

AGENDA

Motueka Aerodrome Advisory Group

Wednesday 13 March 2024 – 12:30pm – 2:30pm

Motueka Library

1. Opening, Welcome

2. Apologies

That the apologies be received by the Motueka Aerodrome Advisory Group.

Moved:

Second:

3. That the minutes of the Motueka Aerodrome Advisory Group meeting held on Wednesday 11 October 2023, be confirmed as a true and correct record of the meeting.

Moved:

Second:

4. Action items from the minutes of the previous meeting

- None

5. Managers' Report and Health & Safety and Financials

5.1 Managers Update

5.2 Health & Safety

5.3 Noise

5.4 Financials

6. AIMM's Reports

That the Motueka Aerodrome Advisory Group receives the Motueka Aerodrome Advisory Group Manager's Report, Financials and AIMMs Reports.

Moved:

Second:

7. General Business

8. Closing Karakia

Meeting closed at:

Motueka Aerodrome Advisory Group Confidential Minutes

Tasman District Council

Date and Time: Wednesday, 11 October 2023

Venue: Motueka Aero Club

Present: Councillor Dowler (Chair)
Cr Trindi Walker, Greg Wood, Stuart Bean, Mark Stagg, Ian Palmer, Mark Lasenby, David Armstrong.

- 1. That the minutes from the 12 July 2023 Confidential meeting be accepted as a true and correct record.**

Moved: Stuart Bean **Seconded:** Ian Palmer
CARRIED

- 2. AIMM reports for July, August, September 2023**

The advisory group discussed the AIMMs reports. A question was raised on how you can tell if the aircraft are landing on the grass or sealed runway. It was responded that AIMMs software can tell you that information.

- 3. Resumption of the Open session.**

Moved: Mark Stagg **Seconded:** Mark Lasenby

Closing Karakia Nick Chin.

The meeting closed at 1:34pm

Next meeting: – March 2024

Motueka Aerodrome Advisory Group Minutes

Tasman District Council

Date and Time: Wednesday, 11 October 2023

Venue: Motueka Aero Club

Present: Councillor Dowler (Chair)
Cr Trindi Walker, Greg Wood, Stuart Bean, Mark Stagg, Ian Palmer, Mark Lasenby, David Armstrong.

Meeting started at 12:29pm

In attendance: Nick Chin (Tasman District Council Aerodrome Operator) and Kathy Ktori (Scribe)

1. Minutes of the last meeting

That the minutes of the Motueka Aerodrome Advisory meeting held on 12 July 2023, be confirmed as a true and correct record of the meeting.

Moved: Mark Lasenby **Seconded:** Stuart Bean

Nick discussed the upcoming revised development plan for the aerodrome and mentioned that Stephen is preparing an information pack for public wanting to build a hanger onsite. This will be posted online once completed.

Discussion was had on re-sealing the runway by spring next year and it was questioned if there were reserve funds set aside for this. Nick responded that there was around \$250,000 for this. It was questioned if the whole runway would be sealed including the concrete pads.

Nick mentioned that the concrete pad was not part of the runway and this was put in by the drag association. There was concern raised over the re-sealing creating a lip between the concrete pad and runway when completed. Nick will make sure it is seamless.

A suggestion that Network Tasman could run their power cable down the centre of the runway rather than going around it as currently intended.

There was a discussion around the potential of taking power cables underground around the runway, this possibly could also future proof the runway, if it ever went to operating at night, allowing easy installation of lights.

Nick discussed that legal and consultancy expenses are causing us to be in the red with finances.

Nick to raise NZ Post agreement at next Enterprise meeting.

Nick mentioned that there will be a consultant coming to audit the H & S procedures.

Councillor Dowler mentioned that drag racing will be moved to a new piece of land that is being developed.

There was discussion on LGOIMA requests and if Council charges the requester for these requests of information. Mr Chin explained that if the information takes up staff time to collate, it can be charged out to the requester.

The placement / location of the new hanger was discussed. Nick will organize a site development plan that will be presented at the next meeting to be reviewed before anything is approved.

That the Committee receive the Motueka Aerodrome Advisory Group Managers' October Report.

Moved: Greg Wood **Seconded:** Ian Palmer

2. Procedural motion to exclude the public:

Reason for passing this resolution in relation to each matter	Particular interest(s) protected (where applicable)	Ground(s) under section 48(1) for the passing of this resolution
The public conduct of the part of the meeting would be likely to result in the disclosure of information for which good reason for withholding exists under section 7.	(s7(2)(a)) (s7(2)(h)) - The withholding of the information is necessary to protect the privacy of natural persons, including that of a deceased person; AND The withholding of the information is necessary to enable the local authority to carry out, without prejudice or disadvantage, commercial activities. s7(2)(i) - The withholding of the information is necessary to enable the local authority to carry on, without prejudice or disadvantage, negotiations (including commercial and industrial negotiations).	s48(1)(a) The public conduct of the part of the meeting would be likely to result in the disclosure of information for which good reason for withholding exists under section 7.

Moved: Mark Stagg **Seconded:** Mark Lansenby

CARRIED

Closing Karakia Nick Chin.

The meeting closed at 1:24pm

Next meeting: – March 2024

Unconfirmed

Managers' Report Motueka Aerodrome Advisory Group – March 2024

5.1 Managers Update

- 5.1.1 The New Zealand Meteorological Society have been approached and a meeting held over the future of their lightning monitor at Motueka Aerodrome. We have proposed three potential locations and these will be tested in the next two months with specialist equipment from the United States around site interference. Still awaiting an update.
- 5.1.2 Proposed changes to the AIP have been tabled with users and this was discussed at the MAOS meeting. An agreed updated AIP is planned to be submitted for the next release from Aeropath.
- 5.1.3 MOU has been circulated to users and some have been signed but still pending all signed agreements. This has been asked to be given priority. Due to staff changes reconciliation of user still pending is required.
- 5.1.4 NDRA – drag meeting in early 2024 have created some tension for users. A drag racing accident has left a gouge in the runway. Staff have engaged a roading contractor to correct/remedy this. The relationship between aviation and NDRA needs to be managed in context to the above.
- 5.1.5 NZ Post – TDC has lodged the resource consent for the NZ post building and has responded to an RFI regarding consent. We await to see if the consent is granted or if it has limited notification to local residents.
- 5.1.6 Green Lane – Staff have sent a second letter to the CEO of TDC around the delay in obtaining a hearing date regarding the resource consent at this property.
- 5.1.7 Compliance – Simon Lockie has provided verbal feedback on his full compliance check of the Aerodrome. The feedback was very positive and indicated that the aerodrome was well run. A full report will be available shortly for tabled for reading.

5.2 Health & Safety

- 5.2.1 Monthly inspection reports have been received by NAC staff. These have been passed to Tasman Bay Contracting. They have been asked to rectify signage and gate issues. Grass mowing and spraying has been completed.
- 5.2.2 Post strength report – Downer have been asked to supply a plan to efficiently manage the seal and provide a recommended timeline for replacement.
- 5.2.3 Downer have been instructed to repair the Drag racing gouge in the runway and sealing cracks between asphalt and concrete joins on runway. Once runway has been repaired line markings will be reinstated due to residual rubber from drag racing covering these.

5.3 Noise

- 5.3.1 Staff have insured that we are compliant with maintaining a noise complaints register and discussing noise at regular meetings. However, it is noted that noise complaints regarding the sky diving plane are increasing and have elected members are aware of these and are asking for updates.
- 5.3.2 Cr. Barry Dowler and Stephen Batt to meeting with Inflight operators to discuss what, if anything, can be done to reduce noise.
- 5.3.3 Staff and Cr. Dowler will attempt to meet with the Clifton's so that both parties better understand each other's position.
- 5.3.4 CEO of TDC is to write to the Clifton's regarding noise complaints.

5.4 Financials

- 5.4.1 Please see financial results as at January 2024 in the table below.

Motueka Aerodrome					
Jan 2024	Actual	Budget	Variance	Variance %	YTD % Budget
Revenue	\$109,470	\$87,550	\$21,920	25%	66%
Costs	\$101,792	\$86,771	(\$15,021)	-17%	85%

Motueka Aerodrome Runway Bearing Strength

CLIENT

Tasman District Council

Report prepared by:

Joe Borne, Senior Data Collection Technician

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1. Introduction

Road Science was approached by the Tasman Alliance to determine the bearing strength of the Motueka Aerodrome sealed runway on behalf of the Tasman District Council. Motueka Aerodrome is 729m in length and 11 metres wide. It does not currently service any commercial passenger flights and is used exclusively by private operators and businesses. It’s current published operational data gives a runway strength of “ESWL 1020”.

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 Motueka runway is 1020kg. This means that currently, only aircraft with an ESWL of 1020kg 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 Motueka runway. A load of 40kN was chosen for testing as, upon trial, this gave central deflections of roughly 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	35
Well compacted, medium sized gravel	85
Moderately compacted, coarse gravel	150
Soft clay subgrade	-

Aircraft traffic data supplied by the council was as follows:

Aircraft Weight Summary

Weight	Movements
Up to 600kg	41
600~2900kg	1752
2900~5700kg	2
Unspecified	7

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”. We conservatively assumed that the critical aircraft weighs 5700kg and has a single-single wheelbase design. The ESWL for such an aircraft would be 2565kg. Within the ELMOD software, a McDonnell Douglas DC-3, with an ESWL of 5143g is 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 5700kg aircraft by 12, we get 24 total movements per year. To account for worse case scenario, this was roughly doubled to 50 total movements per year.

Subgrade stiffness values were back-calculated for each of the 29 FWD test points. Calculated stiffness at 4 of the 29 test points was found to be high or medium, but was otherwise consistently low to very low. To account for worse case scenario, a subgrade stiffness of very low was assumed for ACN calculation.

Summary of key inputs:

- FWD testing performed at a load of 40KN
- Pavement thickness of 270mm
- Simulated critical aircraft ESWL = 5143kg
- Total critical aircraft movements = 50 per year
- Subgrade has very low stiffness

3. Results

The PCN value exceeds the ACN value at all 29 test points along Motueka Runway. Average PCN is 12.1, whereas ACN is 9.2. Therefore, under the simulated conditions of an aircraft with an ESWL of 5143kg carrying out 50 movements per year, no pavement damage would be expected.

4. Conclusion

The current published ESWL value of 1020kg 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

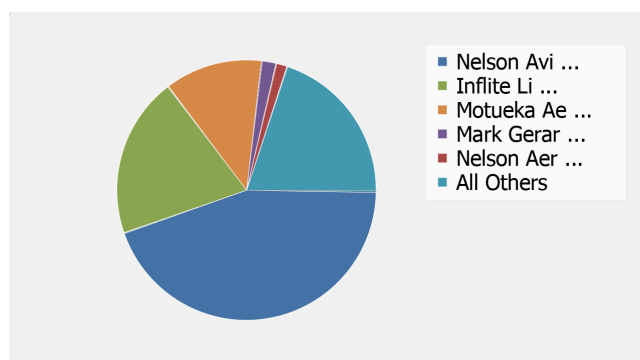
Test Point	PCN	ACN
1	11.6	9.2
2	12.6	9.2
3	14.3	9.2
4	11.6	9.2
5	13.9	9.2
6	16.6	9.2
7	12.8	9.2
8	11.3	9.2
9	12.5	9.2
10	16.5	9.2
11	12.5	9.2
12	15.7	9.2
13	15.4	9.2
14	10.6	9.2
15	18.9	9.2
16	10.9	9.2
17	15.9	9.2
18	24.3	9.2
19	9.5	9.2
20	12.3	9.2
21	46.3	9.2
22	14.8	9.2
23	15.2	9.2
24	12.7	9.2
25	12.2	9.2
26	15.3	9.2
27	13.2	9.2
28	13.6	9.2
29	10.4	9.2

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

AIRPORT MOVEMENTS. Most Active 10 aircraft

Movements	Aircraft	Operator
352	ZK-MCK Pilatus PC-6/B2-H4	Inflite Limited
197	ZK-NAG Cessna A152	Nelson Aviation College Ltd
193	ZK-NAL Cessna 152	Nelson Aviation College Ltd
161	ZK-NAI Cessna 152	Nelson Aviation College Ltd
110	ZK-EFF Cessna 172N	Motueka Aero Club (Inc)
91	ZK-VBM Piper PA-38-112	Motueka Aero Club (Inc)
79	ZK-NAQ Cessna 152	Nelson Aviation College Ltd
64	ZK-NAS Cessna 172S	Nelson Aviation College Ltd
49	ZK-NAX Cessna 172S	Nelson Aviation College Ltd
49	ZK-NAK Cessna 152	Nelson Aviation College Ltd

Most Active 5 Operators



Operator	Movements	Revenue	\$/move	Retail Val
Nelson Aviation College Ltd	793	\$0	--	\$2520
Inflite Limited	354	\$1750	\$4.94	\$1750
Motueka Aero Club (Inc)	215	\$630	\$2.93	\$630
Mark Gerard Woodhouse	32	\$90	\$2.81	\$90
Nelson Aero Club (Inc)	24	\$70	\$2.92	\$70
All Other Operators	359	\$--	--	\$--
Total	1777	\$--	--	\$--

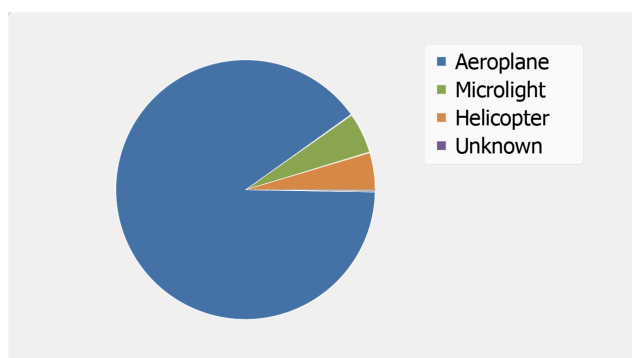
'Movements' is the total count of ALL movements, including Takeoff, Landing and Touch-and-Go.

'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.

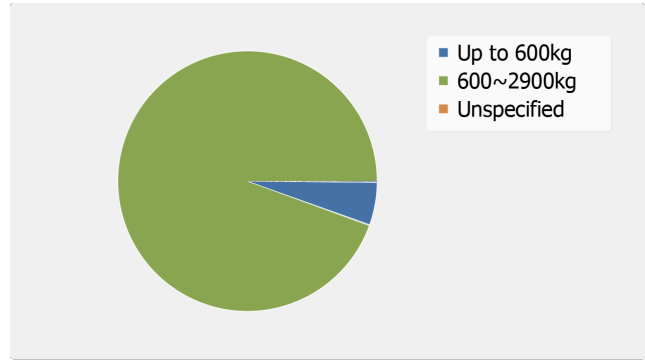
Aircraft Type Summary

Type	Movements
Aeroplane	1603
Microlight	89
Helicopter	84
Unknown	1



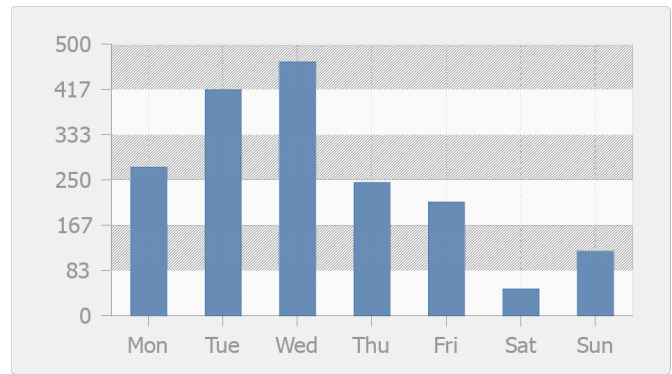
Aircraft Weight Summary

Weight	Movements
Up to 600kg	97
600~2900kg	1679
Unspecified	1

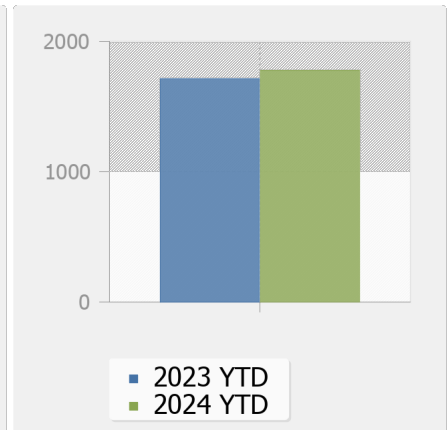
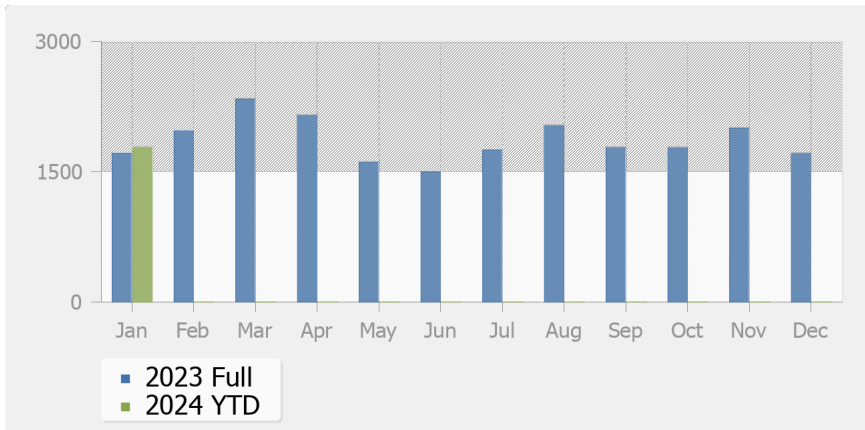


Movements: Days of Week

Weekday	Movements
Mon	273
Tue	416
Wed	467
Thu	245
Fri	209
Sat	49
Sun	118

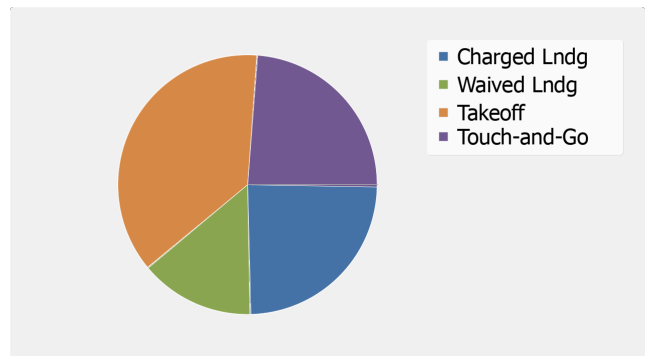


Movements: Months of Year



Charge Summary

Status	Movements
Charged Lndg	438
Waived Lndg	252
Takeoffs	659
Touch-and-Go	428



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.

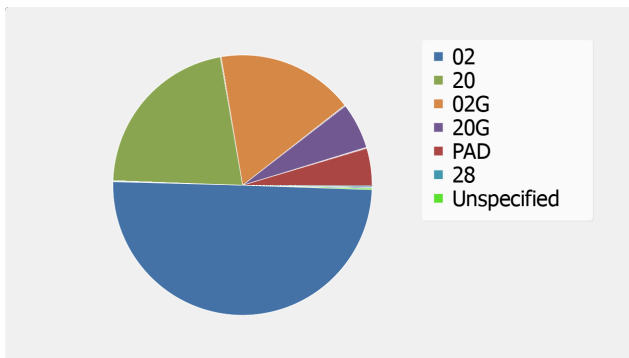
The number of Takeoffs and Landings are usually different due to chargeable Touch-and-Go being included as Landings, visiting aircraft that Landed but did not stop, abandoned Takeoffs, and similar situations.

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
02	896
20	386
02G	304
20G	103
PAD	84
28	1
Unspecified	3



ACTIVITY LEVEL: During January 2024, the airport had 1,777 movements**, an increase of 3% from 1,733 for the same month last year.

For the last 12 months, there were 22,656 movements, an increase of 6% from 21,461 for the same period in the previous year..

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: 94)*

COMPLIANCE REPORTING

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

1772 during the 'Day', which is set to start at 0700.

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

Civil Aviation: CAA Rule 139.505 requires Non-Certificated Aerodromes such as Motueka (NZMK) 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 NZMK remains in compliance.

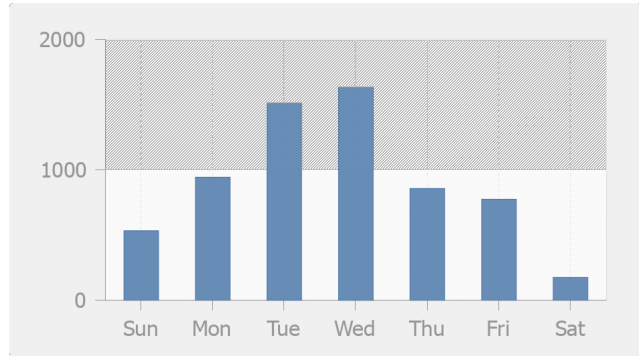
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LOCAL AIRSPACE Analysis for January (Aircraft using airspace, not necessarily landing.)

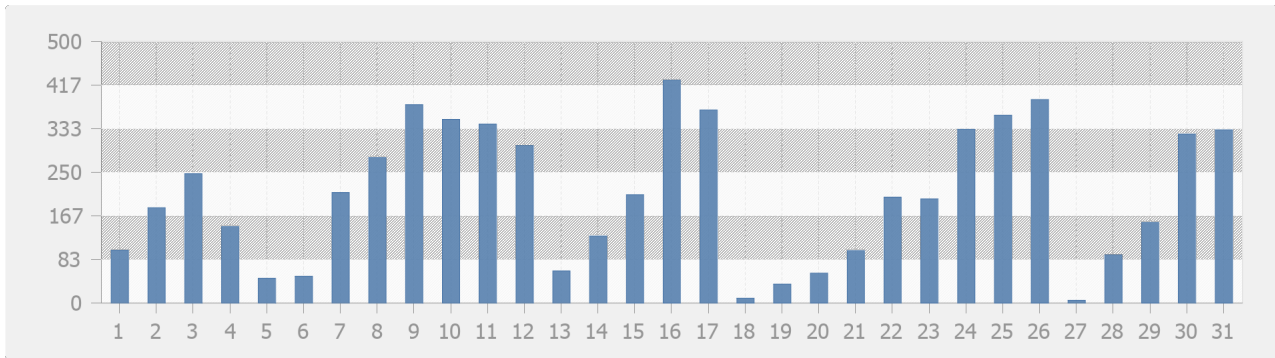
Summary

6415 radio calls received for the month.
 5 calls, on the quietest day, 27-Jan
 426 calls, on the busiest day, 16-Jan
 206 calls, daily average for January
 Wednesday is the busiest day of the week.

Days of Week

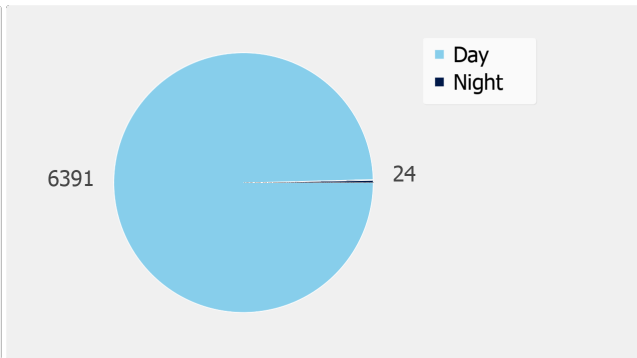
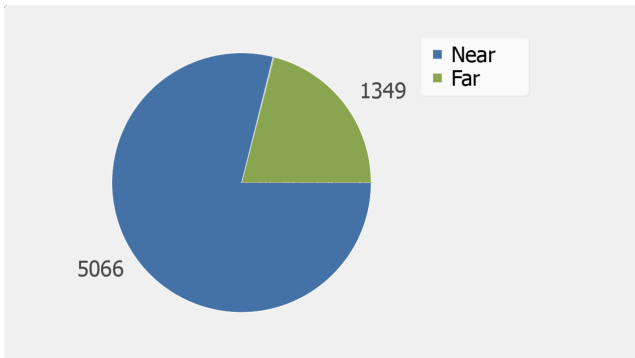


AIRSPACE activity, Days of Month

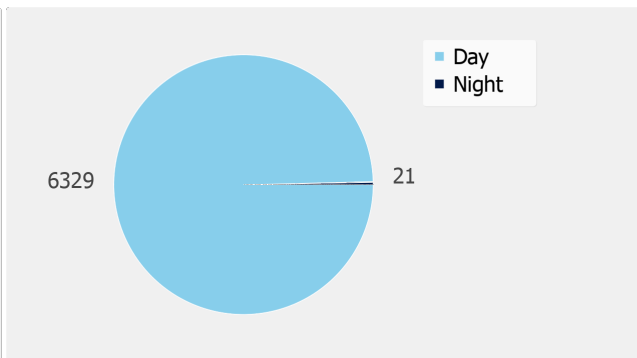
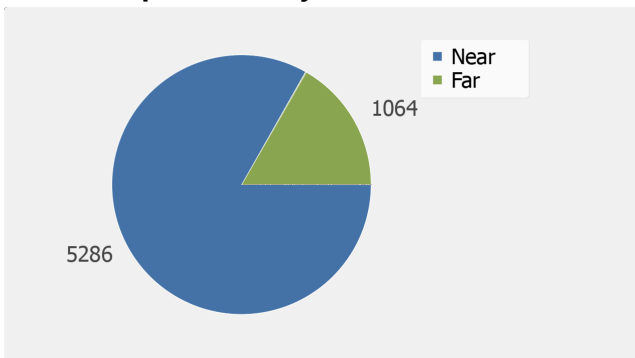


Classification of Local Airspace activity

During January 2024 there was 1% 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.