDonnell Douglas DC-3, with an ESWL of 5143g is the nearest approximation. The wheelbase setup of single-single and a tyre pressure of 0.31MPa (45 PSI) is also suitable. The DC-3 is therefore the aircraft that was used for our ACN/PCN calculation

By multiplying the movements of our heaviest aircraft (2900 - 5700kg) by 12, we get 348 total movements per year. This was rounded to 350.

Subgrade stiffness values were back-calculated for each of the 33 FWD test points. Calculated stiffness was found to be dominantly low, with a small section rating at very low. A subgrade stiffness of low was therefore assumed for ACN calculation of 29 of the 33 test points. For the remaining 4 test points, a stiffness of very low was assumed.

Summary of key inputs:

- FWD testing performed at a load of 40KN
- Pavement thickness of 350mm
- Simulated critical aircraft ESWL = 5143kg
- Total critical aircraft movements = 350 per year
- Subgrade has low stiffness, with a small section of very low stiffness

3. Results

The PCN value exceeded the ACN value at all 33 test points along Takaka Runway. Average PCN was 44.2, whereas average ACN was 7.5 on low stiffness subgrade, and 9.2 on very low stiffness subgrade. Therefore, under the simulated conditions of an aircraft with an ESWL of 5143kg, carrying out 350 movements per year, no pavement damage would be expected.

4. Conclusion

The current published ESWL value of 3000kg is conservative. FWD testing and theoretical modelling has shown that an aircraft with an ESWL of 5143kg would not be expected to damage the runway pavement, under normal conditions.

Note that this report is a pavement structure response analysis only and does not relate to the remaining life of the thin asphalt surfacing. All bituminous surfacing, such as chip seals and asphalt, become stiffer and eventually crack due to oxidation caused by UV expose. An assessment of the runway's surfacing to predict the remaining life has not been included in this report. Extending the life of the surfacing is part of sound whole of life asset management principles and not in the scope of this report. Road Science has access to Downer's Transport and Infrastructure Engineering Services Team resources that can provide additional advice on appropriate asset management treatments.

5. Attachments

PCN/ACN

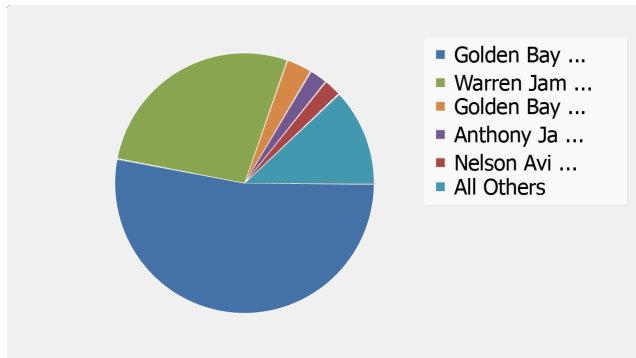
Test Point	PCN	ACN
1	13.1	7.5
2	46.0	7.5
3	33.2	7.5
4	44.4	7.5
5	45.0	7.5
6	55.9	7.5
7	27.2	7.5
8	51.1	7.5
9	68.8	7.5
10	78.8	7.5
11	62.1	7.5
12	46.4	7.5
13	49.2	7.5
14	74.0	7.5
15	53.1	7.5
16	33.4	7.5
17	28.0	7.5
18	58.1	7.5
19	51.1	7.5
20	45.1	7.5
21	49.3	7.5
22	48.5	7.5
23	56.1	7.5
24	46.7	7.5
25	41.0	7.5
26	37.1	7.5
27	24.4	9.2
28	43.7	9.2
29	10.4	9.2
30	30.2	9.2
31	39.1	7.5
32	31.0	7.5
33	36.5	7.5

Dashboard... Management Summary for the month of January 2024

AIRPORT MOVEMENTS. Most Active 10 aircraft

Movements	Aircraft	Operator
136	ZK-ZUG Gippsland GA8	Golden Bay Air Limited
112	ZK-STE Zenair CH701 STOL	Warren James Matthews
54	ZK-ZOG Piper PA-28-181	Golden Bay Air Limited
28	ZK-EVO Britten-Norman BN2A-26	Golden Bay Air Limited
13	ZK-TKA Zenith Zodiac CH 601-XL	Golden Bay Flying Club Inc
9	ZK-ZTH Piper PA-22-150	Anthony James Hay
8	ZK-MJB Zenair Tri-Z CH-300	M Bensemam & C Dixon
7	ZK-WIT Piper PA-28-181	Waikato Aero Club (Inc)
4	ZK-CVM De Havilland Canada DHC-1A-1	Mark Gerard Woodhouse
4	ZK-PAF Piper PA-38-112	Motueka Aero Club (Inc)

Most Active 5 Operators



Operator	Movements	Revenue	\$/move	Retail Val
Golden Bay Air Limited	218	\$1100	\$5.05	\$1100
Warren James Matthews	112	\$140	\$1.25	\$140
Golden Bay Flying Club Inc	13	\$60	\$4.62	\$60
Anthony James Hay	9	\$50	\$5.56	\$50
Nelson Aviation College Ltd	9	\$50	\$5.56	\$50
All Other Operators	50	\$--	--	\$--
Total	411	\$--	--	\$--

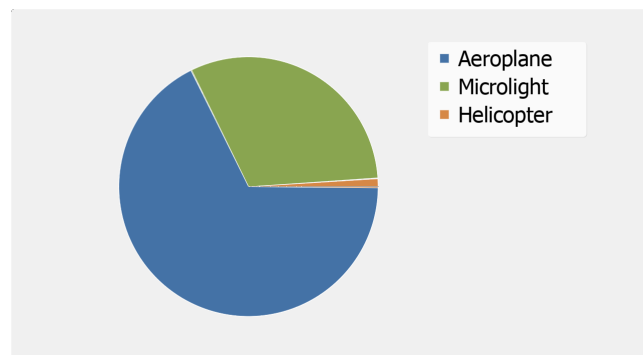
'Movements' is the total count of ALL movements, including Takeoff, Landing and Touch-and-Go.

'Revenue' is actual amount charged each operator.

'Retail Val' is the standard retail value of each operator's movements, before applying any 'one fee a day', exemptions, or special pricing.

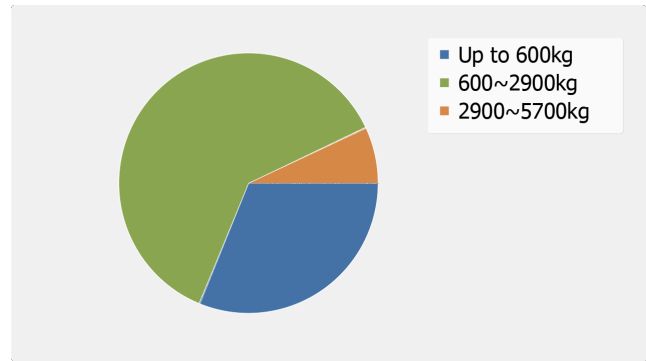
Aircraft Type Summary

Type	Movements
Aeroplane	278
Microlight	128
Helicopter	5



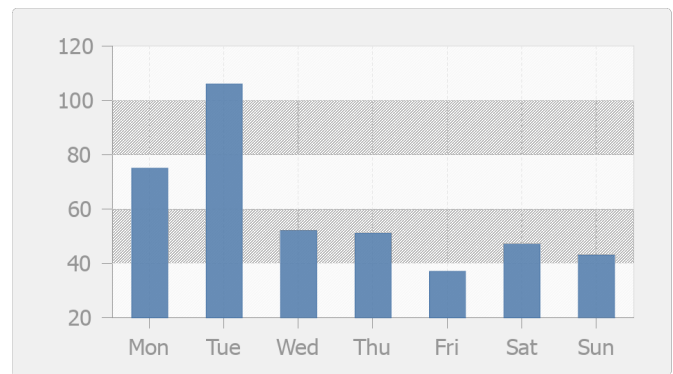
Aircraft Weight Summary

Weight	Movements
Up to 600kg	128
600~2900kg	254
2900~5700kg	29

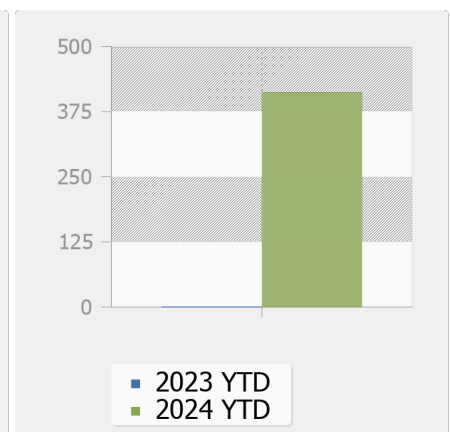
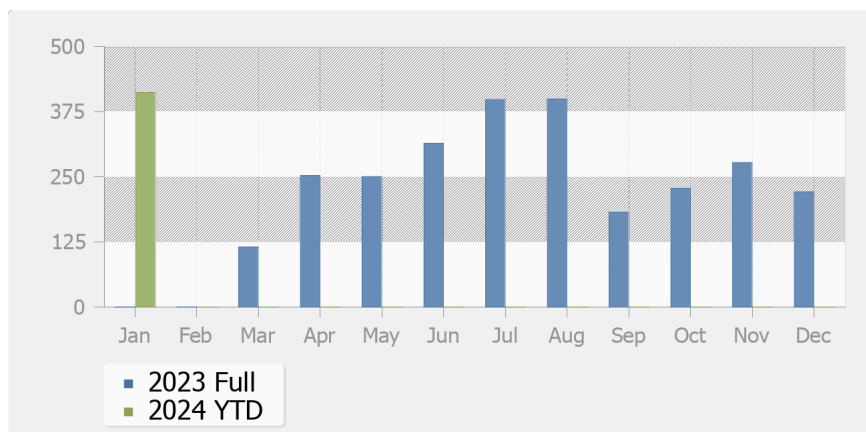


Movements: Days of Week

Weekday	Movements
Mon	75
Tue	106
Wed	52
Thu	51
Fri	37
Sat	47
Sun	43

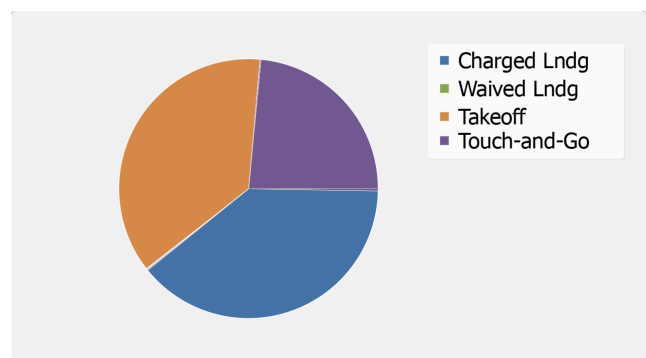


Movements: Months of Year



Charge Summary

Status	Movements
Charged Lndg	161
Waived Lndg	0
Takeoffs	152
Touch-and-Go	98



Charged Landings: Includes chargeable Touch-and-Go movements. Fees for these movements were included in the file of invoices that has been sent to the Airport Billing Dept to be imported into the Airport's Billing system.

Waived Landings: Landings where the fee was waived for Exempt, Annual Bulk Charge, and Public Service aircraft (Rescue, Police, Military etc if they identify as such rather than by aircraft registration.)

Takeoffs: Takeoffs are no charge.

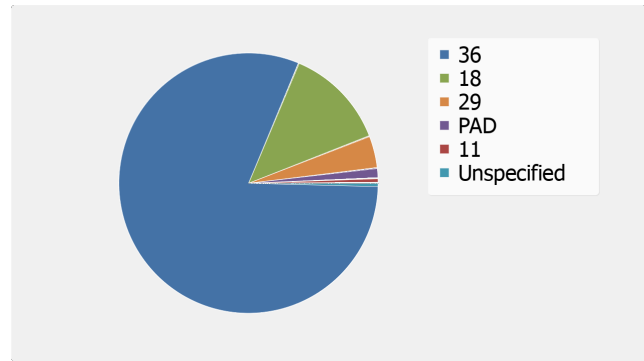
The number of Takeoffs and Landings are usually different due to chargeable Touch-and-Go being included as Landings, visiting aircraft that Landed but did not stop, abandoned Takeoffs, and similar situations.

Touch-and-Go: One x Touch-and-Go or Go-Around movement per aircraft flight session is recorded and charged as a 'Landing'. Other such movements in the same continuous series are recorded as 'Touch-and-Go' at no charge, unless Aimm is instructed otherwise.

(Continued below...)

Runway Usage Summary

Runway	Movements
36	334
18	52
29	16
PAD	5
11	2
Unspecified	2



'FULL ADSB' This report shows movements from ADSB equipped aircraft.

The pilot voice calls from both ADSB equipped aircraft and non-ADSB, have been archived to be fetched in event of an enquiry or incident, but the voice calls are not routinely transcribed.

On request Aimm can transcribe a month's voice calls to check the ADSB %, once a year is recommended.

ACTIVITY LEVEL: During January 2024, the airport had 411 movements**, an annual rate of 5,000 if this continued for 12 months. (Actual 12 month counts will appear once history has accumulated.)

If specified, a Billing File with invoicing details will have been sent to your billing dept for invoicing of aircraft operators. A spreadsheet showing all movements for any period is available on the 'movements / archives' page for deeper analysis.

*** The movement counts on some reports may correctly be different from each other... Touch-and-Go movements may be counted as either one movement or two (a Landing followed by an immediate Takeoff), depending on the Aviation Authority and Safety rules that apply, and the Airport's Certificated/non-Certificated status. (Ref B: 0)*

COMPLIANCE REPORTING

Noise Footprint: The Acoustic LDN counts at NZTK during January 2024 were:

410 during the 'Day', which is set to start at 0700.

1 during the 'Night', set to start at 2200.

Civil Aviation: CAA Rule 139.505 requires Non-Certificated Aerodromes such as Takaka (NZTK) to report Movement Data each year. At the required time, Aimm will send an email with links to CAA Form 24139 / 06 and provide the relevant figures for you to submit to CAA so that NZTK remains in compliance.

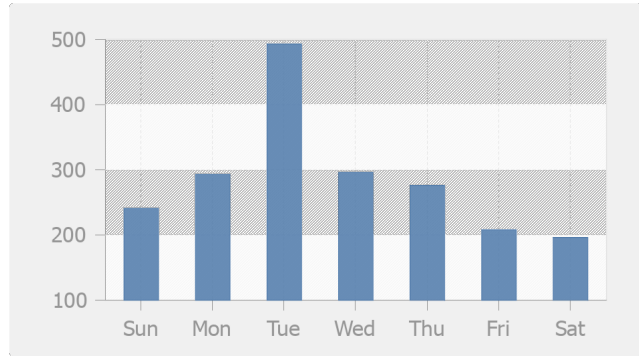
(Continued below...)

LOCAL AIRSPACE Analysis for January (Aircraft using airspace, not necessarily landing.)

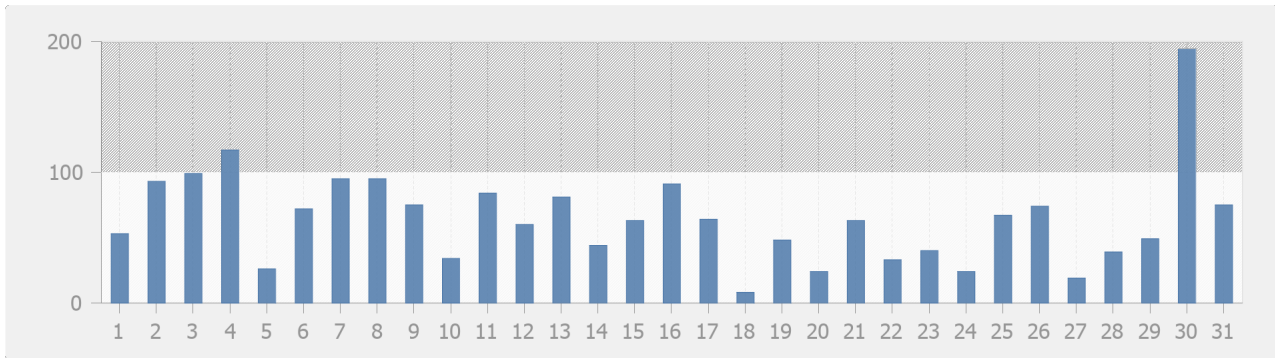
Summary

2003 radio calls received for the month.
 8 calls, on the quietest day, 18-Jan
 194 calls, on the busiest day, 30-Jan
 64 calls, daily average for January
 Tuesday is the busiest day of the week.

Days of Week

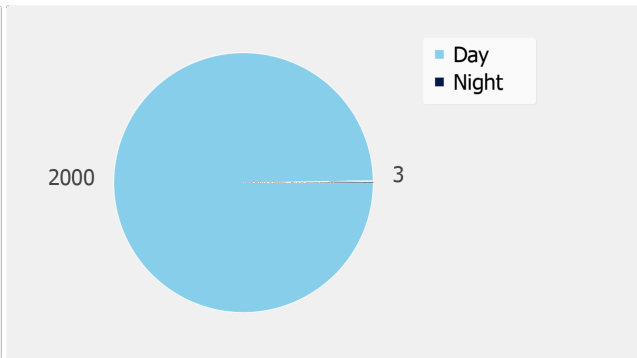
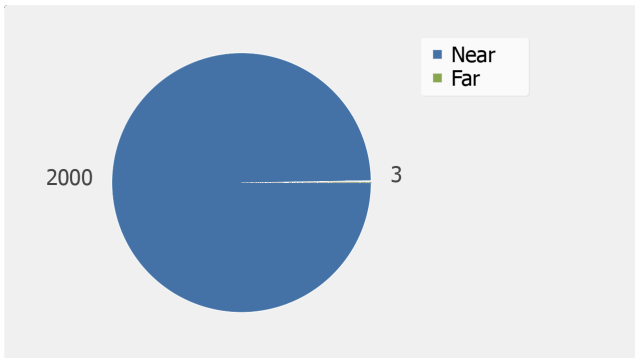


AIRSPACE activity, Days of Month

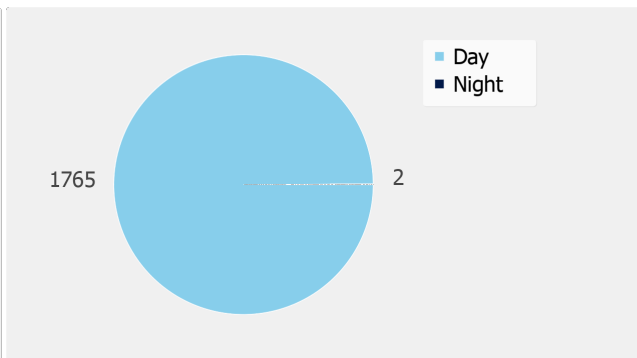
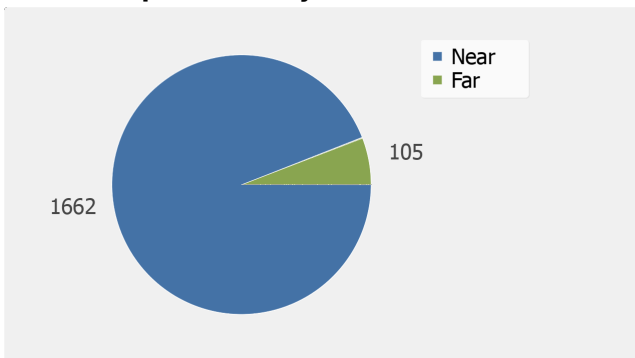


Classification of Local Airspace activity

During January 2024 there was 13% more airspace activity compared to the same month last year.
 'Near' are aircraft close enough to the airport that their radio calls are relevant to the airport operations.
 'Far' are those on the same radio frequency but far enough away to be not relevant.
 'Day' / 'Night' refer to Morning / Evening Civil Twilight calculated each day at the Lat/Long of the airport.



Local Airspace activity in Same Month Last Year



Help with Interpretation of information: Go to 'www.aimm.aero' and 'Webinars', to book a place in the next 'Management Insights' webinar for tips on how to extract maximum benefit from the information above. There are also 'Basic Airport Supervision' webinars for new Airport Supervisors.