



Air Traffic Statistics Report

April 2023



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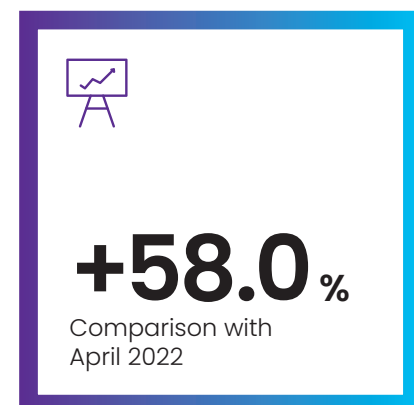
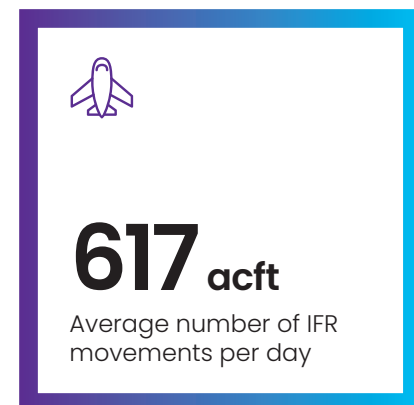
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1 Baku FIR Air Traffic Statistics Data (IFR movements)

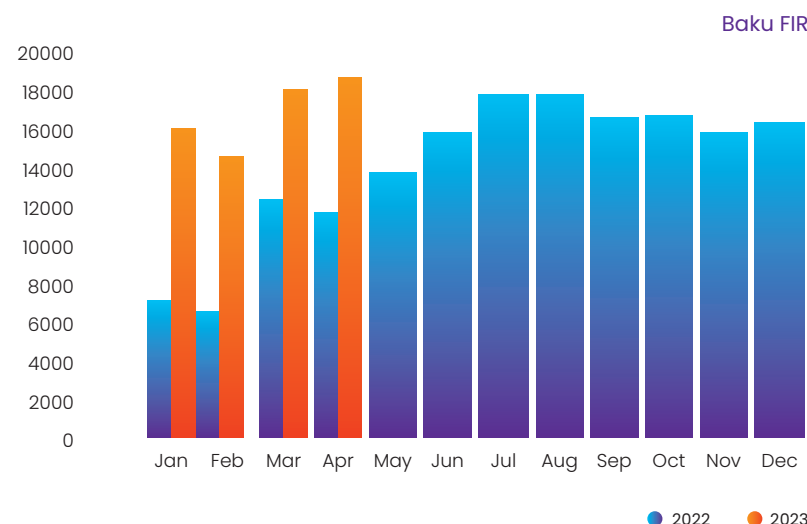
1.1 General Air Traffic Statistics Data



The number of IFR movements within Baku FIR recorded in April is **18509 ACFT**.

Average number of IFR movements per day is **617 ACFT** (Peak day, April 30, 2023 – **713 ACFT**; low day, April 03, 2023 – **542 ACFT**).

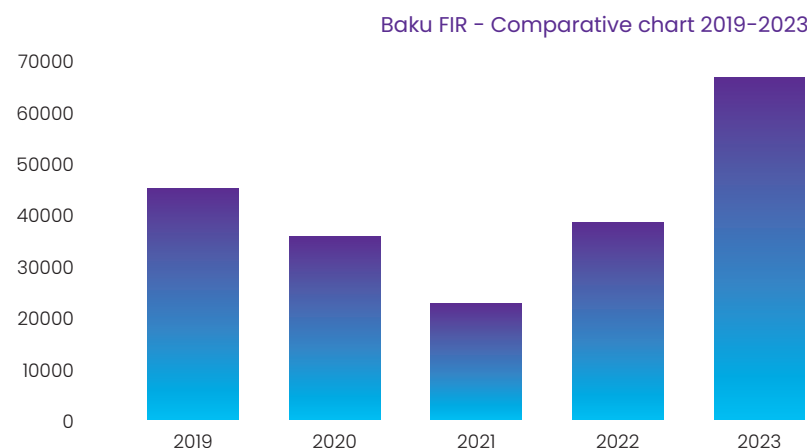
Comparison with April 2022 – **+58.0%**.



The number of IFR movements within Baku FIR recorded for four months 2023 is **67104 ACFT**.

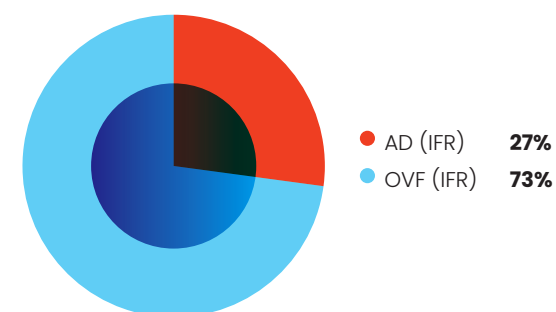
Average number of IFR movements per day is **560 ACFT**.

Comparison with the same period of 2022 – **+75.9%**.



1.2 Traffic Segments

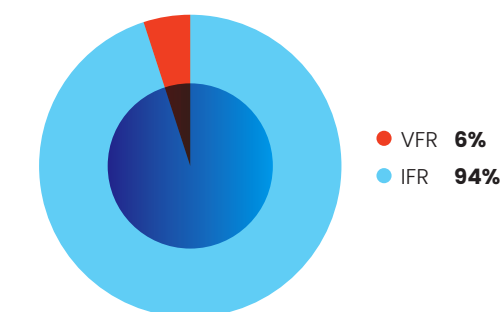
1.2.1 The number of IFR movements within Baku FIR recorded in April is **18509 ACFT**, where **13487 ACFT** are overflight traffic and **5022 ACFT** are aerodrome movements.



1.2.2 Total number of movements within Baku FIR recorded in April is **19679 ACFT**, where **18509 ACFT** are IFR movements and **1170 ACFT** are VFR movements.

Average number of movements per day is **656 ACFT**.

Comparison with April 2022 – **+52.1%**.

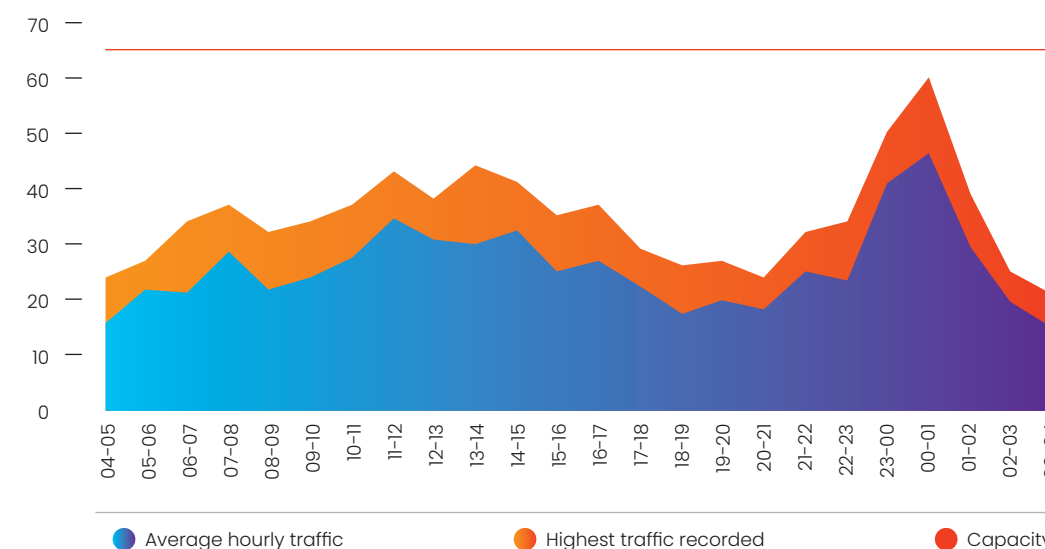


1.3 Capacity vs traffic demand

Highest traffic recorded **53 ACFT** (April 25, 2023 00:00-01:00)

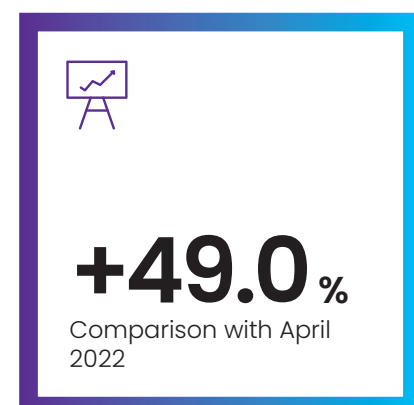
Peak hour (April average data):	00:00-01:00	46 ACFT
	23:00-00:00	41 ACFT
	11:00-12:00	35 ACFT
	14:00-15:00	32 ACFT
	12:00-13:00	31 ACFT

The following picture reflects the traffic demand by hour vs capacity of Baku FIR.



2 Aerodrome Movements Statistics Data

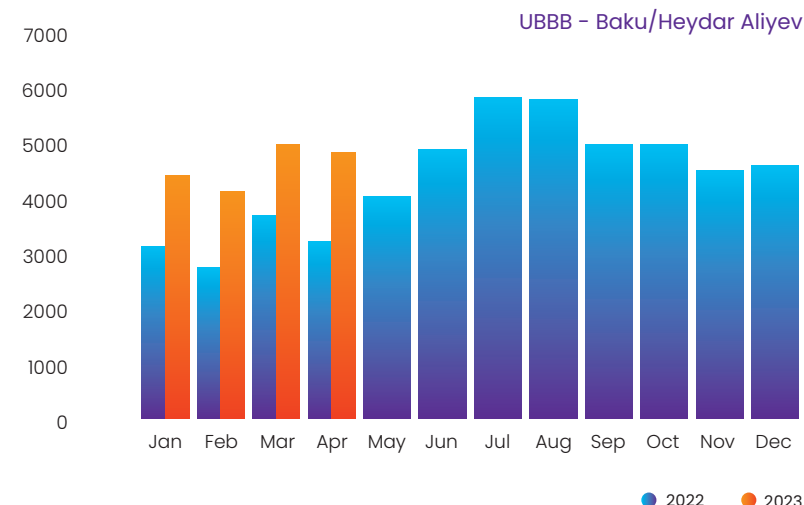
2.1 Heydar Aliyev International airport



Total number of movements at Baku/Heydar Intl' Aliyev airport recorded in April is **4808 ACFT**.

Average number of movements per day is **161 ACFT** (Peak day, April 30, 2023 – **214 ACFT**; low day, April 17, 2023 – **134 ACFT**).

Comparison with April 2022 – **+49.0%**.

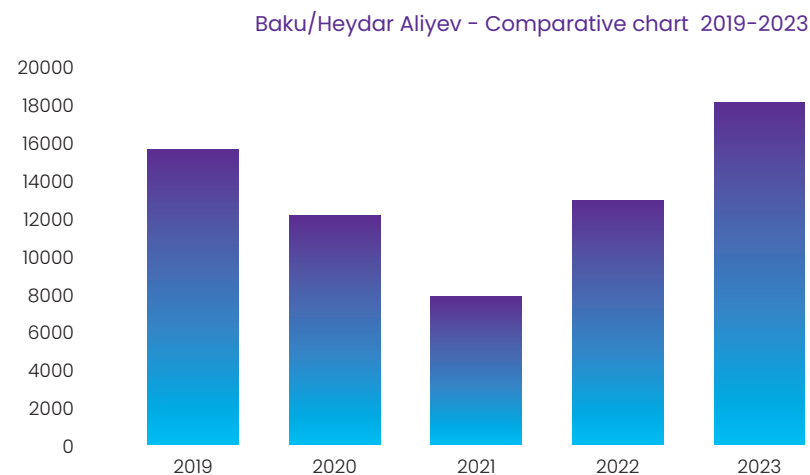


2.1.2 Comparative chart 2019 – 2023

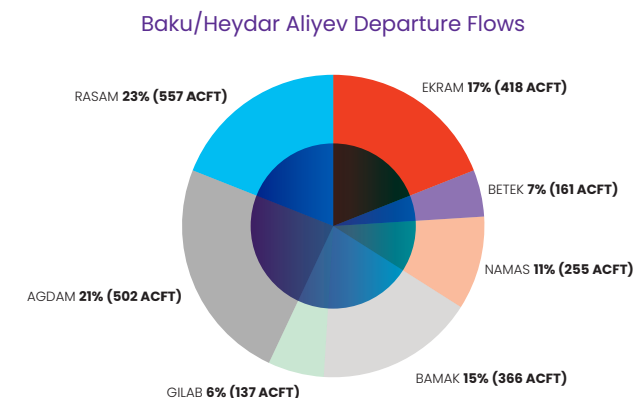
The number of movements at Baku/Heydar Intl' Aliyev airport recorded for four months 2023 is **18371 ACFT**.

Average number of movements per day is **154 ACFT**.

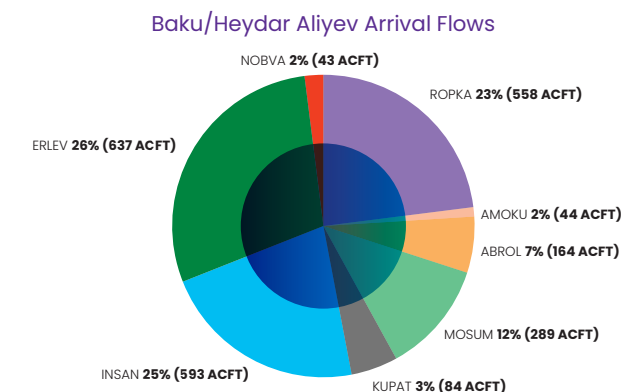
Comparison with the same period of 2022 – **+43.1%**.



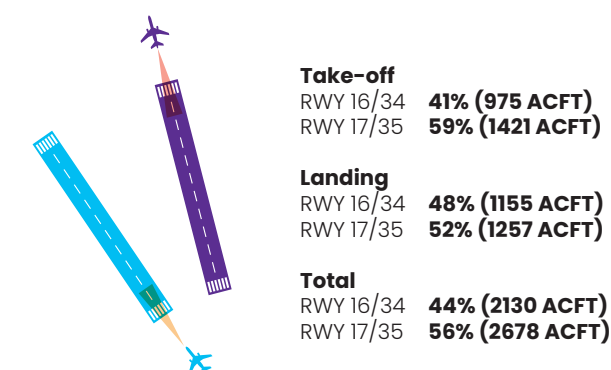
2.1.3 Air traffic flows – Load of SIDs.



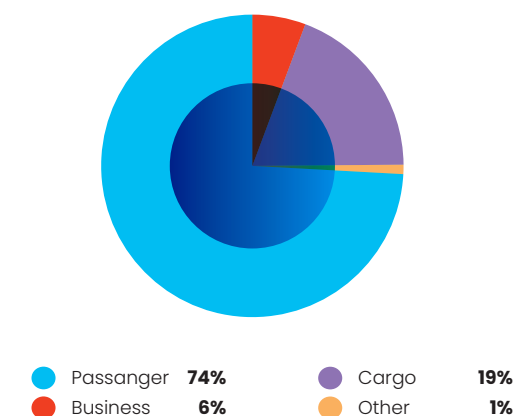
2.1.4 Air traffic flows – Load of STARs



2.1.5 Use of RWY 16/34 and 17/35

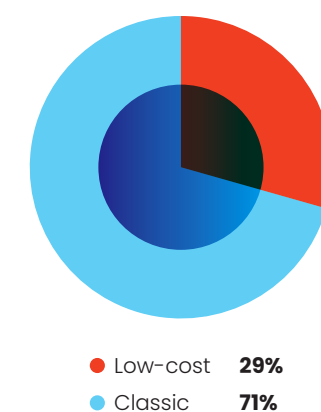


2.1.6 Types of flights

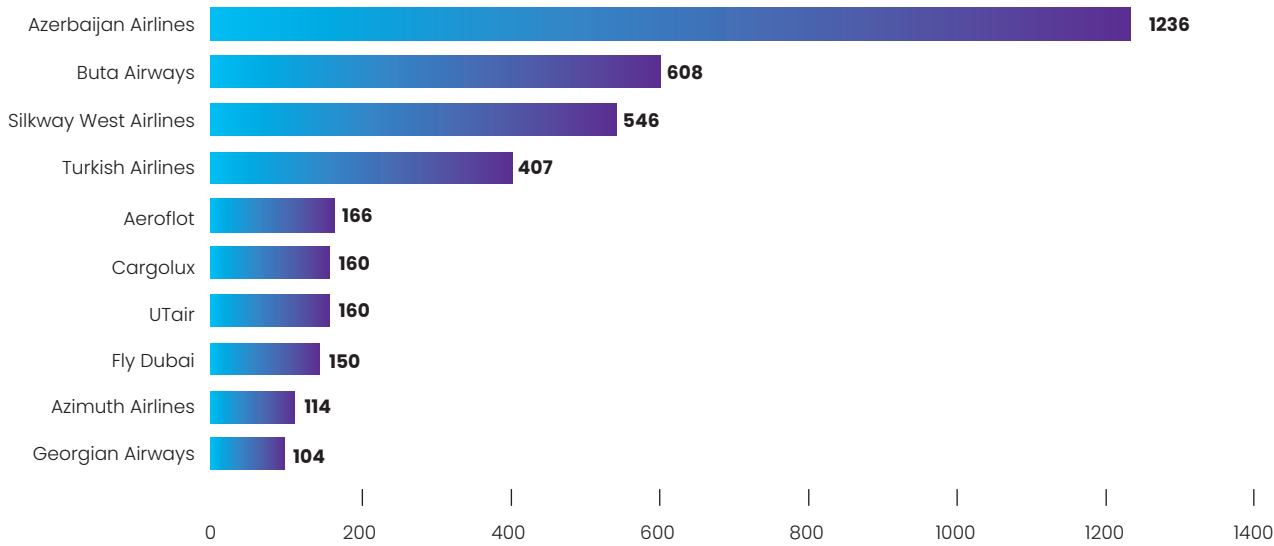


2.1.7 Passenger flights (Budget/low-cost vs classic)

Budget/low-cost airlines: **Buta Airways, Fly Dubai, Air Arabia, Air Arabia Abu Dhabi, Jazeera Airways, Pegasus Airlines, Flynas, Fly Arystan, WizzAir and WizzAir Abu Dhabi.**

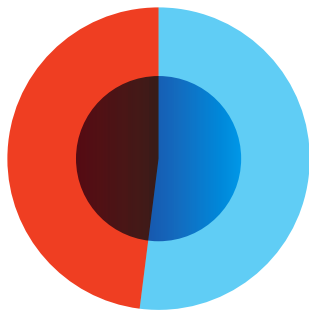


2.1.8 Aircraft Operators – Top 10 Airspace Users



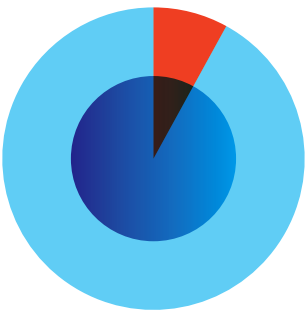
Note: This chart shows the number of flights in April 2023.

2.1.9 Aircraft Operators – Airlines of Azerbaijan vs international airlines



● International Airlines **47%**
● Airlines of Azerbaijan **53%**

2.1.10 Traffic segments – Domestic vs International



● Domestic flights **7%**
● International flights **93%**

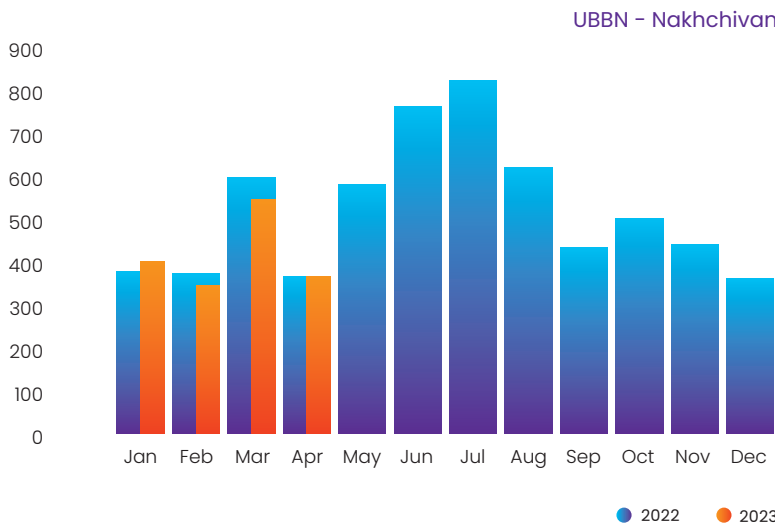
2.2 Nakhchivan International airport



Total number of movements at Nakhchivan International airport recorded in April is **360 ACFT**.

Average number of movements per day is **12 ACFT**.

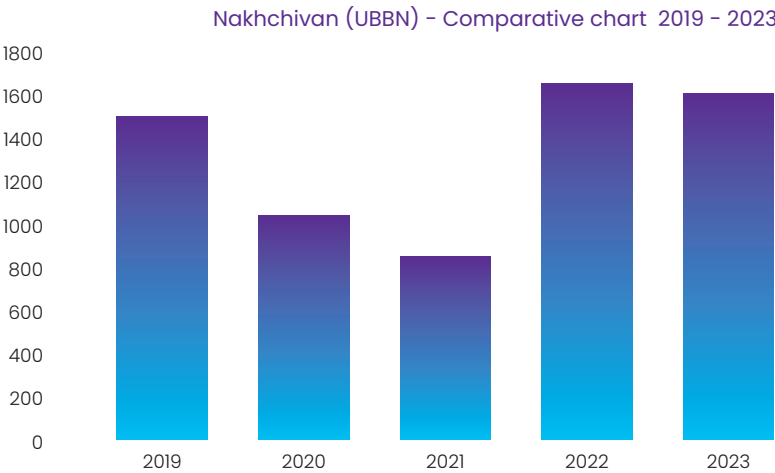
Comparison with April 2022 – **no change**.



The number of movements at Nakhchivan International airport recorded for four months 2023 is **1264 ACFT**.

Average number of movements per day is **14 ACFT**.

Comparison with the same period of 2022 – **-3.6%**.



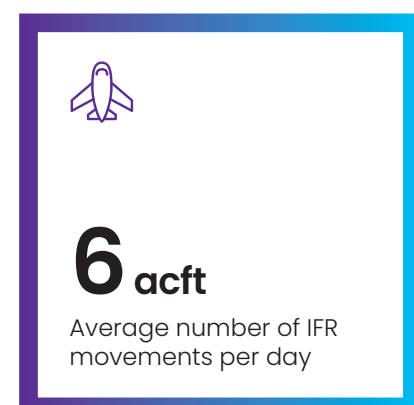
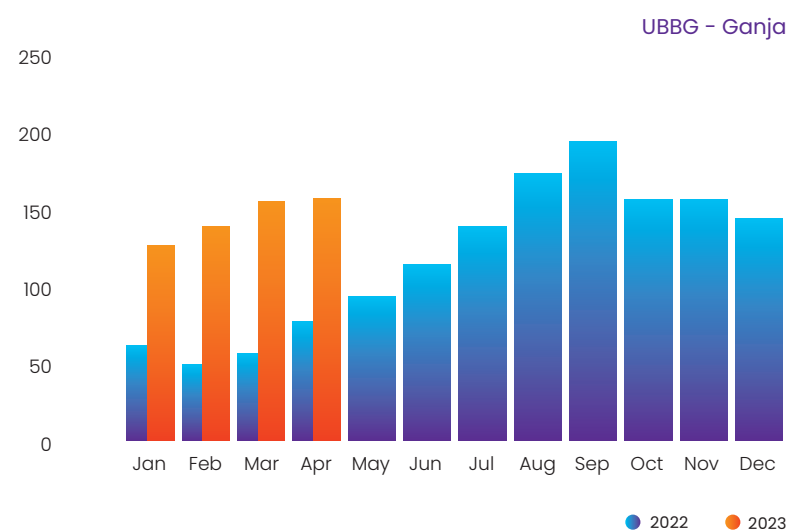
2.3 Ganja International airport



Total number of movements at Ganja International airport recorded in April is **163 ACFT.**

Average number of movements per day is **6 ACFT.**

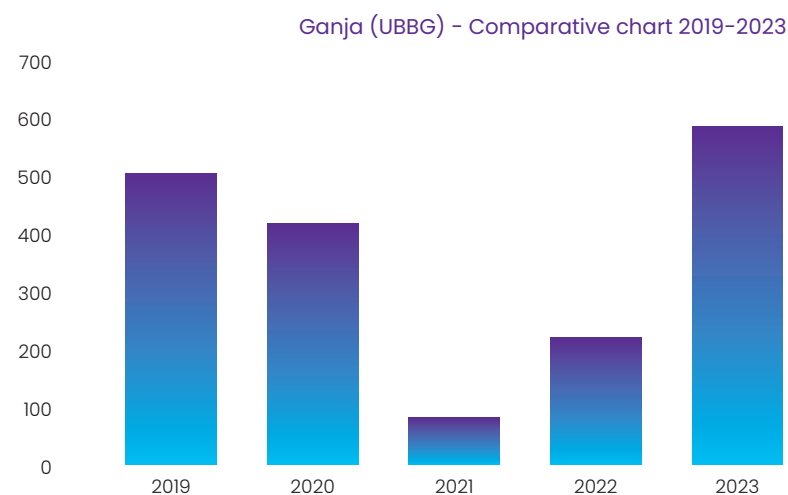
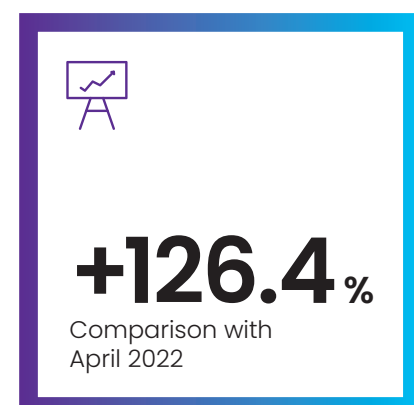
Comparison with April 2022 – **+126.4%.**



The number of movements at Ganja International airport recorded for four months 2023 is **593 ACFT.**

Average number of movements per day is **5 ACFT.**

Comparison with the same period of 2022 – **+154.5%.**



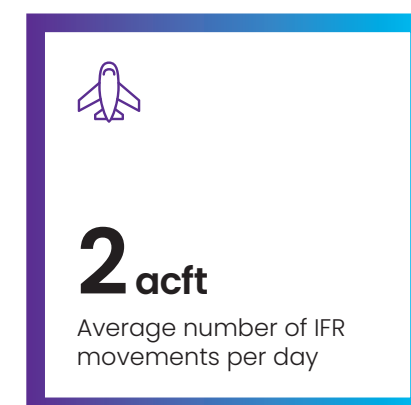
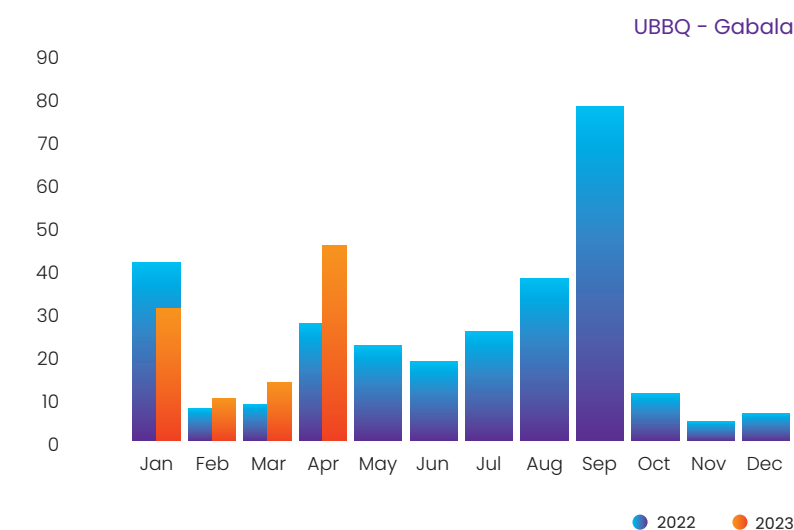
2.4 Gabala International airport



Total number of movements at Gabala International airport recorded in April is **44 ACFT.**

Average number of movements per day is **2 ACFT.**

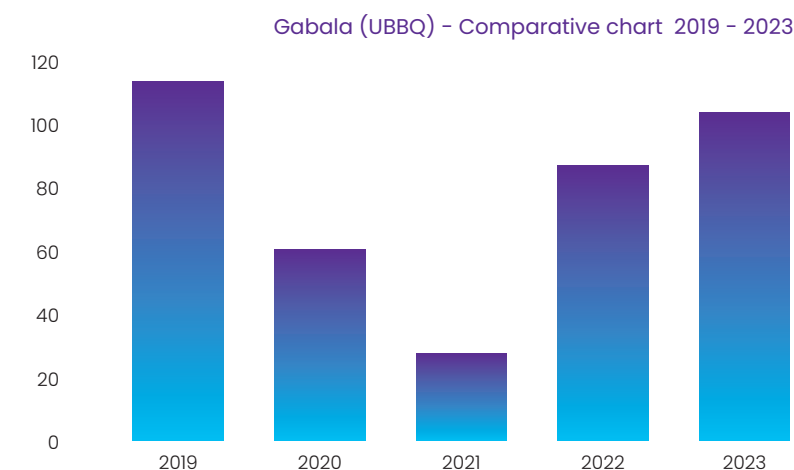
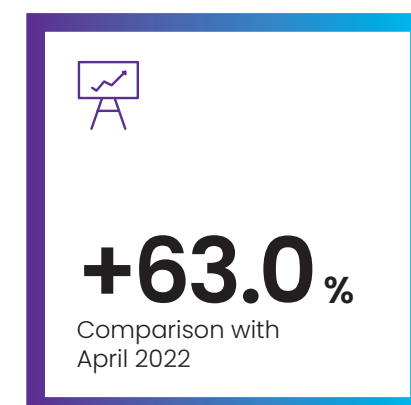
Comparison with April 2022 – **+63.0%.**



The number of movements at Gabala International airport recorded for four months 2023 is **102 ACFT.**

Average number of movements per day is **0.9.**

Comparison with the same period of 2022 – **+17.2%.**



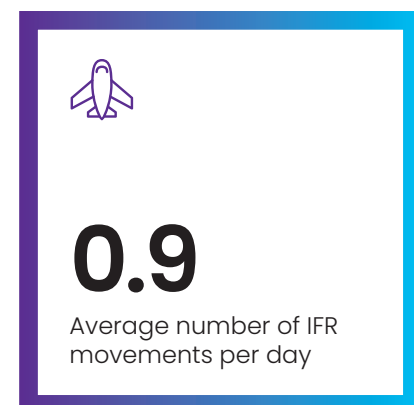
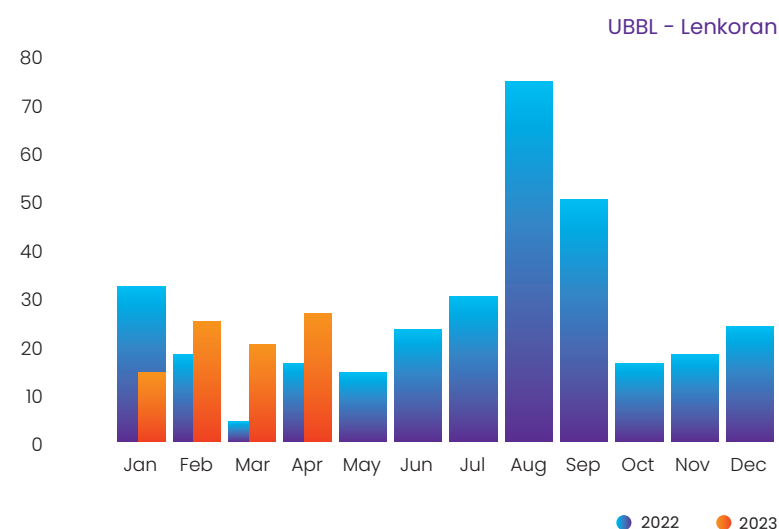
2.5 Lenkoran International airport



Total number of movements at Lenkoran International airport recorded in April is **26 ACFT**.

Average number of movements per day is **0.9**.

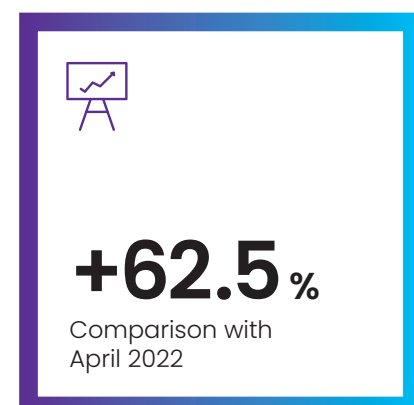
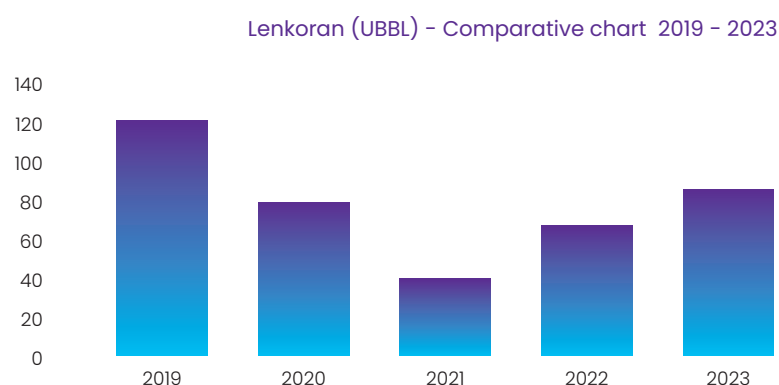
Comparison with April 2022 – **+62.5%**.



The number of movements at Lenkoran International airport recorded for four months 2023 is **84 ACFT**.

Average number of movements per day is **0.7**.

Comparison with the same period of 2022 – **+20.0%**.



2.6 Fuzuli International airport.

Total number of movements – **4 ACFT**

Average number of movements per day – **0.1**

2.7 Zagatala International airport.

Total number of movements – **8 ACFT**

Average number of movements per day – **0.3**

2.8 Zangilan International airport.

No movements were recorded

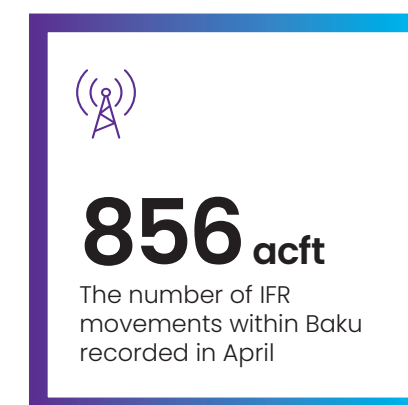
2.9Yevlakh airport.

Total number of movements – **4 ACFT**

Average number of movements per day – **0.1**

3 VFR Movements Statistics data

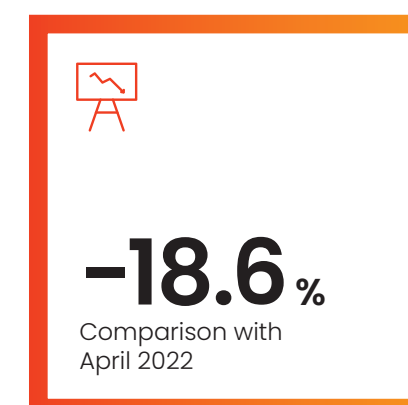
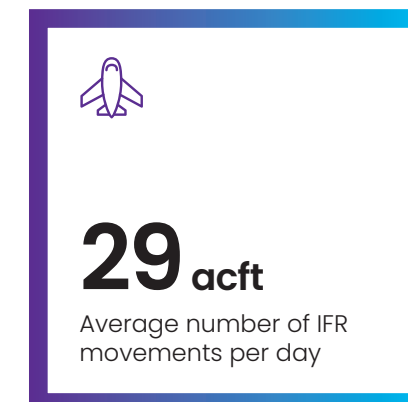
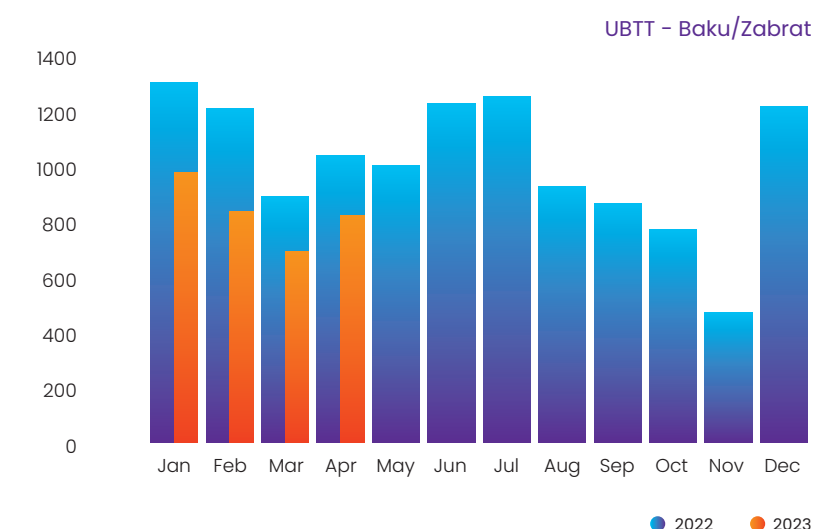
3.1 Baku/Zabrat airport



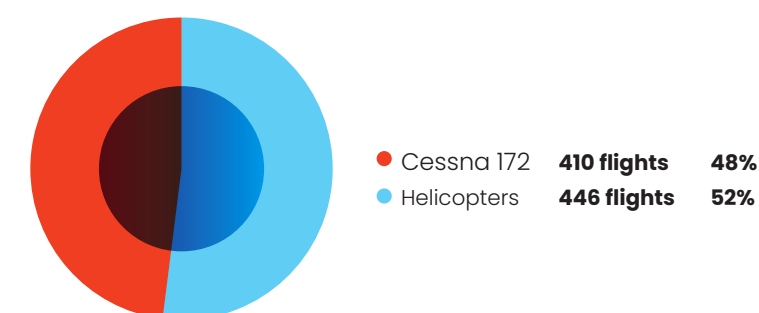
Total number of VFR movements at Baku/Zabrat airport recorded in April is **856 ACFT**.

Average number of movements per day is **29 ACFT**

Comparison with April 2022 – **-18.6%**.



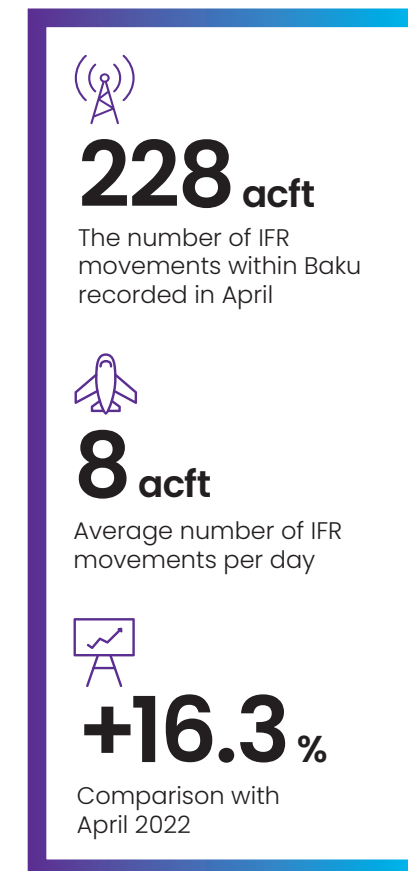
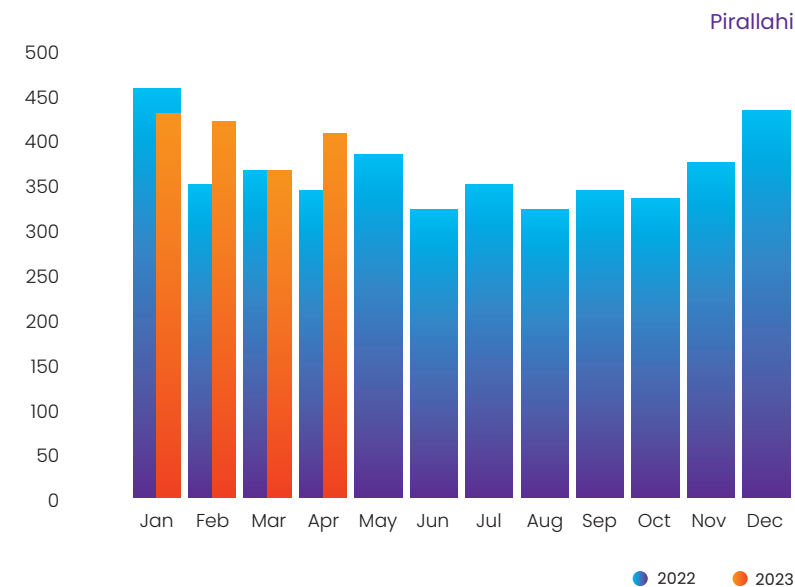
The Baku/Zabrat aerodrome is the base of training flights for student pilots of the National Aviation Academy. The student pilot training program includes en-route flight training and training maneuvers (take-off, landing, go-around) on the Cessna-172 aircraft





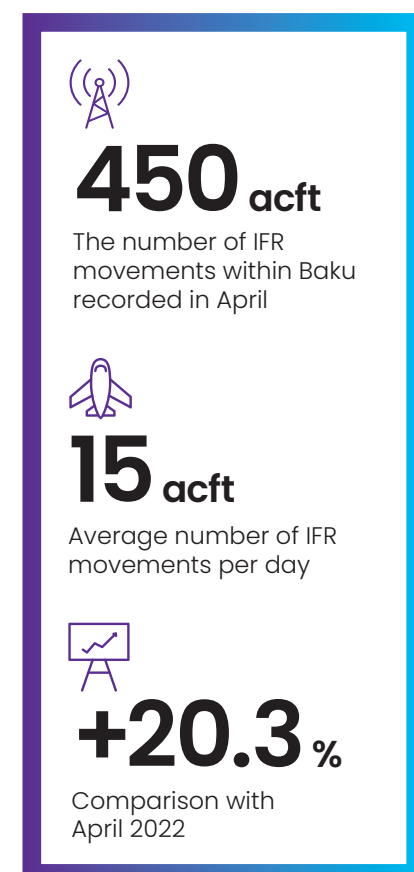
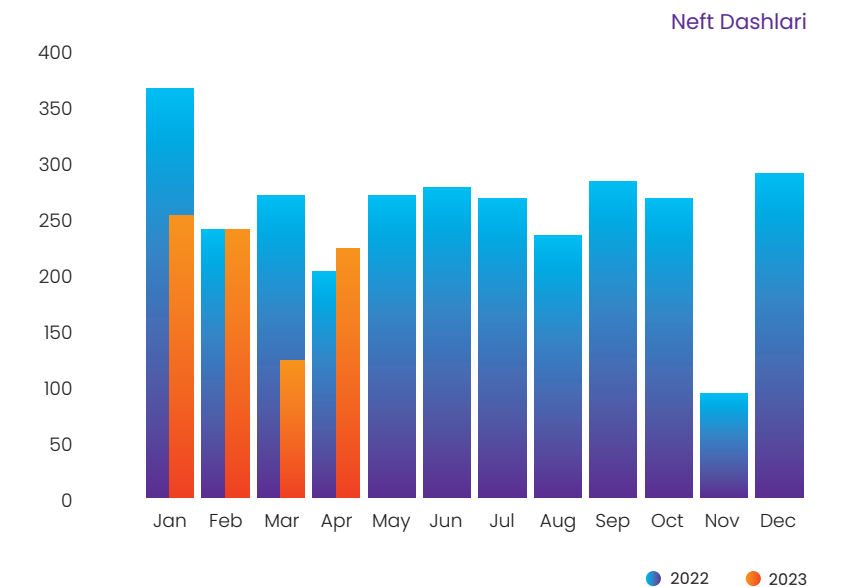
3.2 Pirallahi heliport

Total number of VFR movements at Pirallahi heliport recorded in April is **418 ACFT**.
Average number of movements per day is **14 ACFT**
Comparison with April 2022 – **+20.8%**.



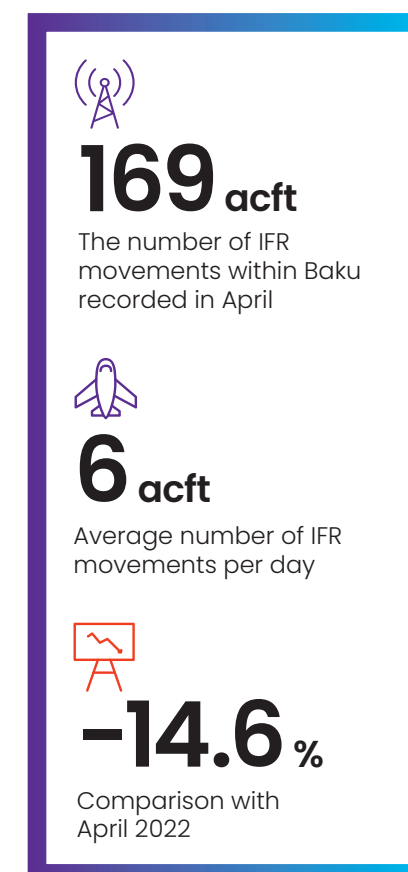
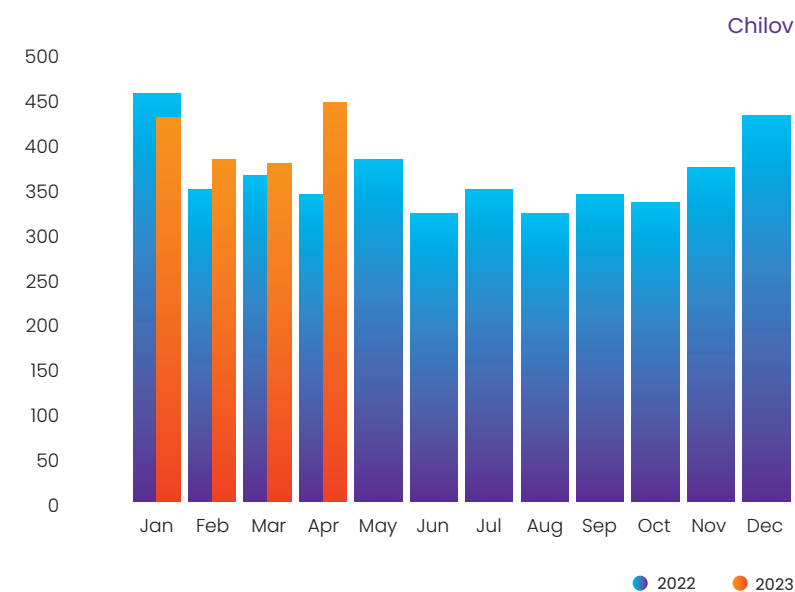
3.4 Neft Dashlari heliport

Total number of VFR movements at Neft Dashlari heliport recorded in April is **228 ACFT**.
Average number of movements per day is **8 ACFT**
Comparison with April 2022 – **+16.3%**.



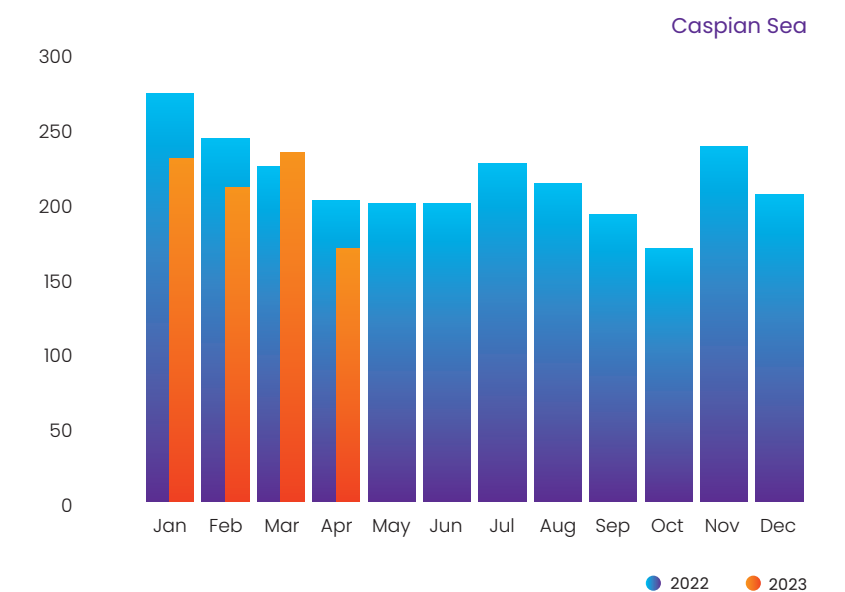
3.3 Chilov heliport

Total number of VFR movements at Chilov heliport recorded in April is **450 ACFT**.
Average number of movements per day is **15 ACFT**
Comparison with April 2022 – **+20.3%**.



3.5 Helipads on the ships and offshore drilling rigs in the Caspian Sea

Total number of VFR movements at helipads on the ships and offshore drilling rigs in the Caspian Sea recorded in April is **169 ACFT**.
Average number of movements per day is **6 ACFT**
Comparison with April 2022 – **-14.6%**.

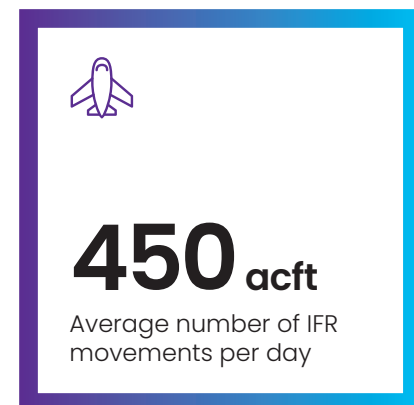
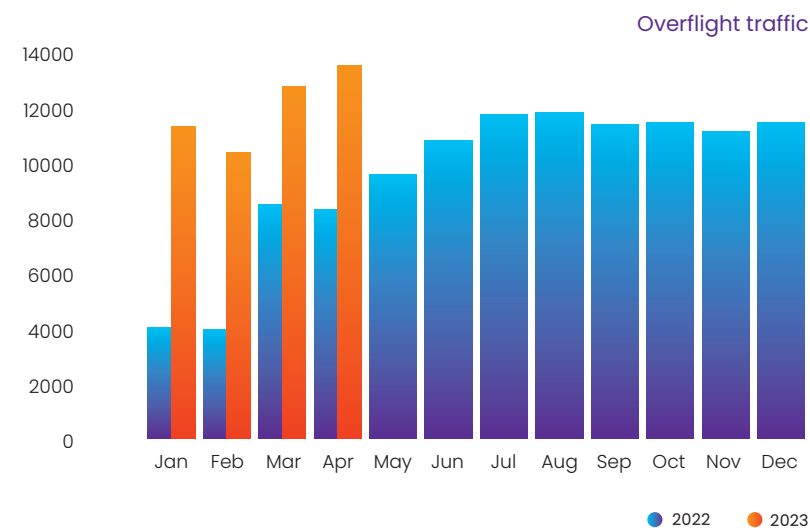


4 Overflight Air Traffic Statistics Data

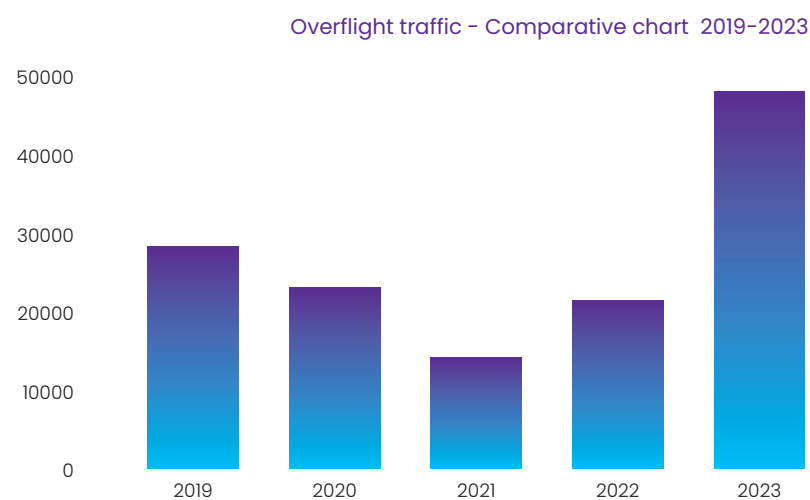
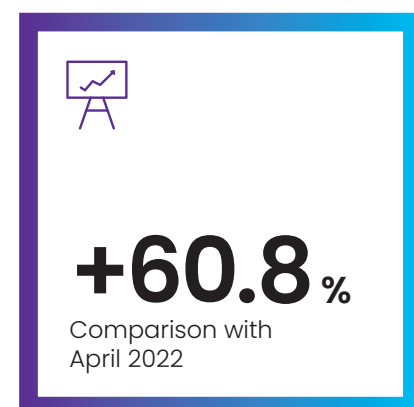
4.1 General Air Traffic Statistics Data



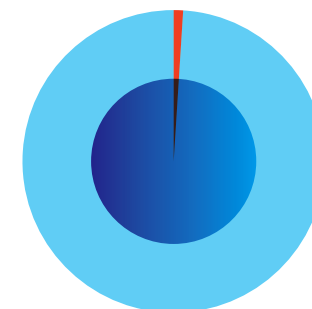
The number of overflights via Baku FIR recorded in April is **13487 ACFT**.
Average number of overflights per day is **450 ACFT** (Peak day, April 28, 2023 – **521 ACFT**; low day, April 03, 2023 – **397 ACFT**).
Comparison with April 2022 – **+60.8%**.



The number of overflights via Baku FIR recorded for four months 2023 is **48036 ACFT**.
Average number of overflights per day is **401 ACFT**.
Comparison with the same period of 2022 – **+92.7%**.

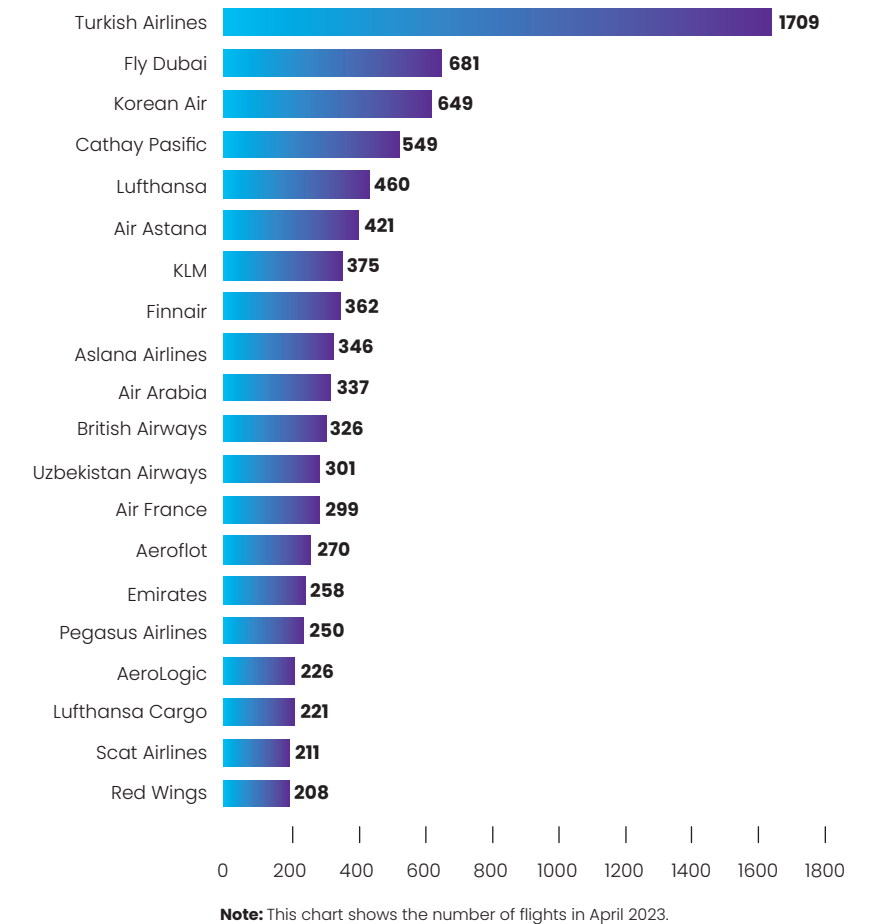


4.2 Traffic segments

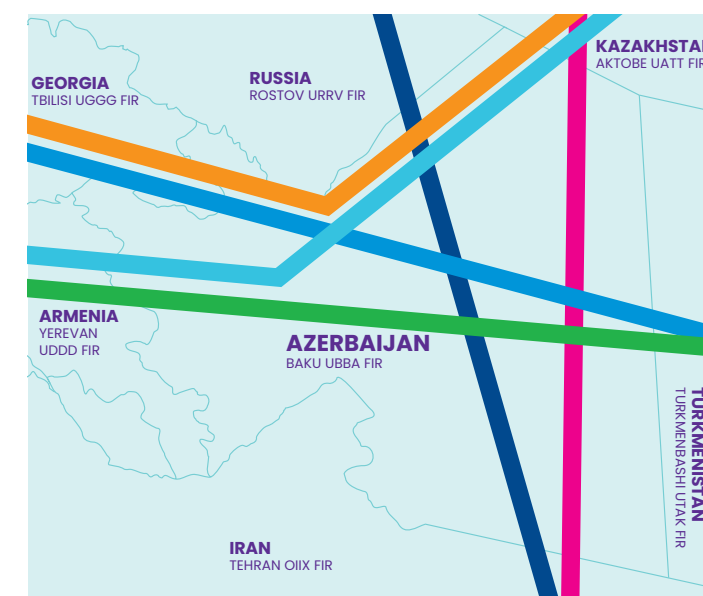


● Civil **13388 ACFT**
● NATO **27 ACFT**
● Russian Air Force **72 ACFT**

4.3 Aircraft Operators – Top 20 Airspace Users



4.4 Air traffic flows – main overflight flows.



Georgia – Turkmenistan and v.v.	32% (4351 ACFT)
Georgia – Kazakhstan and v.v.	26% (3570 ACFT)
Iran – Russia and v.v.	5% (655 ACFT)
Turkmenistan – Armenia and v.v.	6% (765 ACFT)
Kazakhstan – Armenia and v.v.	8% (1053 ACFT)
Iran – Kazakhstan and v.v.	14% (1864 ACFT)
Other directions (Total)	9% (1229 ACFT)

5 Key Performance Indicators (KPIs)

This report presents Key Performance Indicators (KPIs) to assess the operational efficiency of the “Azeronavigation” ATD in terms of provision of air traffic services. All the calculations are done for “Bakuaeronavigation” due to low traffic at the regional airports.

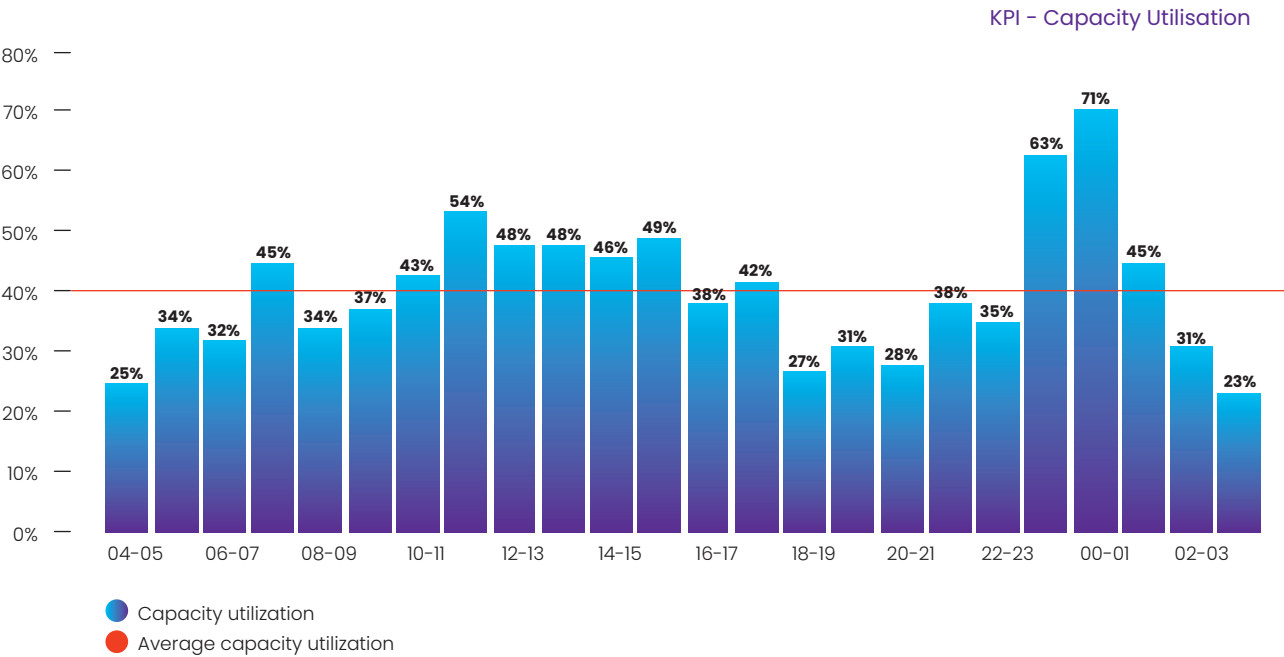
5.1 KPI – Capacity Utilization.

Capacity utilization assesses how effectively capacity is managed. It is a measure of accommodated demand, compared to the available capacity of Baku FIR.

KPI – Capacity Utilization is calculated by the formula: the value of “accommodated demand” is divided by the value of “capacity” and is multiplied by 100%.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2022	16	16	26	25	29	34	37	37	36	35	34	34
2023	33	33	37	40								

Capacity Utilization April 2023 **40%**



5.2 KPI – Total Distance flown.

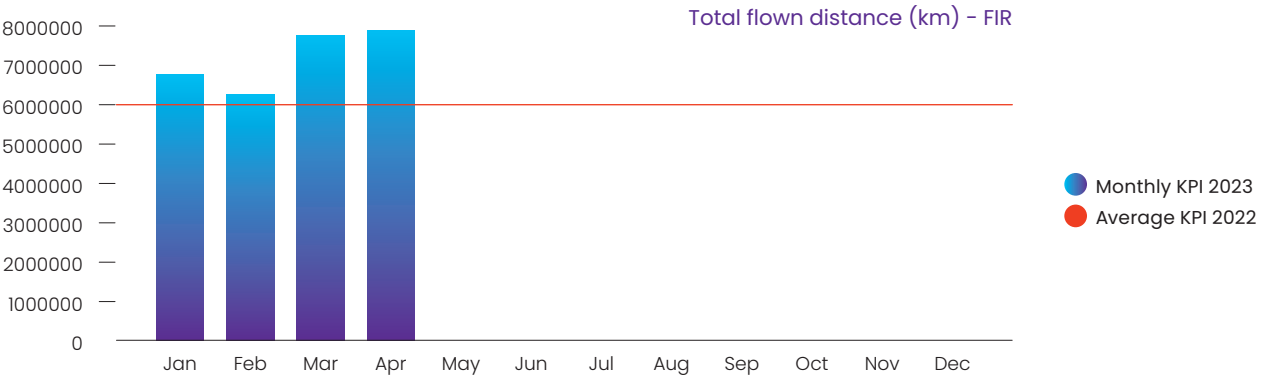
KPI-Flown distance is a total flown distance. KPI is km.

5.2.1 KPI – Total Distance flown – Baku FIR. (Combined en-route traffic and aerodrome movements).

All the traffic data of Baku FIR (overflight and aerodrome movements) is used for calculation of KPI – Total flown distance (FIR).

	Jan	Feb	Mar	Apr	May	Jun
2022	3 017 241	2 828 769	5 247 488	5 021 980	5 855 889	6 700 779
2023	6 826 061	6 226 183	7 721 660	7 971 465		

	Jul	Aug	Sep	Oct	Nov	Dec
2022	7 478 958	7 531 786	7 018 478	7 081 076	6 805 131	7 019 174
2023						

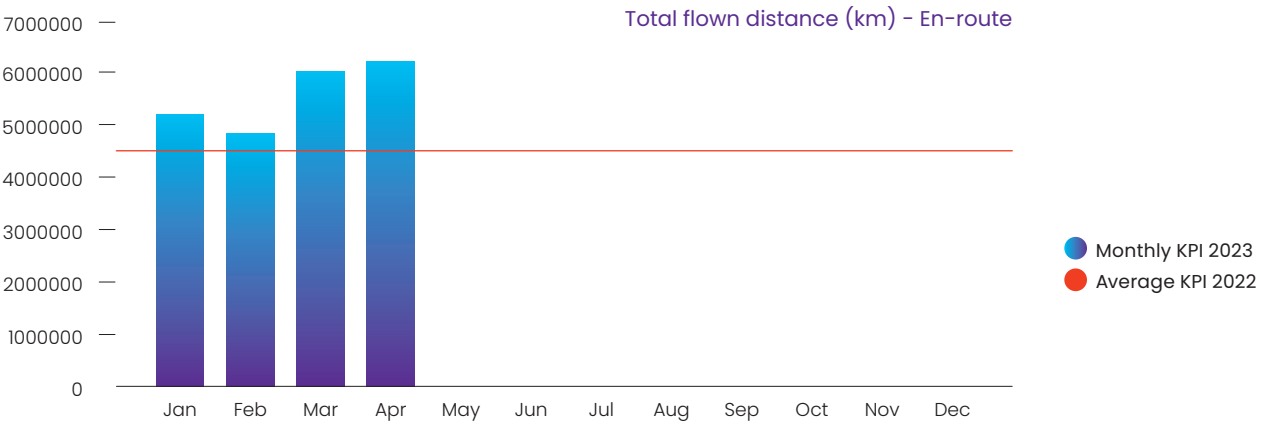


5.2.2 KPI – Total Distance flown – En-route traffic.

Only overflight traffic data is used for calculation of Total flown distance (ENR).

	Jan	Feb	Mar	Apr	May	Jun
2022	1 929 590	1 875 524	3 950 238	3 876 366	4 429 406	4 988 482
2023	5 296 353	4 803 864	5 979 971	6 278 415		

	Jul	Aug	Sep	Oct	Nov	Dec
2022	5 440 267	5 509 422	5 281 026	5 341 818	5 228 581	5 412 507
2023						



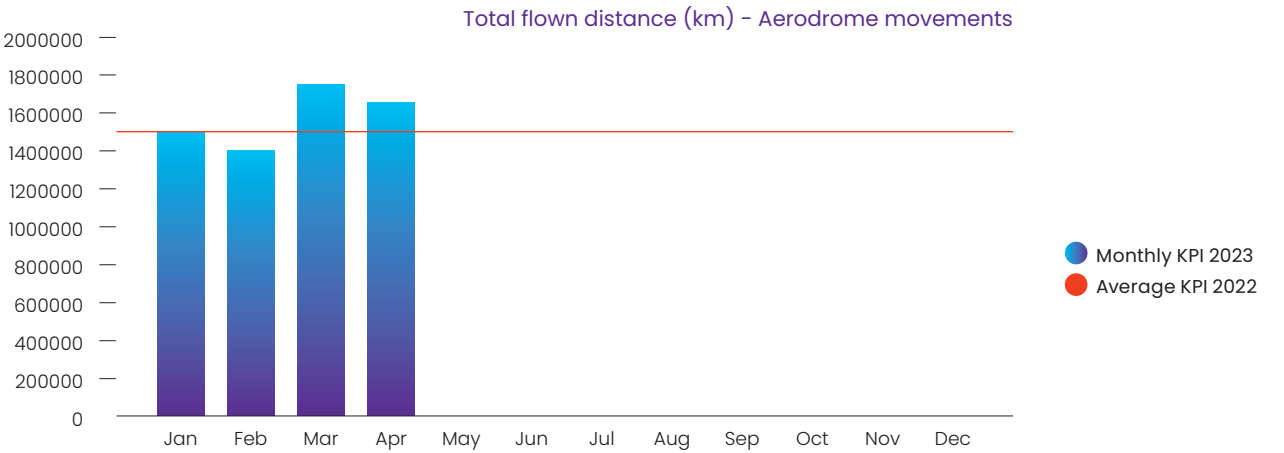


5.2.3 KPI – Total Distance flown – Aerodrome movements.

Only aerodrome movements data is used for calculation of Total flown distance (AD).

	Jan	Feb	Mar	Apr	May	Jun
2022	1 087 652	953 245	1 297 250	1 145 614	1 426 483	1 712 296
2023	1 529 708	1 422 319	1 741 689	1 693 050		

	Jul	Aug	Sep	Oct	Nov	Dec
2022	2 038 691	2 022 364	1 737 452	1 739 258	1 576 550	1 606 667
2023						



5.3 KPI-Average flown distance per ACFT

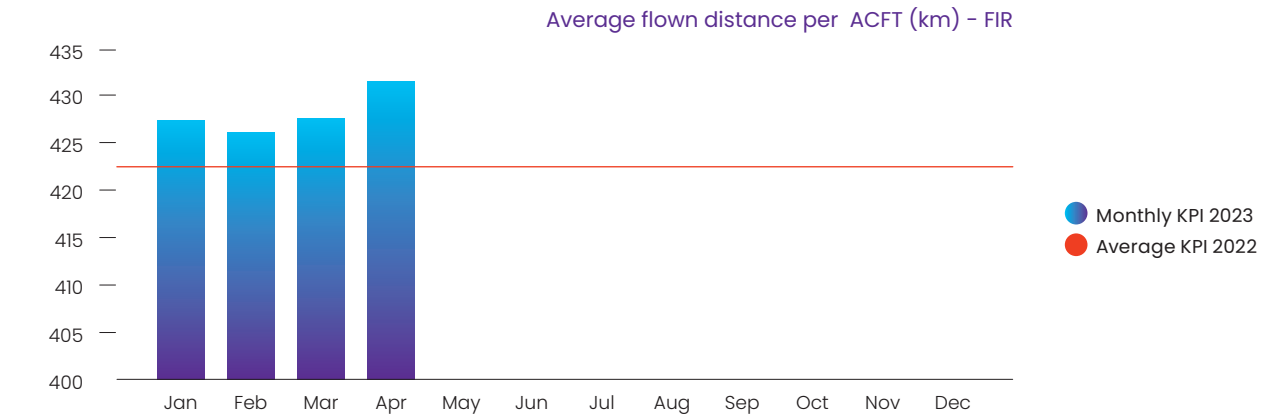
KPI- Average flown distance is calculation of average distance flown by ACFT by the following formula: the value of “total flown distance in kilometers” is divided by the value of “number of ACFT”. KPI is km/ACFT.

5.3.1 KPI – Average flown distance (FIR)

All the traffic data of Baku FIR (overflight and aerodrome movements) is used for calculation of average flown distance (FIR).

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2022	413	419	424	429	424	422	420	422	421	423	427	429
2023	428	427	428	431								

KPI – Average flown distance (FIR) April 2023 **431 km/ACFT**

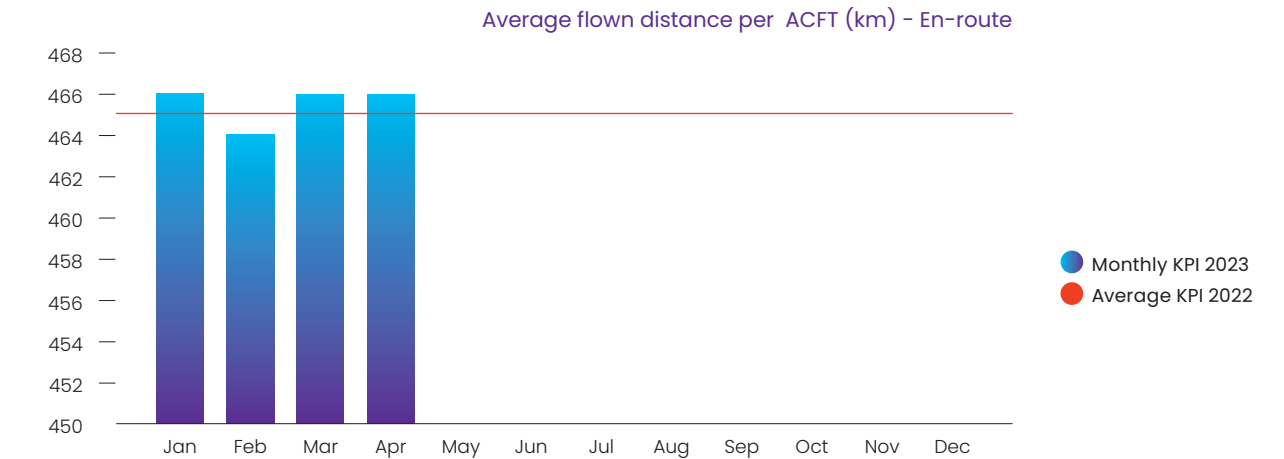


5.3.2 KPI – Average flown distance (ENR)

Only overflight traffic data is used for calculation of KPI – Average flown distance (ENR).

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2022	475	478	462	462	459	460	461	462	461	464	467	468
2023	466	464	466	466								

KPI – Average flown distance (ENR) April 2023 **466 km/ACFT**

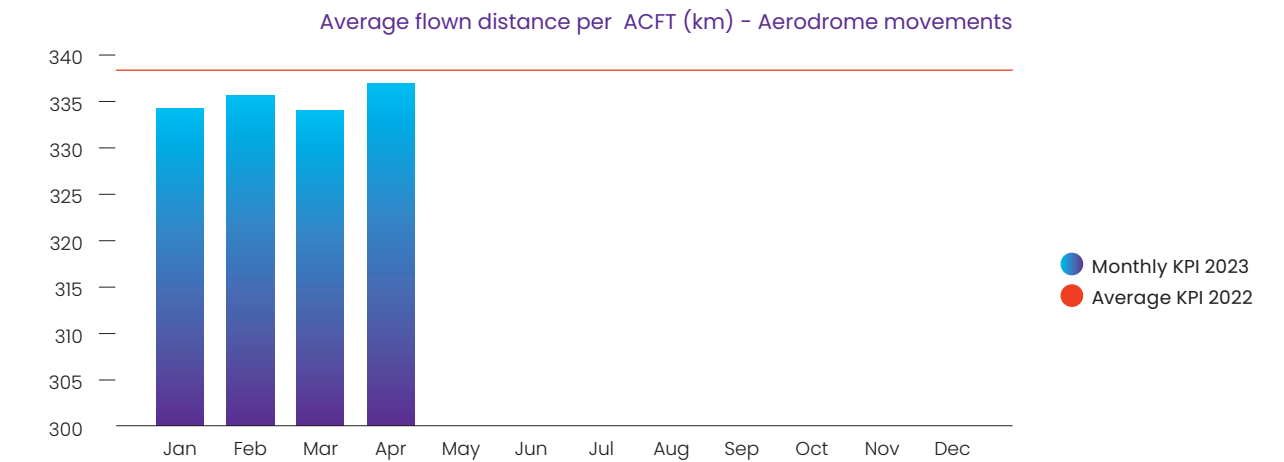


5.3.3 KPI- Average flown distance (AD)

Only aerodrome movements data is used for calculation of Average flown distance (AD).

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2022	335	337	340	345	342	340	339	340	334	333	334	335
2023	334	336	333	337								

KPI – Average flown distance (AD) April 2023 **337 km/ACFT**



5.4 KPI –Total IFR/hours

KPI- IFR/hours is a total flown IFR/hours. KPI is IFR/hours.

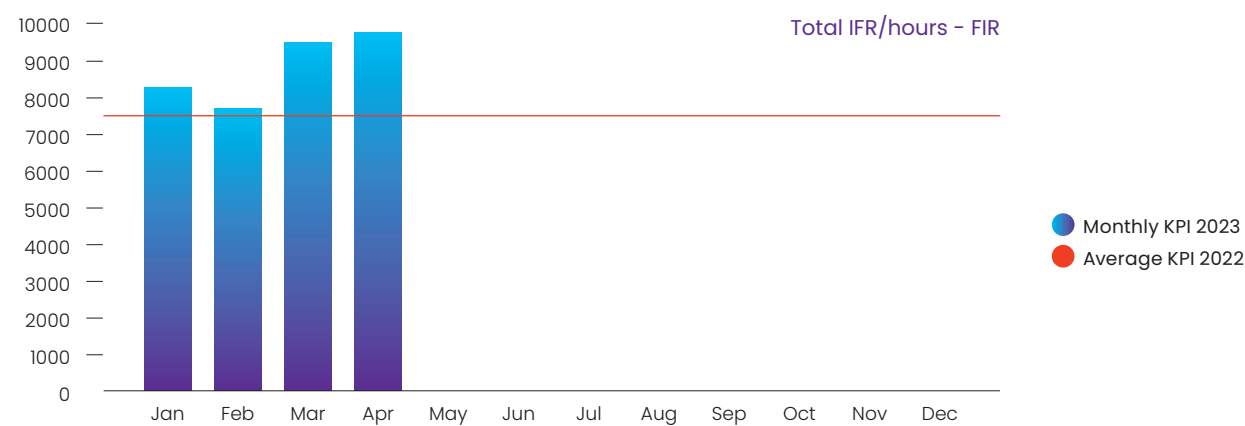
5.4.1 Total IFR/hours –FIR Baku

All the traffic data of Baku FIR (overflight and aerodrome movements) is used for calculation of KPI – IFR/hours (FIR).

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2022	3863	3610	6510	6153	7216	8287	9204	9218	8609	8728	8343	8616
2023	8388	7665	9484	9709								

KPI – Total IFR/hours (FIR) April 2023

9709 IFR/hours



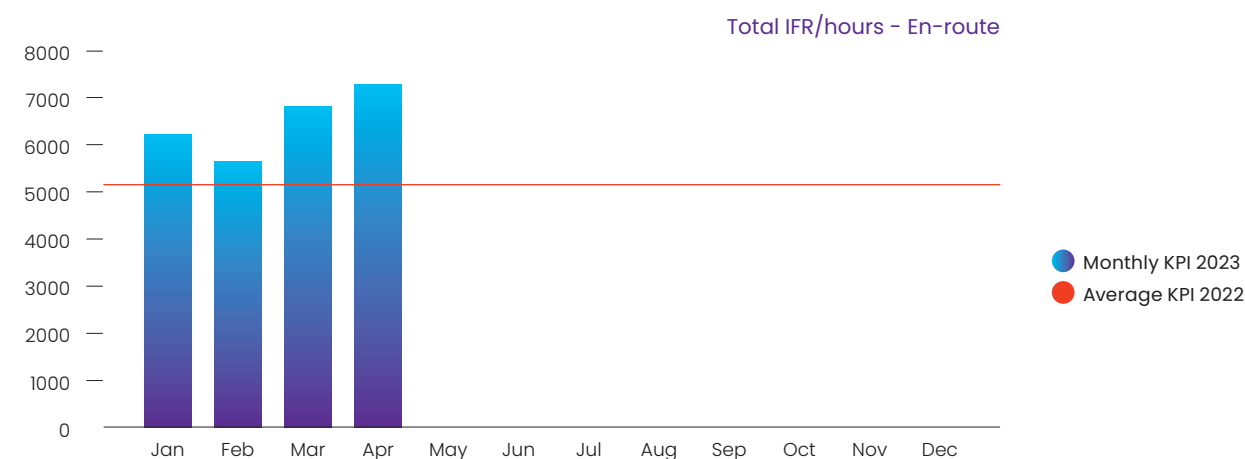
5.4.2 Total IFR/hours –Enroute

Only overflight traffic data is used for calculation of KPI – IFR/hours (ENR).

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2022	2257	2183	4569	4477	5098	5727	6192	6272	6061	6157	6035	6271
2023	6147	5579	6908	7236								

KPI – Total IFR/hours (ENR) April 2023

7236 IFR/hours



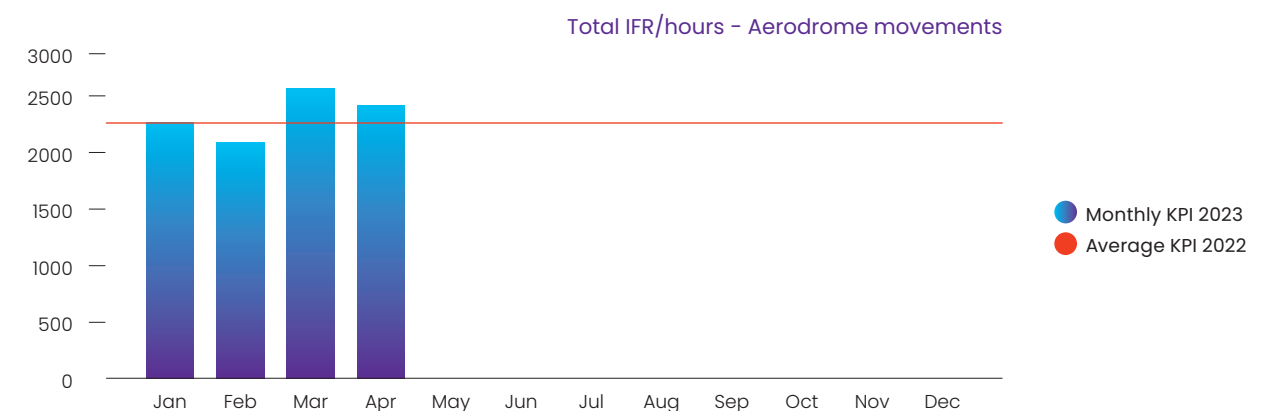
5.4.3 Total IFR/hours –Aerodrome movements

Only aerodrome movements data is used for calculation of KPI – IFR/hours (AD).

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2022	1607	1427	1941	1676	2118	2560	3012	2947	2548	2572	2308	2346
2023	2241	2086	2576	2473								

KPI – Total IFR/hours (AD) April 2023

2473 IFR/hours



5.5 KPI – Average IFR/min per ACFT

KPI – IFR/min per ACFT is an average flown IFR/min per ACFT. KPI is IFR/hours.

KPI – Average flown IFR/min per ACFT is calculation of average time flown by ACFT by the following formula: the value of “total flown time in minutes” is divided by the value of “number of ACFT”. KPI is min/ACFT.

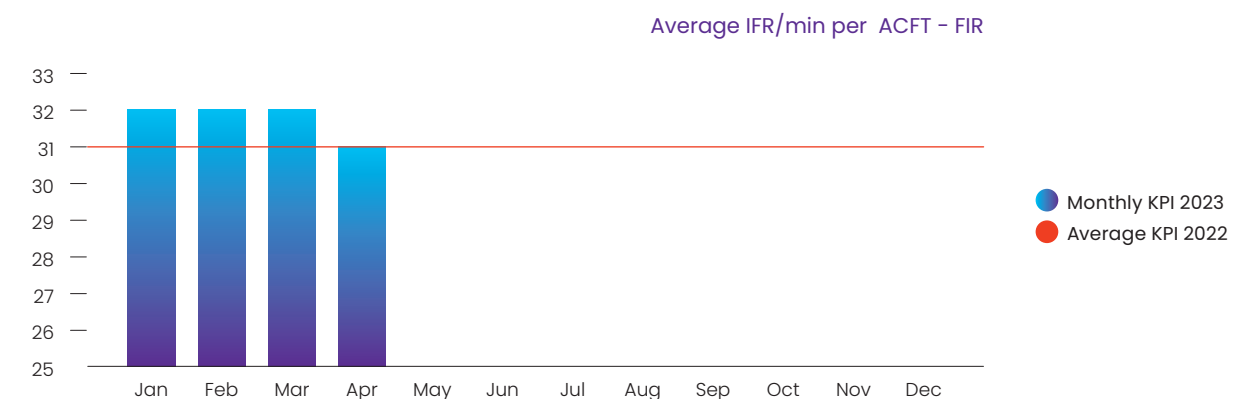
5.5.1 Average IFR/min per ACFT – FIR Baku

All the traffic data of Baku FIR (overflight and aerodrome movements) is used for calculation of KPI – Average IFR/min per ACFT (FIR).

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2022	32	32	32	32	31	31	31	31	31	31	31	32
2023	32	32	32	31								

KPI – Average IFR/min per ACFT (FIR) April 2023

31 min/ACFT



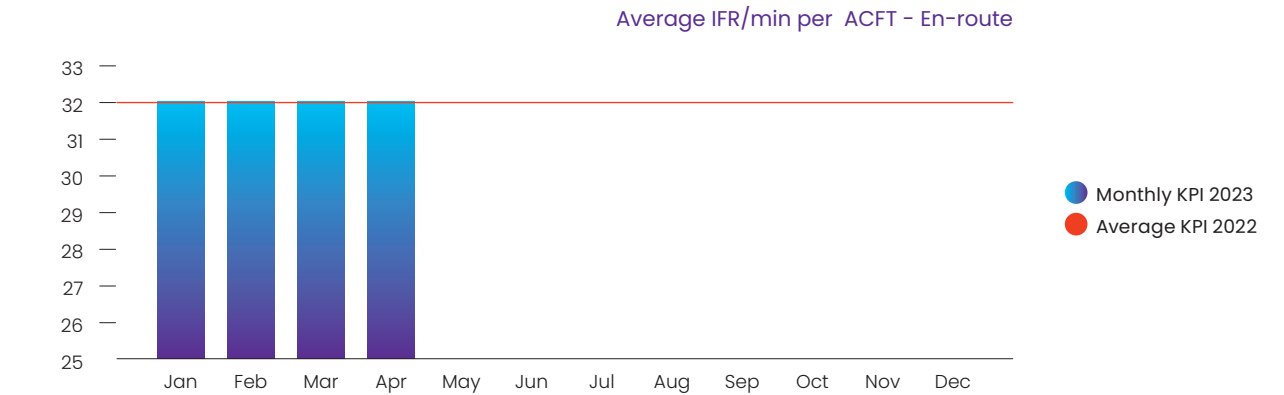


5.5.2 Average IFR/min per ACFT – En-route

Only overflight traffic data is used for calculation of KPI – Average IFR/min per ACFT (ENR).

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2022	33	33	32	32	32	32	32	32	32	32	32	33
2023	32	32	32	32								

KPI – Average IFR/min per ACFT (ENR) April 2023 **32 min/ACFT**

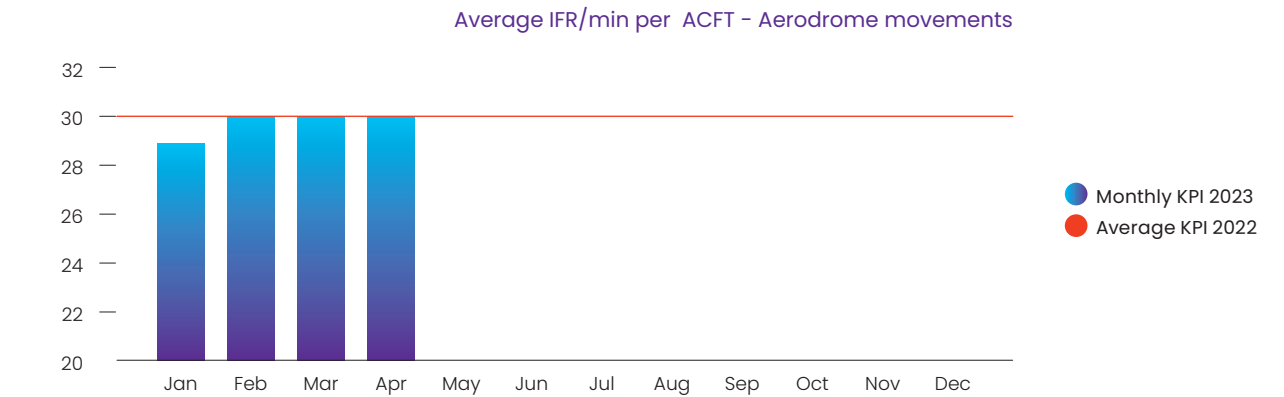


5.5.3 Average IFR/min per ACFT – Aerodrome movements

Only aerodrome movements data is used for calculation of KPI – Average IFR/min per ACFT (AD).

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2022	30	30	31	30	31	30	30	30	29	30	29	29
2023	29	30	30	30								

KPI – Average IFR/min per ACFT (AD) April 2023 **30 min/ACFT**



5.6 CANSO Productivity KPIs

The key indicator of ANS productivity is IFR flight hours per ATCO in OPS hour, often described as “ATCO in OPS productivity”.

Although generally reflective of ANSPs’ performance, factors beyond the control of the ANSP can cause low levels of productivity—for example a geopolitical event that alter traffic demand.

ATCO in OPS productivity is driven by traffic levels and an ANSP’s ability to utilize its ATCOs in operations (OPS) resources. Although they cannot affect traffic demand, ANSPs may improve productivity by utilizing flexible rostering and adapting airspace configuration to open and close sectors according to evolving traffic patterns.

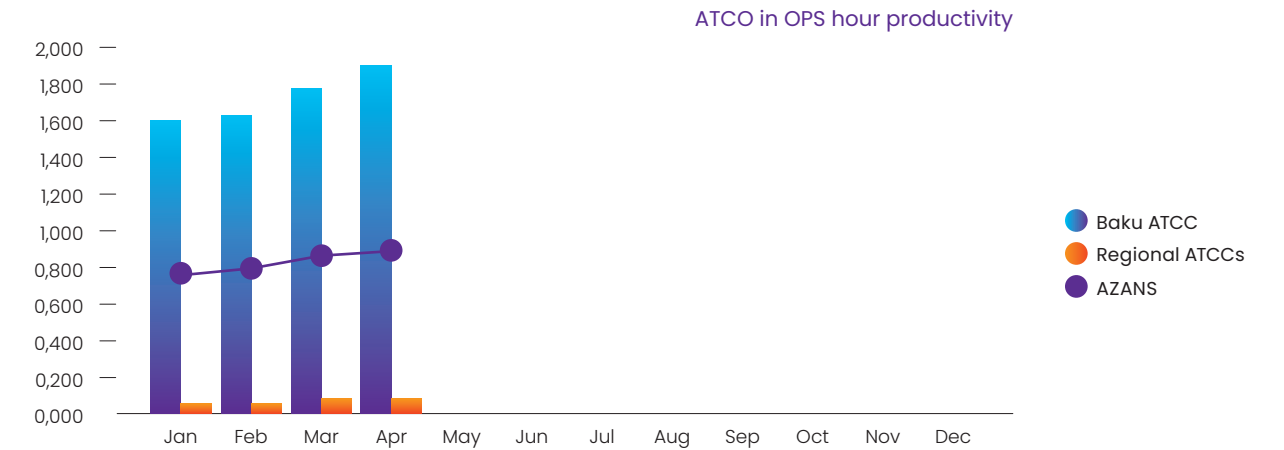
Furthermore, advances in technology are now focusing more than ever on reducing the workload of ATCOs in OPS to enable them to safely manage higher levels of traffic in a given volume of airspace. Training associated with the introduction of technology, however, can lead to short-term reductions in productivity.

Airspace complexity also affects ATCO in OPS productivity. Lower airspace will typically have lower levels of ATCO in OPS productivity than upper airspace where aircraft are flying at more consistent altitudes and on non-crossing routes. Therefore, an ANSP operating a high proportion of sectors in lower airspace, or with numerous busy airports with complex approach sectors, is likely to have lower ATCO in OPS productivity than an ANSP with more overflights at higher altitude.

5.6.1 ATCO in OPS hour productivity (CANSO KPI 2B)

KPI “ATCO in OPS hour productivity” is calculated by formula “IFR flight hours” divided by “ATCOs in OPS hours”

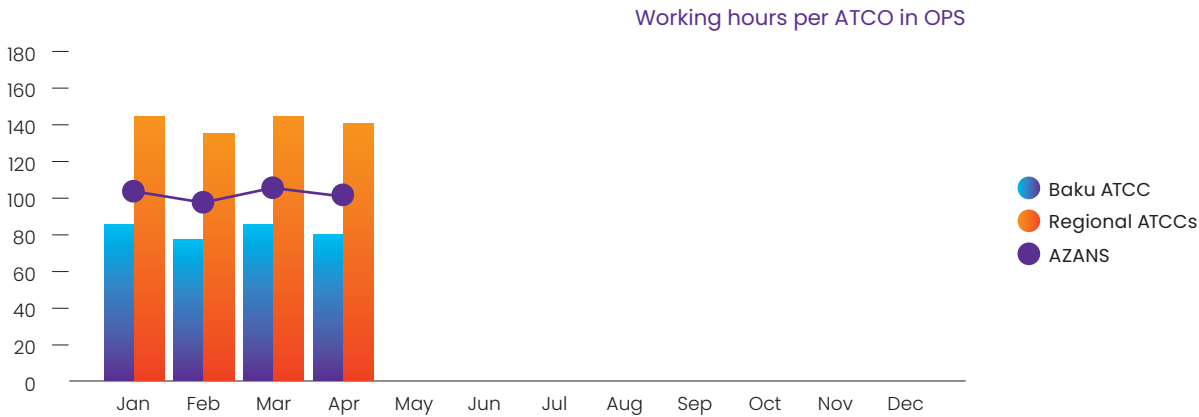
ATCO in OPS hour productivity (AZANS) April 2023	0.909
ATCO in OPS hour productivity (Baku ATCC) April 2023	1.886
ATCO in OPS hour productivity (Regional ATCCs) April 2023	0.060



5.6.2 Working hours per ATCO in OPS (CANSO KPI 3B)

KPI “Working hours per ATCO in OPS” is calculated by formula “ATCO in OPS hours” divided “No of ATCO in OPS”

Working hours per ATCO in OPS (AZANS) April 2023	101.3
Working hours per ATCO in OPS (Baku ATCC) April 2023	81.3
Working hours per ATCO in OPS (Regional ATCCs) April 2023	143.4



5.6.3 IFR hours per ATCO in OPS (CANSO KPI 3C)

KPI “IFR hours per ATCO in OPS” is calculated by formula “IFR flight hours” divided by “No of ATCO in OPS”

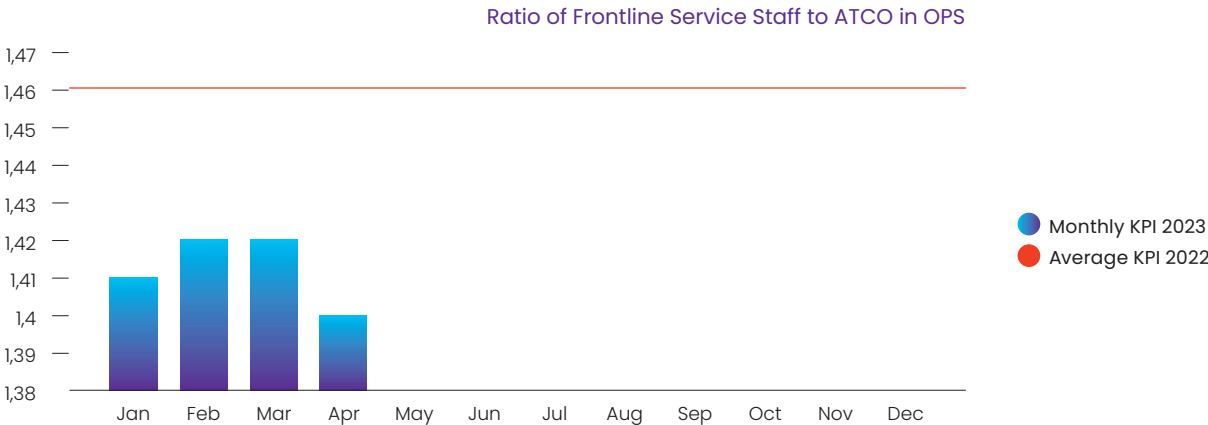
IFR hour per ATCO in OPS (AZANS) April 2023	52.4
IFR hour per ATCO in OPS (Baku ATCC) April 2023	77.6
IFR hour per ATCO in OPS (Regional ATCCs) April 2023	5.6



5.6.4 Ratio of Frontline Service Staff to ATCO in OPS (CANSO KPI 3D)

KPI “Ratio of Frontline Service Staff to ATCO in OPS” is calculated by formula “No. Frontline Service Support Staff” divided by “No of ATCO in OPS”

Ratio of Frontline Service Staff to ATCO in OPS April 2023	1.40
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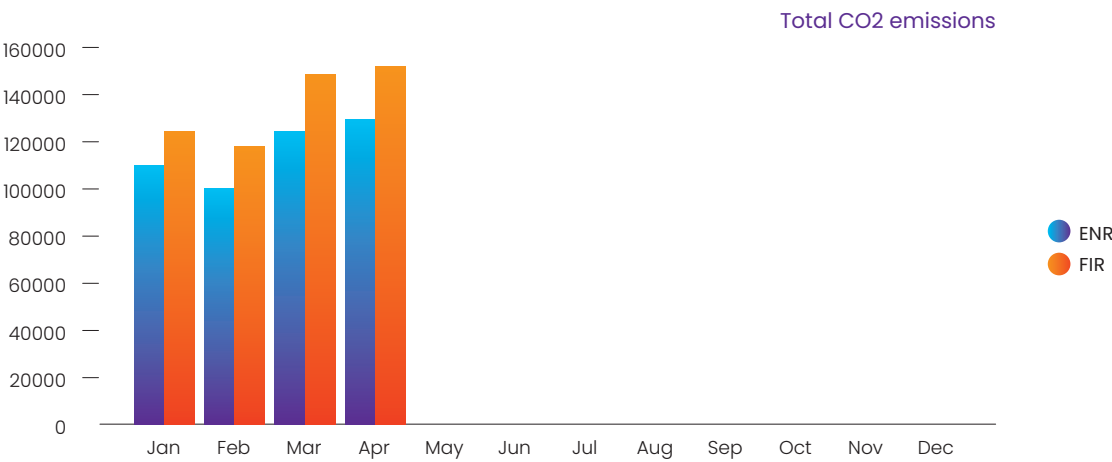


5.7 CO2 emissions

5.7.1 Total CO2 emissions

All the KPI’s for CO2 emissions are calculated for FIR, En-route (ENR) and Landing-take-off Operations (LTO).

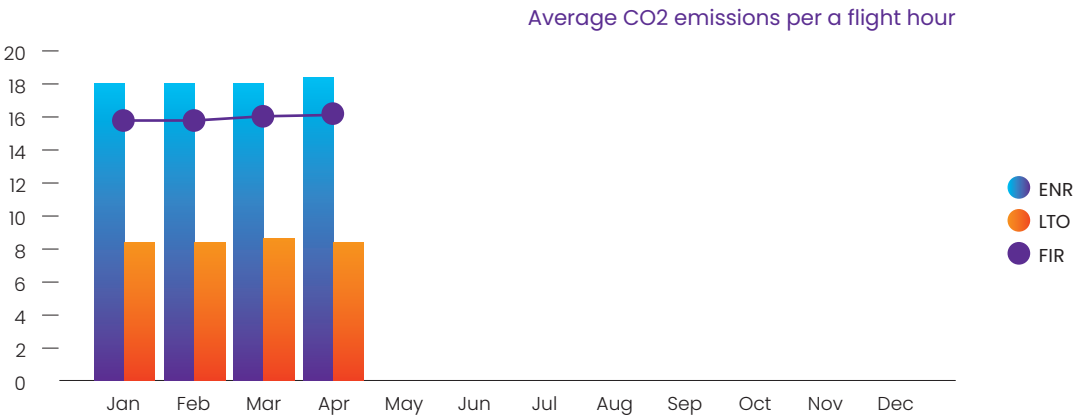
Total CO2 emissions (FIR) April 2023	152 984 tons
Total CO2 emissions (ENR) April 2023	132 495 tons
Total CO2 emissions (LTO) April 2023	20 489 tons



5.7.2 CO2 emissions per a flight hour

CO2 emissions per a flight hour (FIR) April 2023
CO2 emissions per a flight hour (ENR) April 2023
CO2 emissions per a flight hour (LTO) April 2023

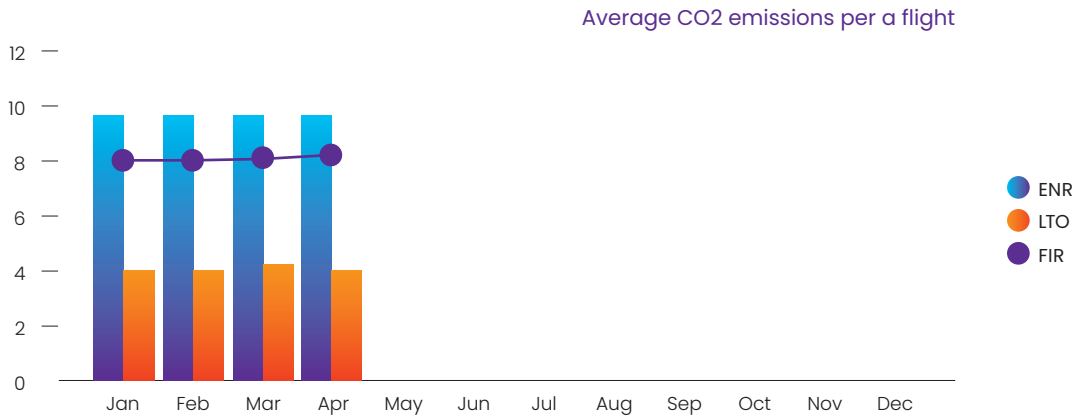
15.8 ton/hour
18.3 ton/hour
8.3 ton/hour



5.7.4 CO2 emissions per a flight

CO2 emissions per a flight (FIR) April 2023
CO2 emissions per a flight (ENR) April 2023
CO2 emissions per a flight (AD) April 2023

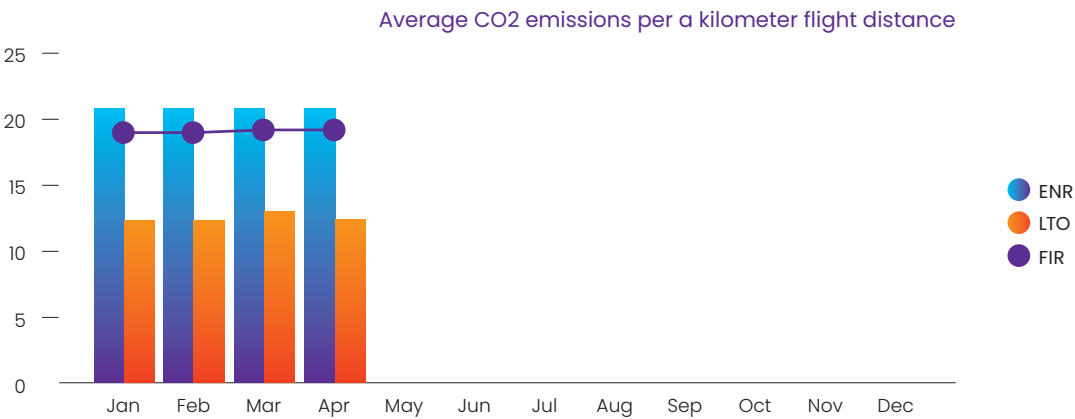
8.3 ton/flight
9.8 ton/flight
4.1 ton/flight



5.7.3 CO2 emissions per a kilometer flight distance

CO2 emissions per a kilometer flight distance (FIR) April 2023
CO2 emissions per a kilometer flight distance (ENR) April 2023
CO2 emissions per a kilometer flight distance (LTO) April 2023

19 kg/km
21 kg/km
12 kg/km

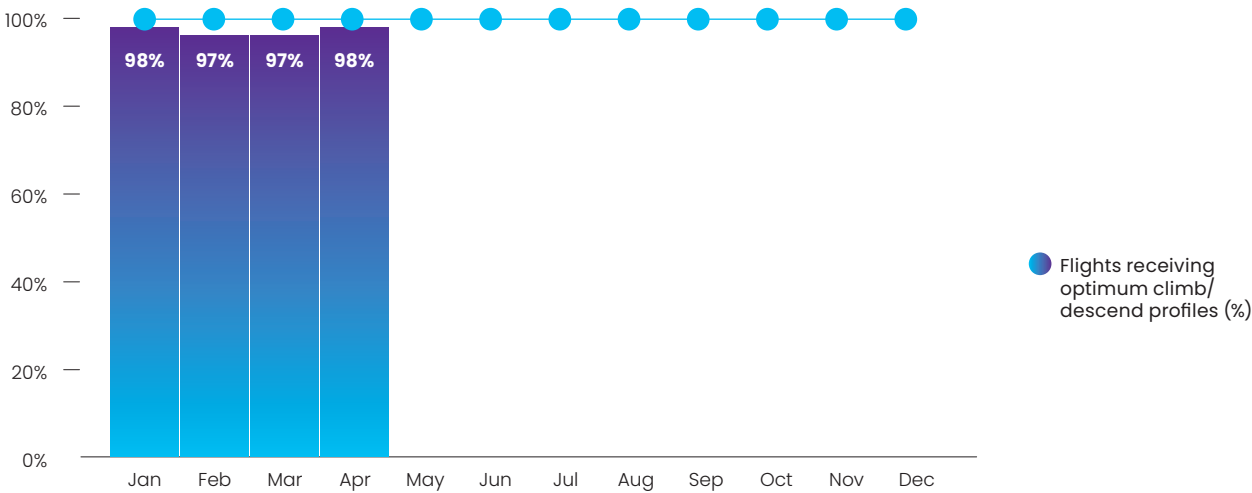


5.8 KPI – CCO/CDO operations

Introducing of CCO (Continues Climb Operations) and CDO (Continues Descend Operations) is an initiative to improve ATM efficiency, decrease fuel use and CO2 reduction.

«KPI – CCO/CDO operations » measures percentage of ACFT flown as CCO/CDO at airport Baku/Heydar Aliyev.

KPI – CCO/CDO operations April 2023 **98%**

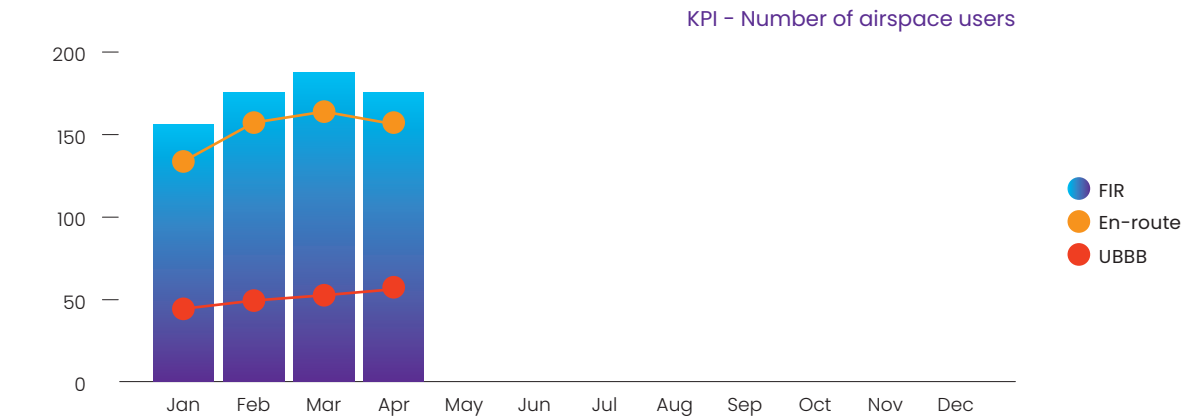


5.9 KPI – Number of airspace users

The main goal of AZANS, as an air navigation services provider, is to ensure flight safety and provide high-quality air navigation services. One of the indicators is the preservation and increase in the number of the service users – airlines.

Only commercial airlines operating cargo and passenger transportation were used to measure KPI – Number of airspace users. State and general aviation were not taken into account.

KPI – Number of airspace users (FIR) April 2023 **182 Airlines**
KPI – Number of airspace users (ENR) April 2023 **159 Airlines**
KPI – Number of airspace users (AD) April 2023 **61 Airlines**



AIR TRAFFIC DEPARTMENT
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