



# Air Traffic Statistics Report

January 2023



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# 1 Baku FIR Air Traffic Statistics Data (IFR movements)

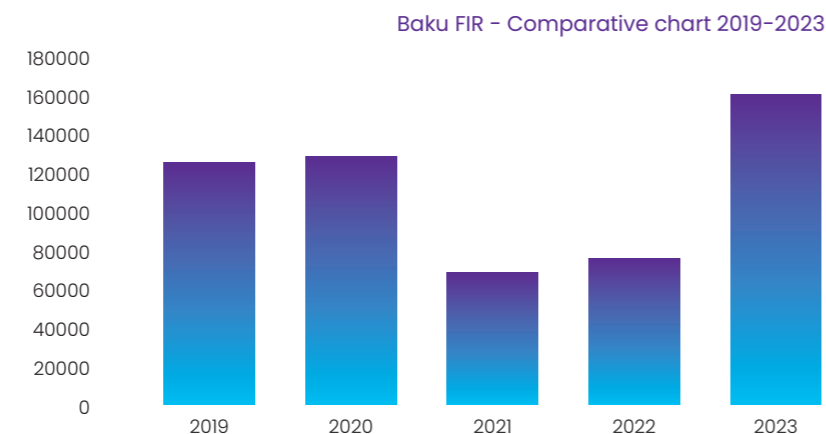
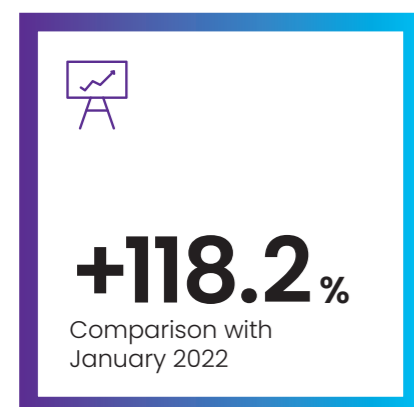
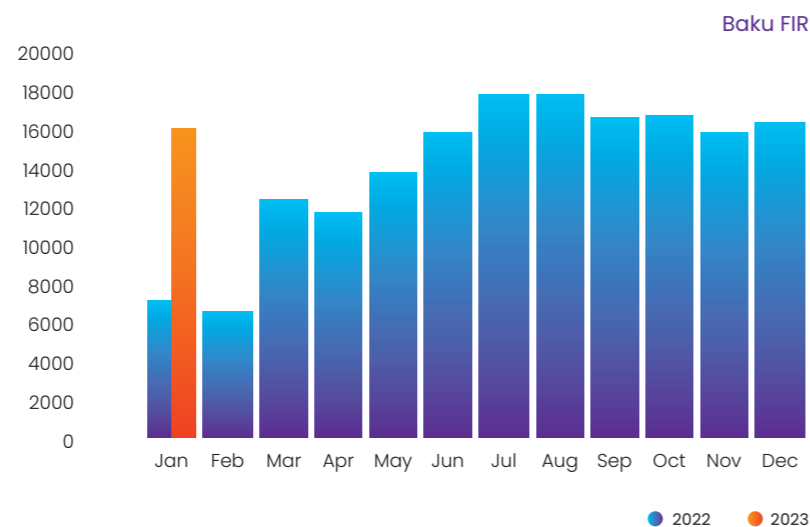
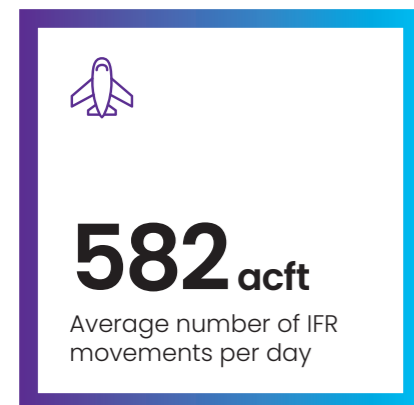
## 1.1 General Air Traffic Statistics Data



The number of IFR movements within Baku FIR recorded in January is **15951 ACFT**.

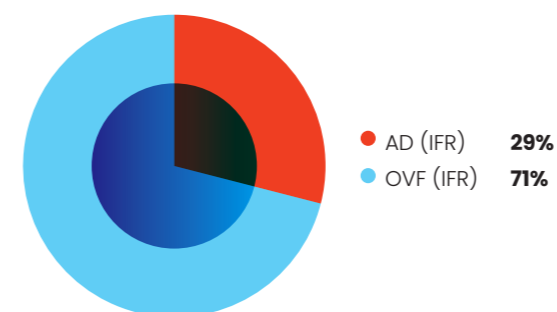
Average number of IFR movements per day is **515 ACFT** (Peak day, January 07, 2023 – **582 ACFT**; low day, January 01, 2023 – **437 ACFT**).

Comparison with January 2022 – **+118.2%**.



## 1.2 Traffic Segments

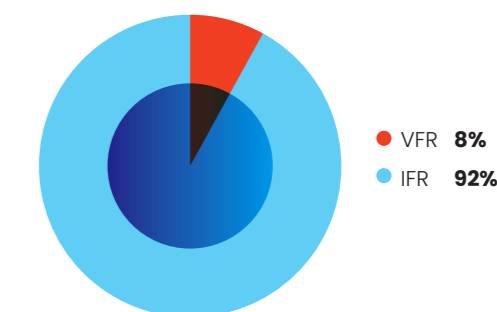
1.2.1 The number of IFR movements within Baku FIR recorded in January is **15951 ACFT**, where **11377 ACFT** are overflight traffic and **4574 ACFT** are aerodrome movements.



1.2.2 Total number of movements within Baku FIR recorded in January is **17247 ACFT**, where **15951 ACFT** are IFR movements and **1296 ACFT** are VFR movements.

Average number of movements per day is **557 ACFT**.

Comparison with January 2022 – **+93.9%**.

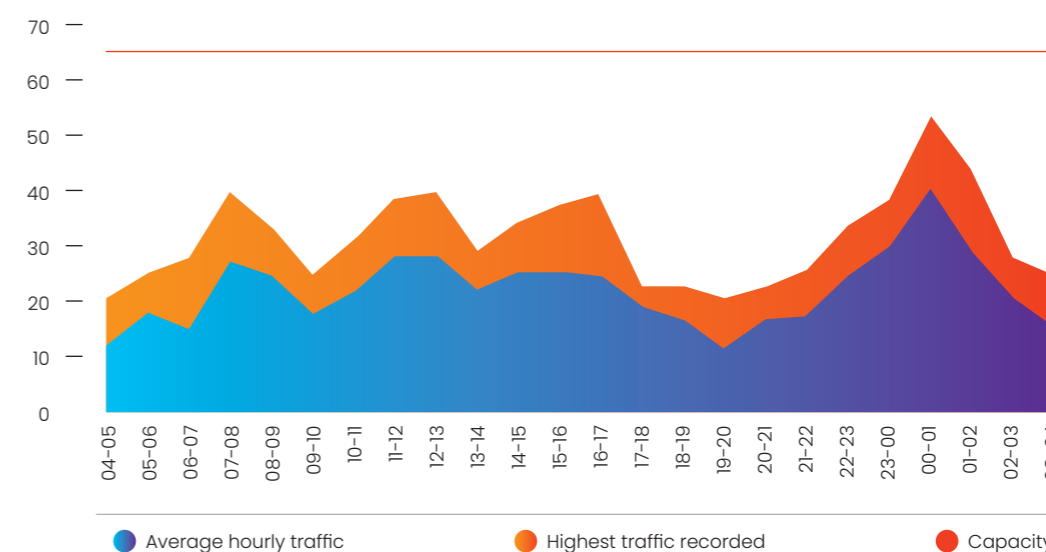


## 1.3 Capacity vs traffic demand

Highest traffic recorded **51 ACFT** (January 23, 2023 00:00-01:00)

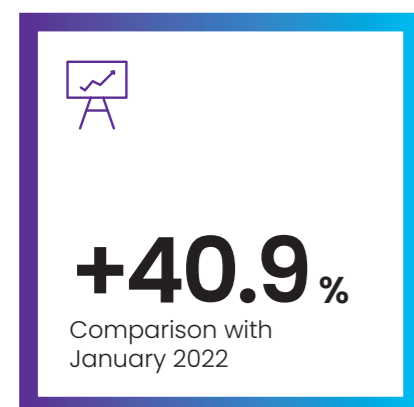
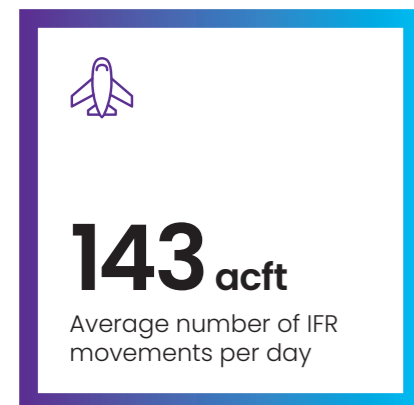
Peak hour (January average data):	00:00-01:00	<b>39 ACFT</b>
	23:00-00:00	<b>29 ACFT</b>
	01:00-02:00	<b>28 ACFT</b>
	11:00-12:00	<b>27 ACFT</b>
	12:00-13:00	<b>27 ACFT</b>

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



## 2 Aerodrome Movements Statistics Data

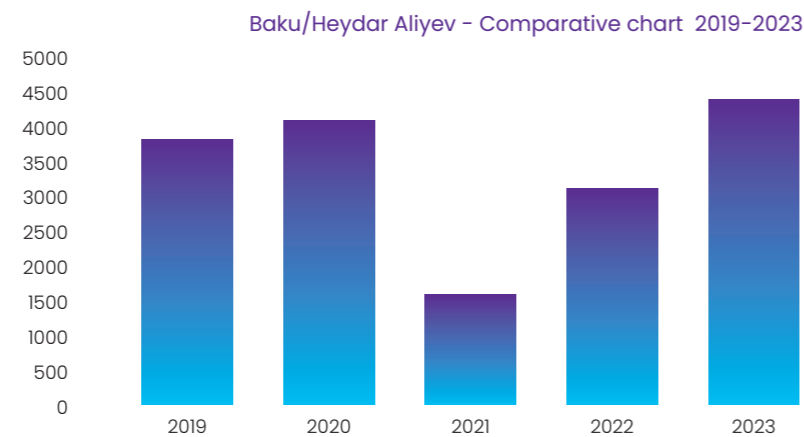
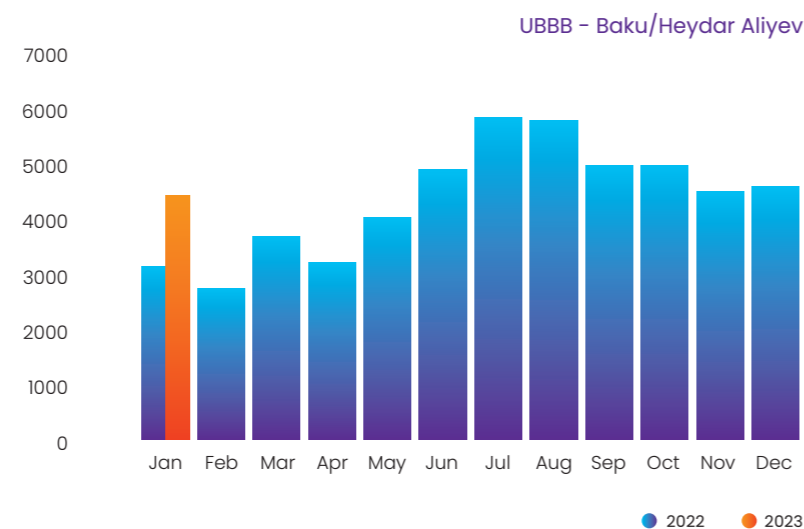
### 2.1 Heydar Aliyev International airport



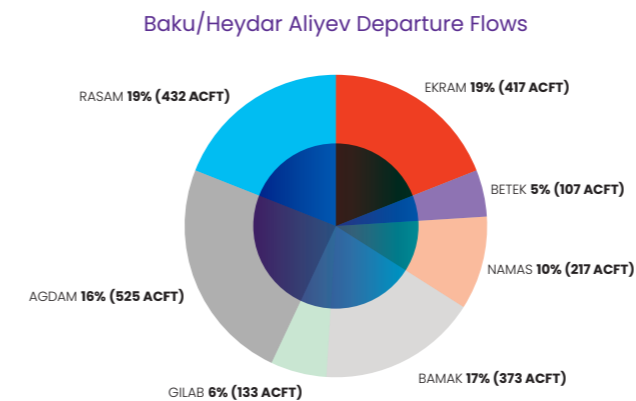
Total number of movements at Baku/Heydar Intl' Aliyev airport recorded in January is **4418 ACFT**.

Average number of movements per day is **143 ACFT** (Peak day, January 08, 2023 – **170 ACFT**; low day, January 01, 2023 – **97 ACFT**).

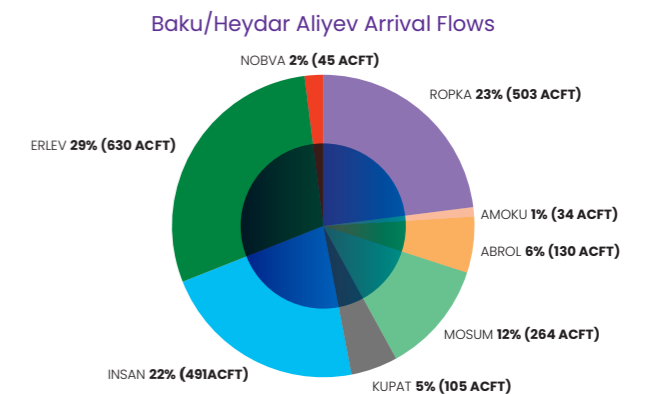
Comparison with January 2022 – **+40.9%**.



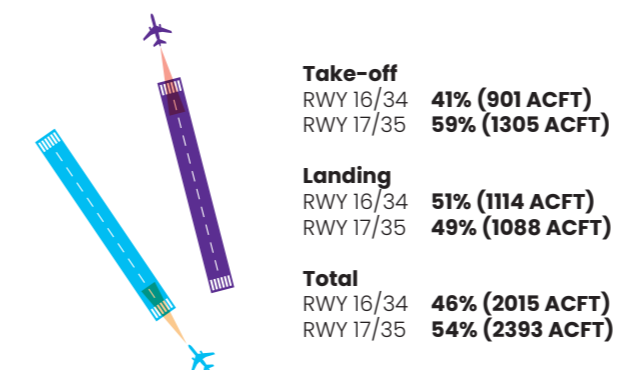
### 2.1.3 Air traffic flows – Load of SIDs.



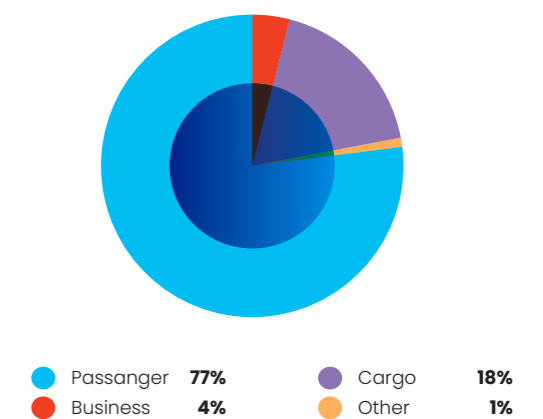
### 2.1.4 Air traffic flows – Load of STARs



### 2.1.5 Use of RWY 16/34 and 17/35

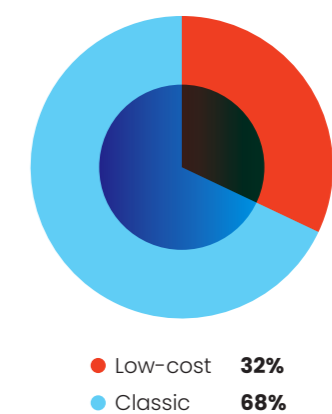


### 2.1.6 Types of flights

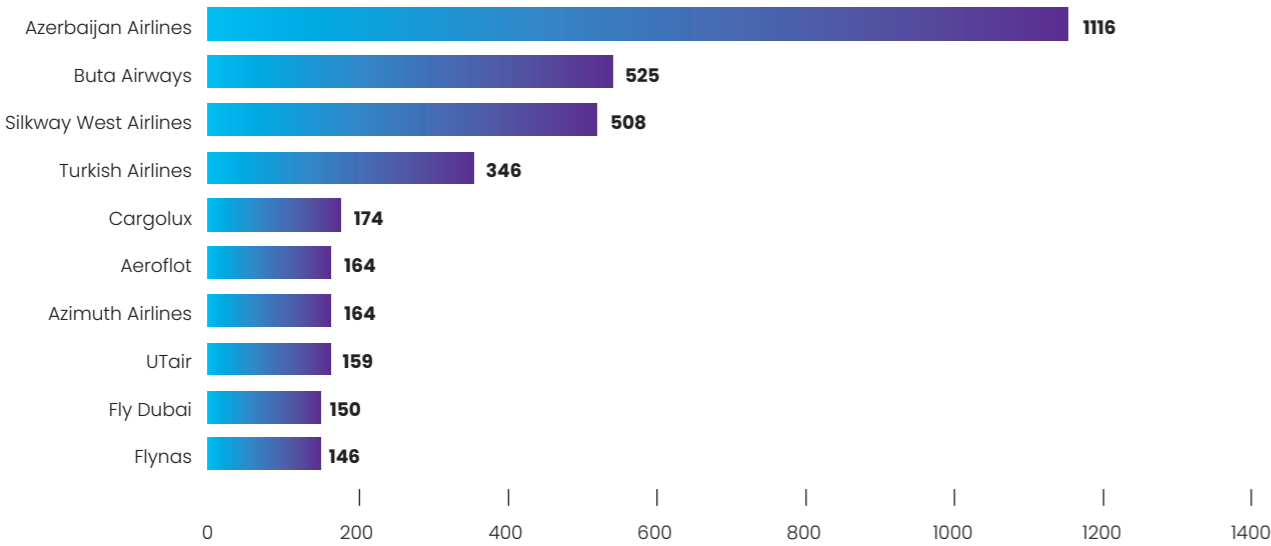


### 2.1.7 Passenger flights (Budget/low-cost vs classic)

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.**

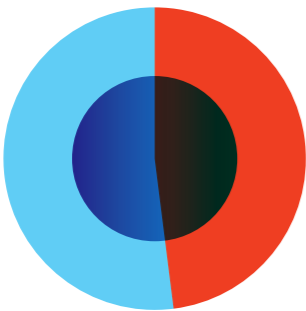


2.1.8 Aircraft Operators – Top 10 Airspace Users



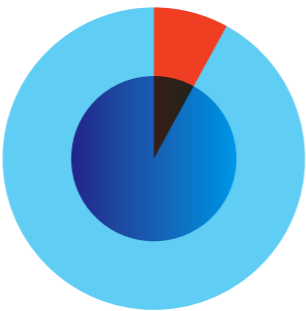
Note: This chart shows the number of flights in January 2023.

2.1.9 Aircraft Operators – Airlines of Azerbaijan vs international airlines



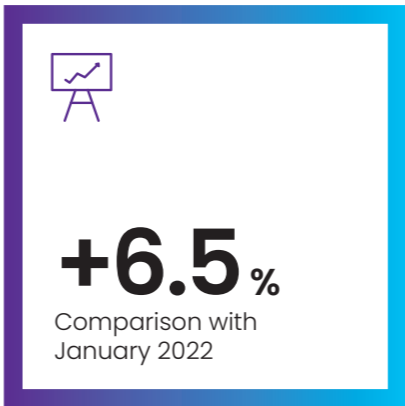
● International Airlines **48%**  
● Airlines of Azerbaijan **52%**

2.1.10 Traffic segments – Domestic vs International



● Domestic flights **8%**  
● International flights **92%**

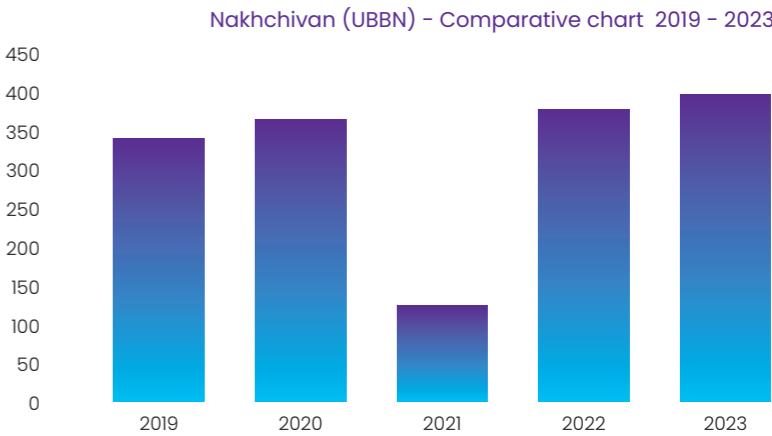
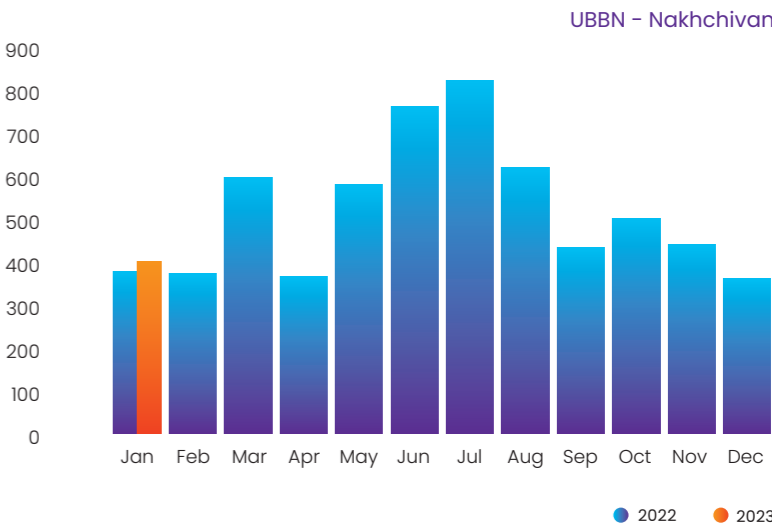
2.2 Nakhchivan International airport



Total number of movements at Nakhchivan International airport recorded in January is **394 ACFT**.

Average number of movements per day is **13 ACFT**.

Comparison with January 2022 – **+6.5%**.



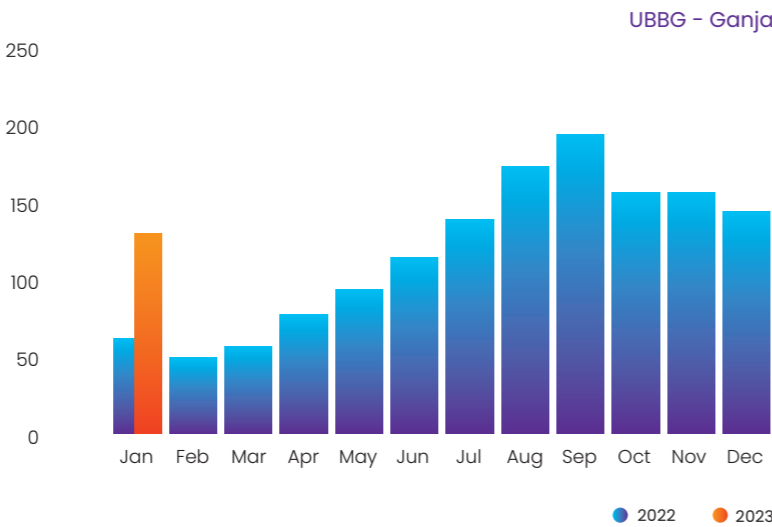
2.3 Ganja International airport



**128 acft**

The number of IFR movements within Baku recorded in January


Total number of movements at Ganja International airport recorded in January is **128 ACFT.**  
Average number of movements per day is **5 ACFT.**  
Comparison with January 2022 – **+116.9%.**





**5 acft**

Average number of IFR movements per day



**+116.9%**

Comparison with January 2022



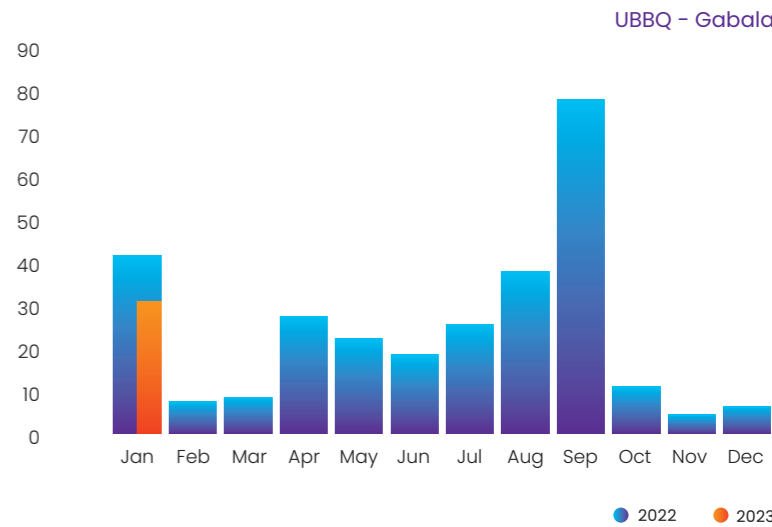
2.4 Gabala International airport



**32 acft**

The number of IFR movements within Baku recorded in January

Total number of movements at Gabala International airport recorded in January is **32 ACFT.**  
Average number of movements per day is **1 ACFT.**  
Comparison with January 2022 – **-23.8%.**





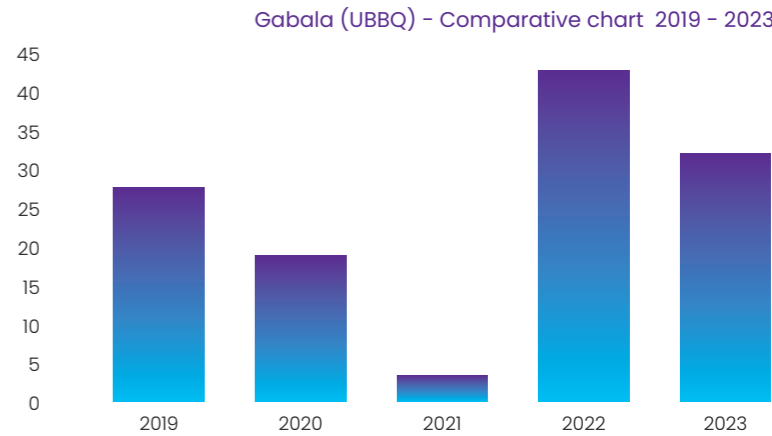
**1 acft**

Average number of IFR movements per day



**-23.8%**

Comparison with January 2022



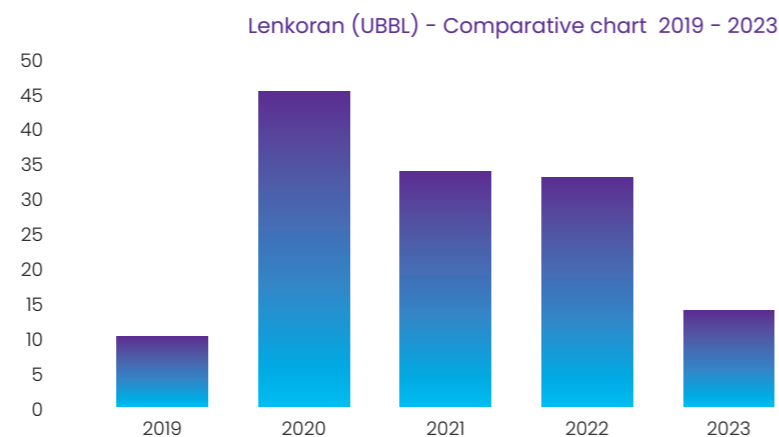
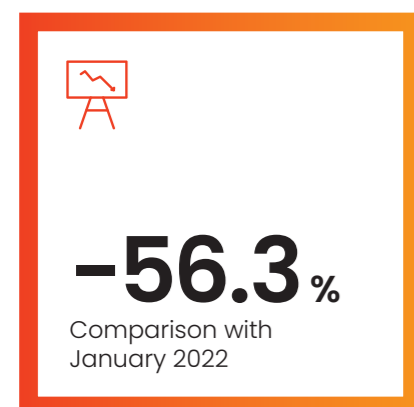
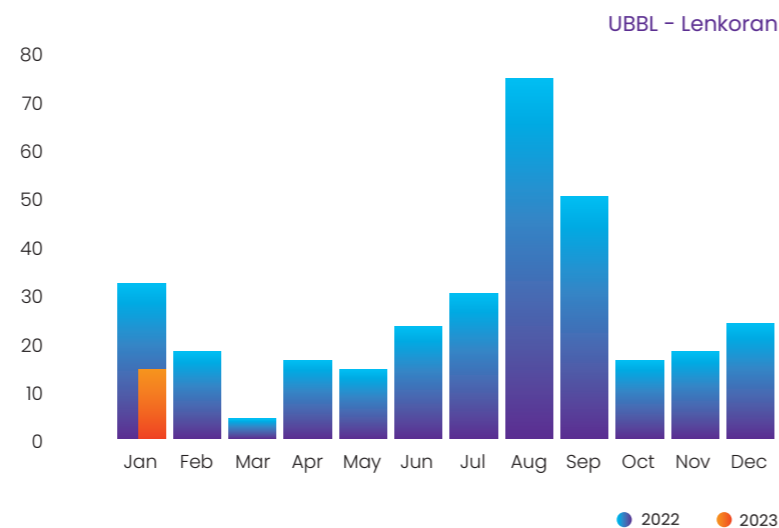
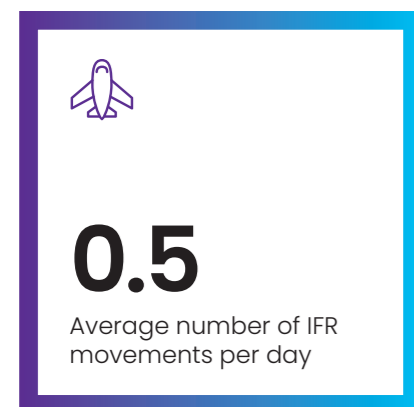
## 2.5 Lenkoran International airport



Total number of movements at Lenkoran International airport recorded in January is **14 ACFT**.

Average number of movements per day is **0.5**.

Comparison with January 2022 – **-56.3%**.



## 2.6 Fuzuli International airport.

No movements were recorded

## 2.7 Zagatala International airport.

No movements were recorded

## 2.8 Zangilan International airport.

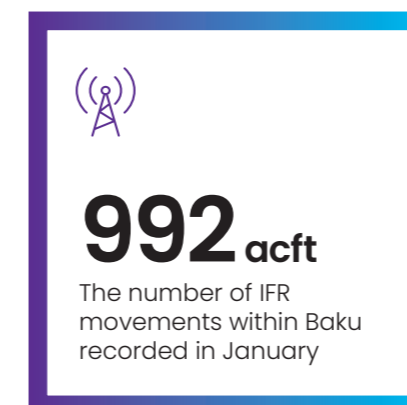
No movements were recorded

## 2.9Yevlakh airport.

No movements were recorded

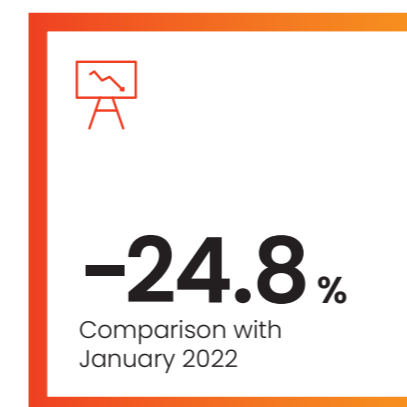
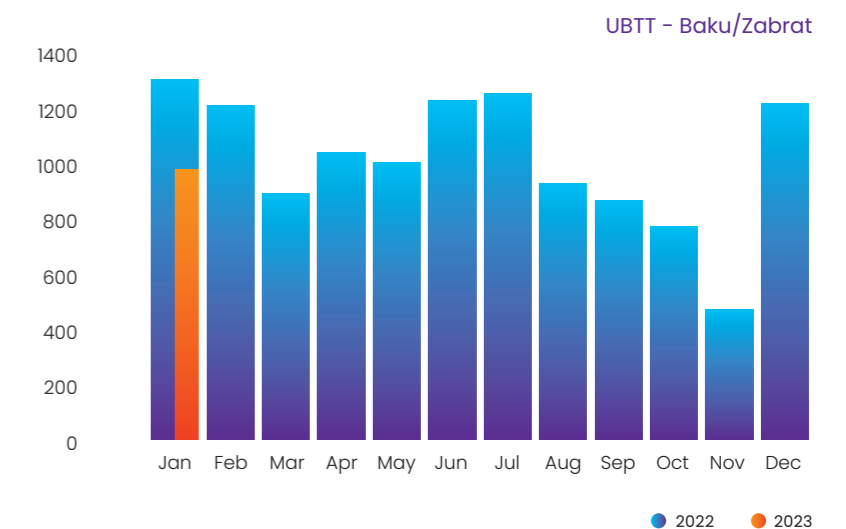
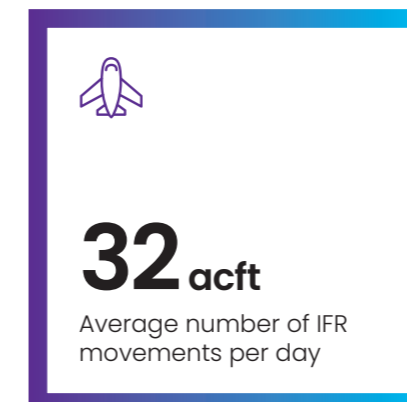
## 3 VFR Movements Statistics data

### 3.1 Baku/Zabrat airport

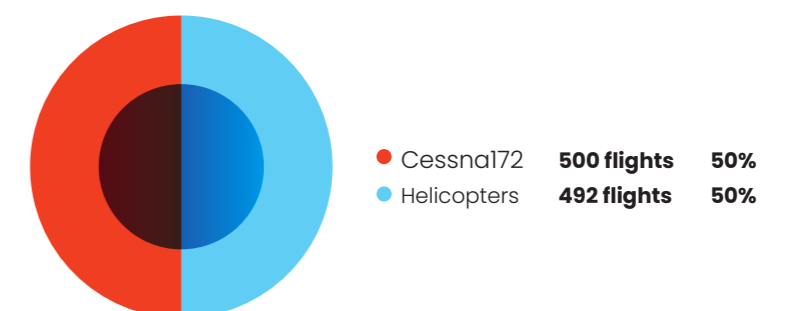


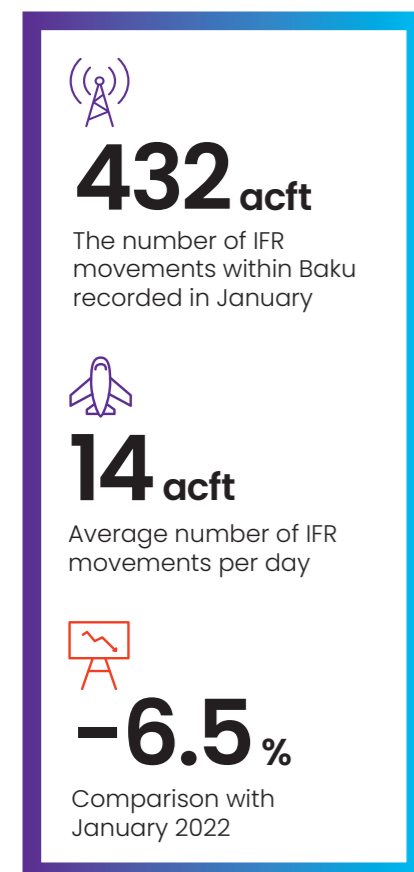
Total number of VFR movements at Baku/Zabrat airport recorded in January is **992 ACFT**. Average number of movements per day is **32 ACFT**.

Comparison with January 2022 – **-24.8%**.



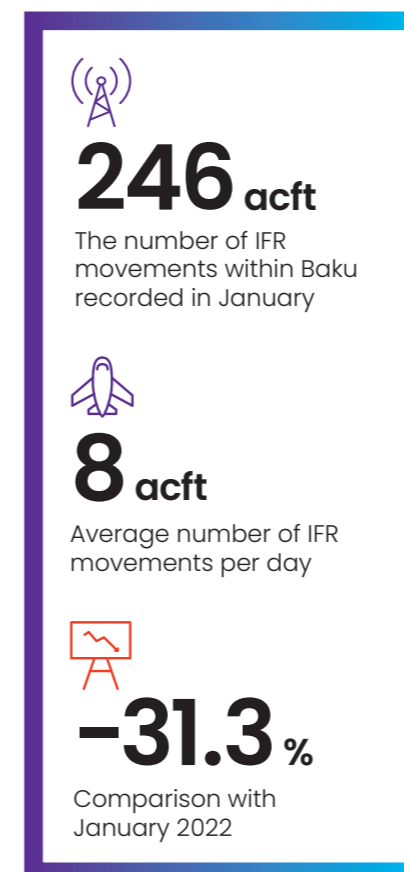
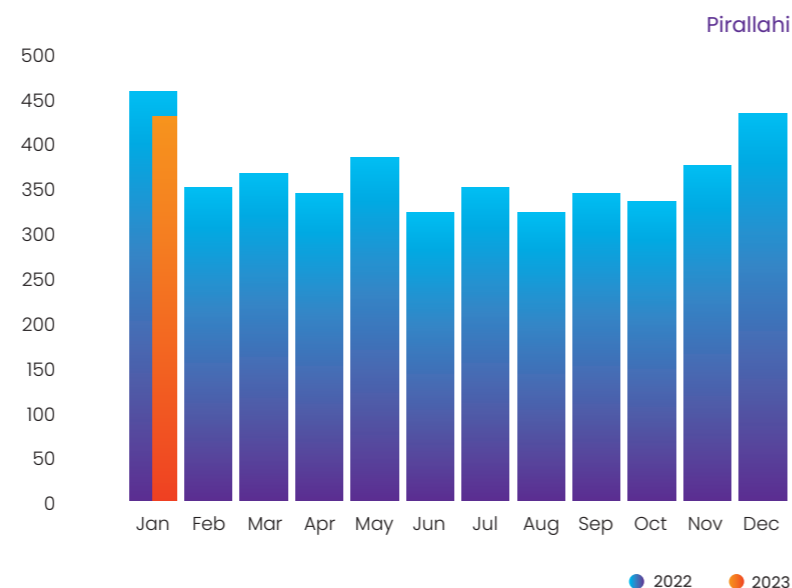
The Baku/Zabrat aerodrome is the base of training flights for student pilots of the National Aviation Academy. The student pilot training program includes en-route flight training and training maneuvers (take-off, landing, go-around) on the Cessna-172 aircraft





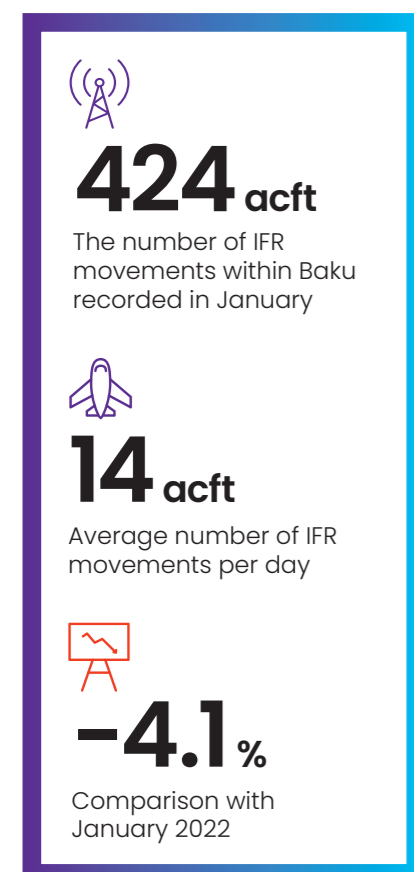
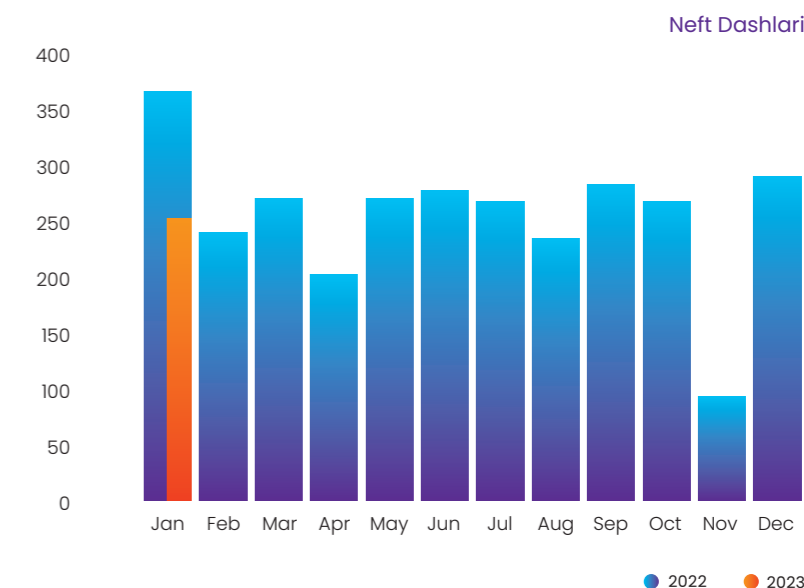
### 3.2 Pirallahi heliport

Total number of VFR movements at Pirallahi heliport recorded in January is **432 ACFT**.  
Average number of movements per day is **14 ACFT**  
Comparison with January 2022 – **-6.5%**.



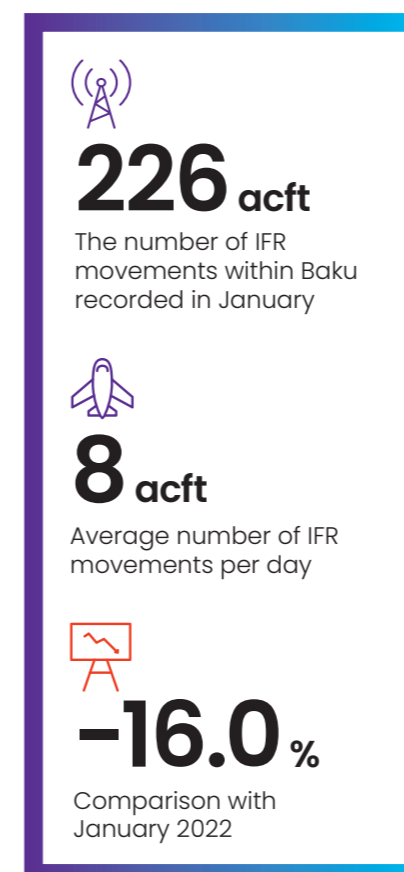
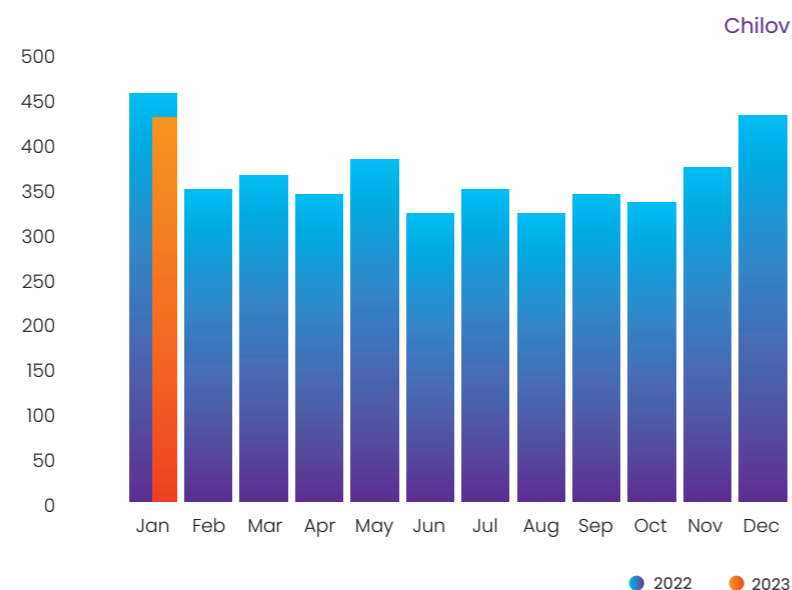
### 3.4 Neft Dashlari heliport

Total number of VFR movements at Neft Dashlari heliport recorded in January is **246 ACFT**.  
Average number of movements per day is **8 ACFT**  
Comparison with January 2022 – **-31.3%**.



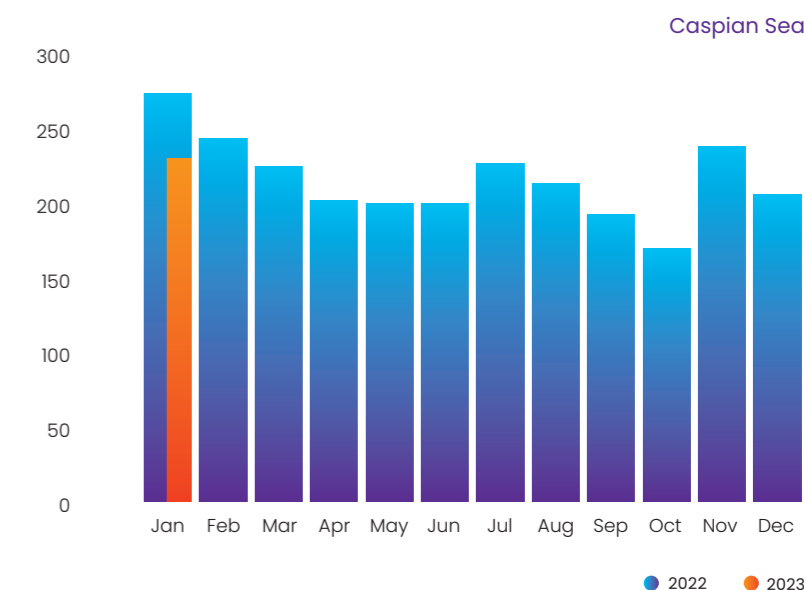
### 3.3 Chilov heliport

Total number of VFR movements at Chilov heliport recorded in January is **424 ACFT**.  
Average number of movements per day is **14 ACFT**  
Comparison with January 2022 – **-4.1%**.



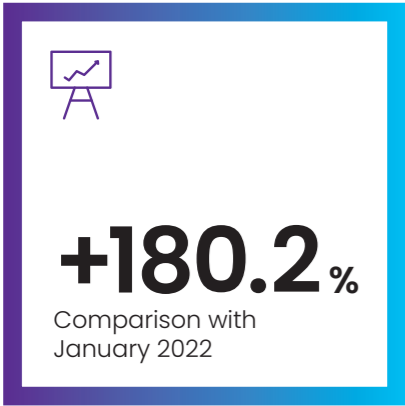
### 3.5 Helipads on the ships and offshore drilling rigs in the Caspian Sea

Total number of VFR movements at helipads on the ships and offshore drilling rigs in the Caspian Sea recorded in January is **226 ACFT**.  
Average number of movements per day is **8 ACFT**  
Comparison with January 2022 – **-16.0%**.



## 4 Overflight Air Traffic Statistics Data

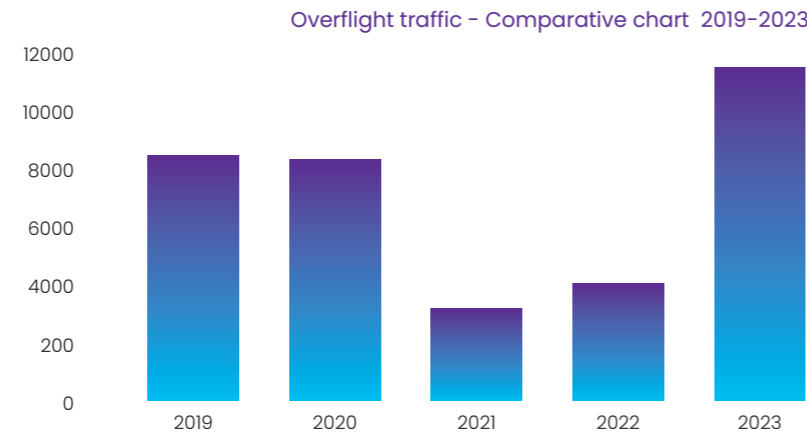
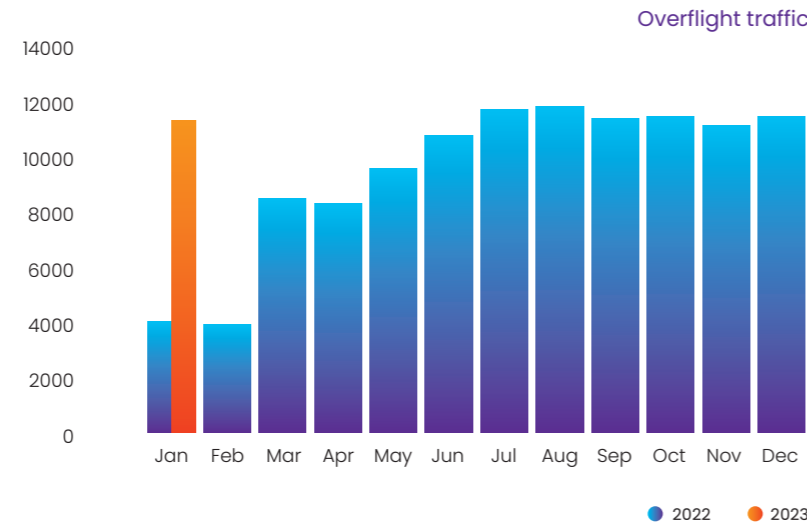
### 4.1 General Air Traffic Statistics Data



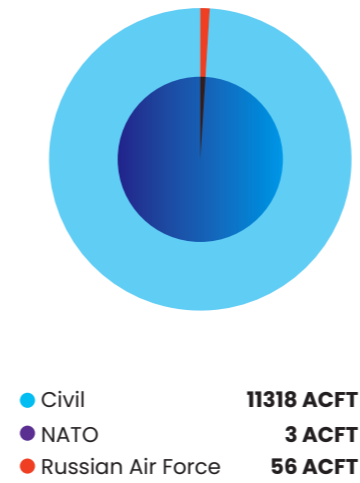
The number of overflights via Baku FIR recorded in January is **11377 ACFT**.

Average number of overflights per day is **367 ACFT** (Peak day, January 07, 2023 – **403 ACFT**; low day, January 30, 2023 – **318 ACFT**).

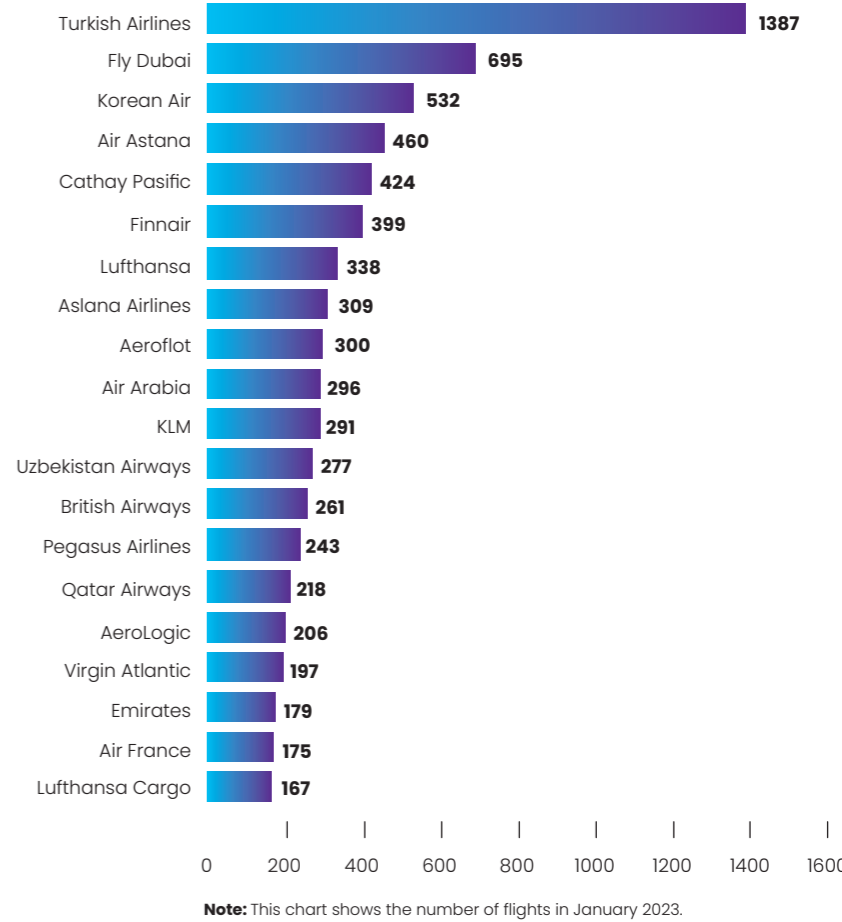
Comparison with January 2022 – **+180.2%**.



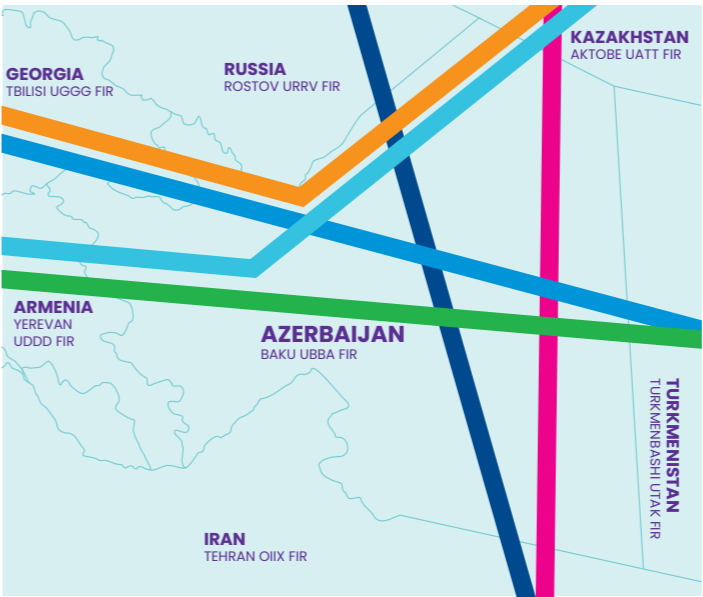
### 4.2 Traffic segments



### 4.3 Aircraft Operators – Top 20 Airspace Users



### 4.4 Air traffic flows – main overflight flows.



Georgia – Turkmenistan and v.v.	32% (3585 ACFT)
Georgia – Kazakhstan and v.v.	24% (2758 ACFT)
Iran – Russia and v.v.	6% (689 ACFT)
Turkmenistan – Armenia and v.v.	5% (612 ACFT)
Kazakhstan – Armenia and v.v.	7% (843 ACFT)
Iran – Kazakhstan and v.v.	16% (1777 ACFT)
Other directions (Total)	10% (1113 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.

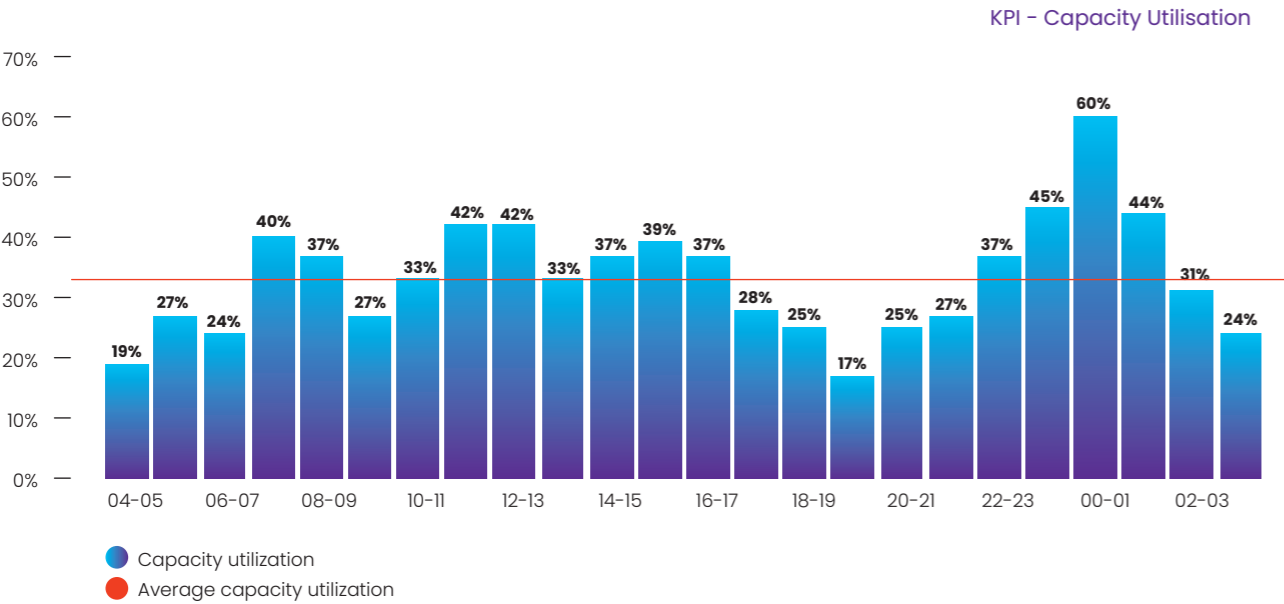
### 5.1 KPI – Capacity Utilization.

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											

Capacity Utilization January 2023 **33%**



### 5.2 KPI – Total Distance flown.

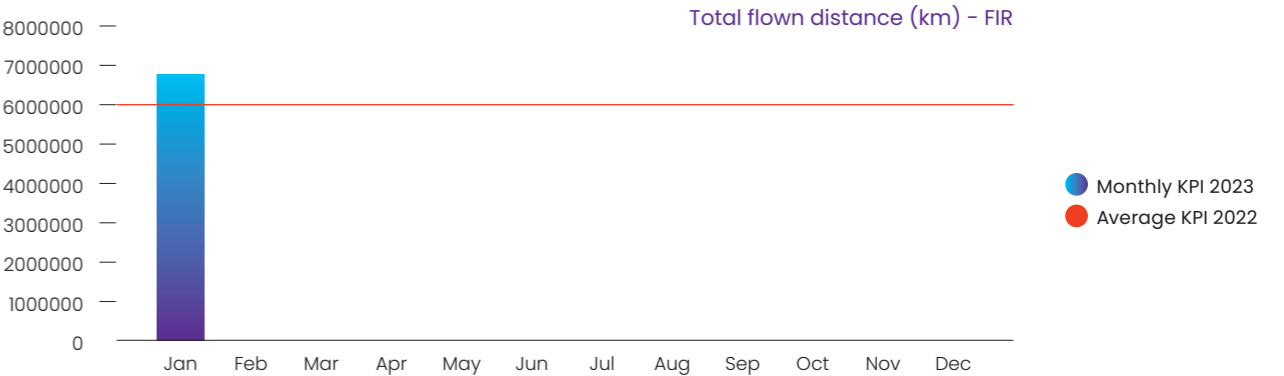
KPI-Flown distance is a total flown distance. KPI is km.

#### 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					

	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						

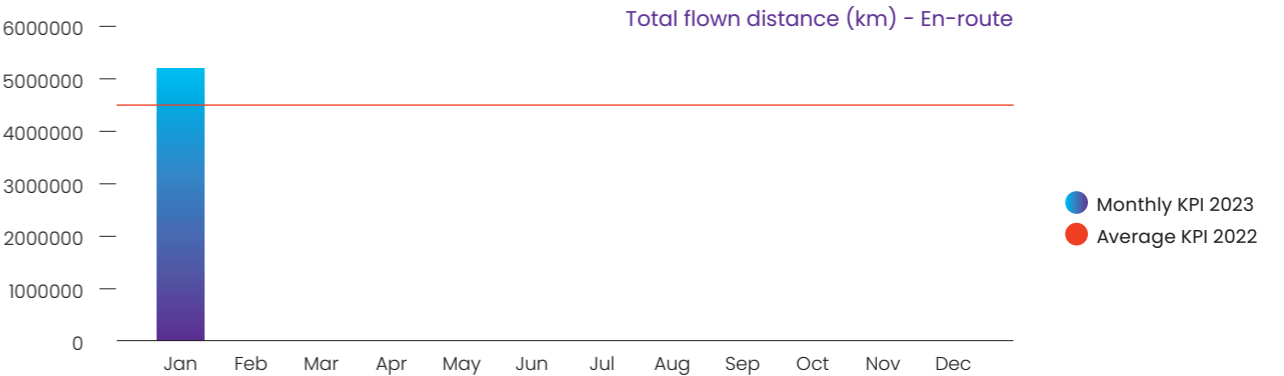


#### 5.2.2 KPI – Total Distance flown – En-route traffic.

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					

	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						



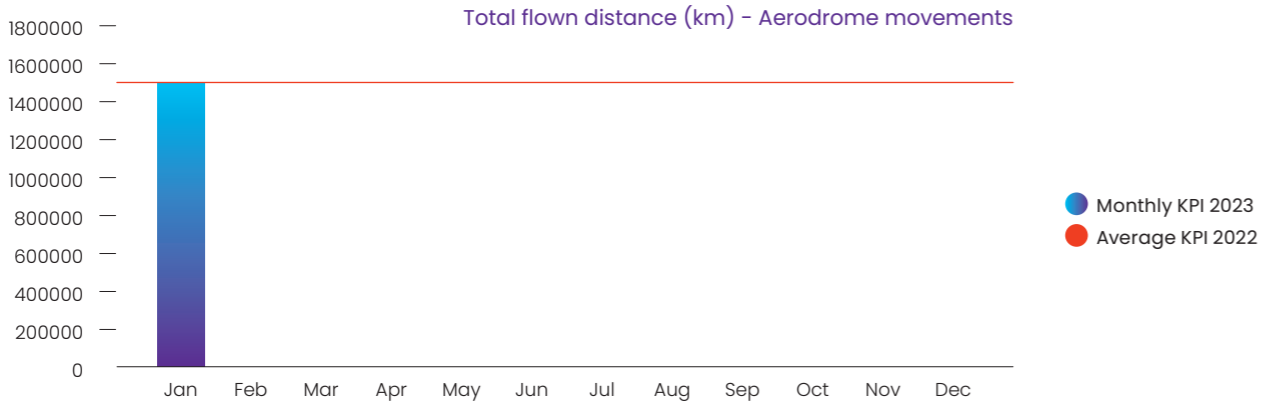


5.2.3 KPI – Total Distance flown – Aerodrome movements.

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					

	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

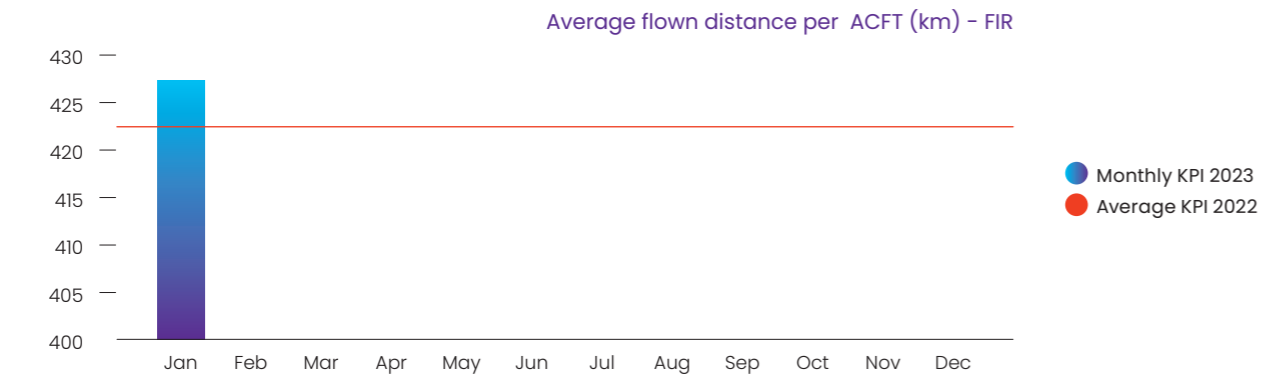
KPI- Average flown distance is calculation of average distance flown by ACFT by the following formula: the value of “total flown distance in kilometers” is divided by the value of “number of ACFT”. KPI is km/ACFT.

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											

KPI – Average flown distance (FIR) January 2023      **428 km/ACFT**

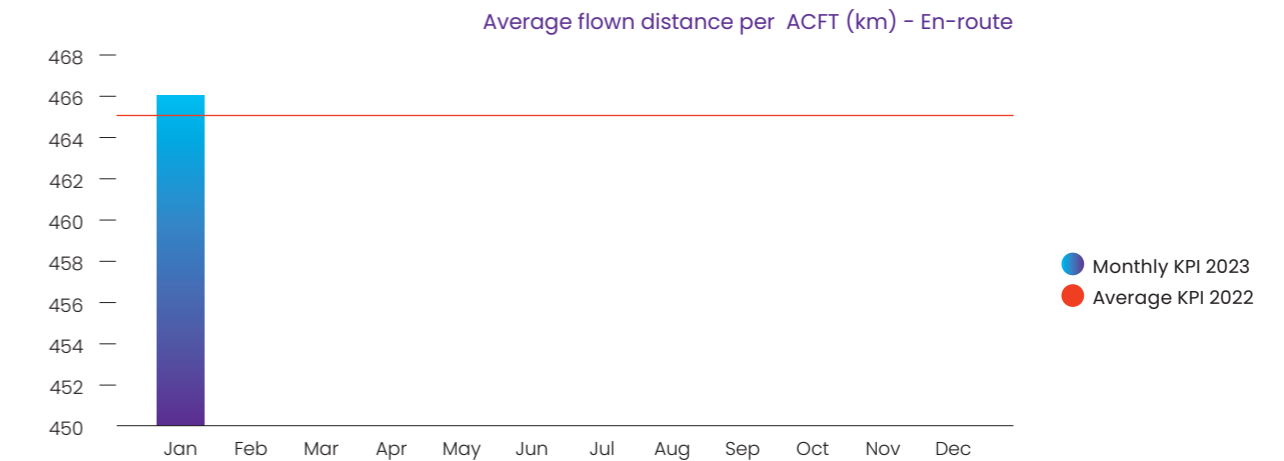


5.3.2 KPI – Average flown distance (ENR)

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											

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

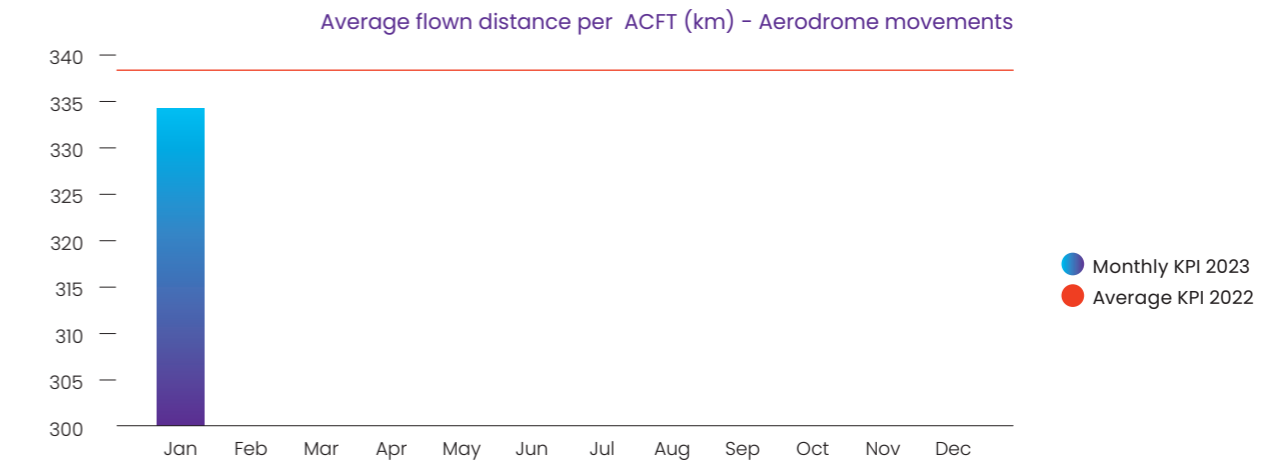


5.3.3 KPI- Average flown distance (AD)

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											

KPI – Average flown distance (AD) January 2023      **334 km/ACFT**



5.4 KPI –Total IFR/hours

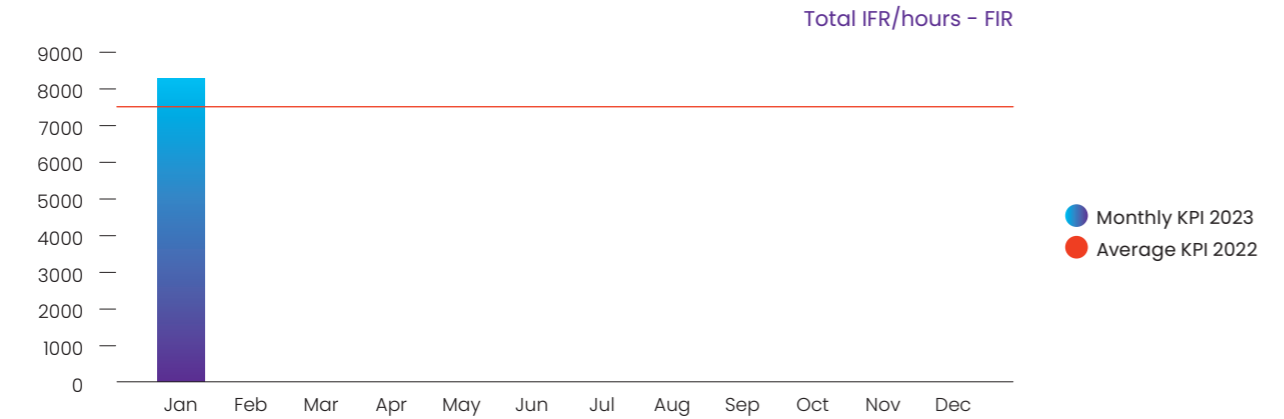
KPI- IFR/hours is a total flown IFR/hours. KPI is IFR/hours.

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											

KPI – Total IFR/hours (FIR) January 2023 **8388 IFR/hours**

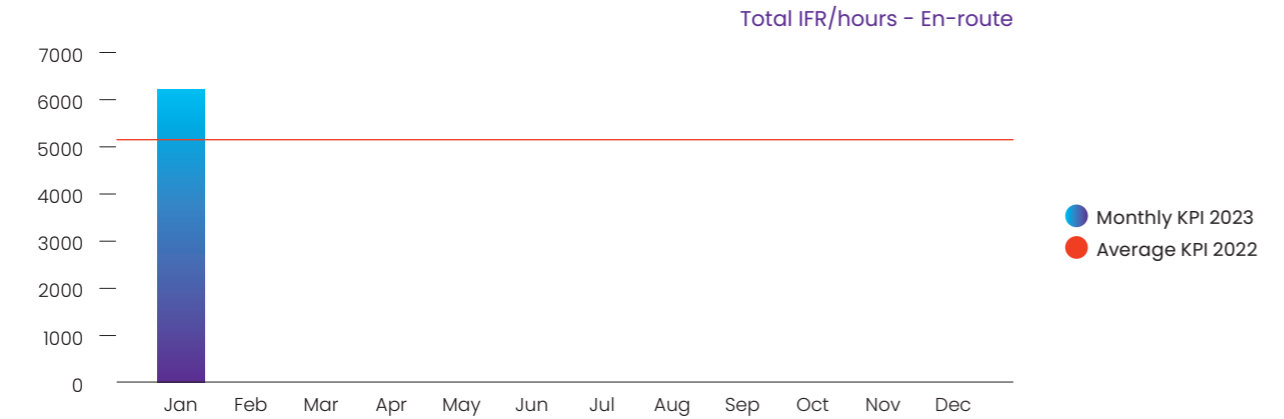


5.4.2 Total IFR/hours –Enroute

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											

KPI – Total IFR/hours (ENR) January 2023 **6147 IFR/hours**

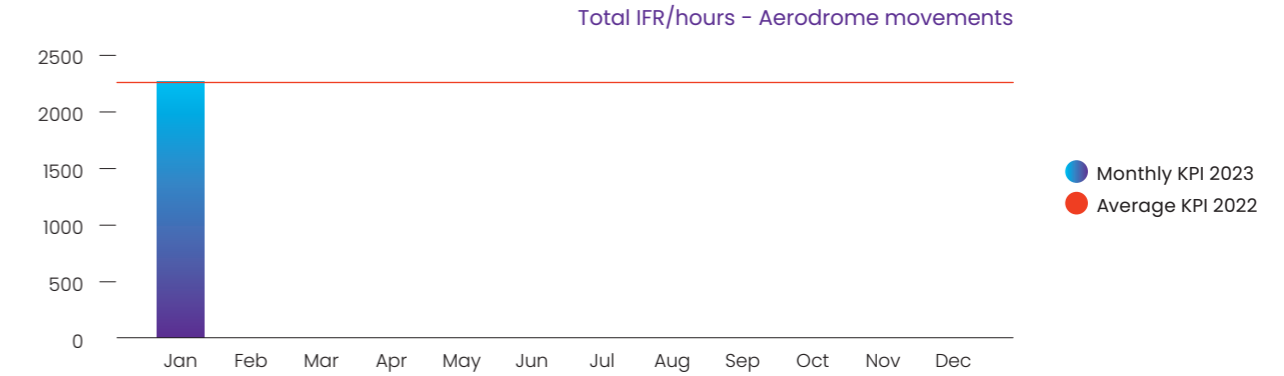


5.4.3 Total IFR/hours –Aerodrome movements

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											

KPI – Total IFR/hours (AD) January 2023 **2241 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.

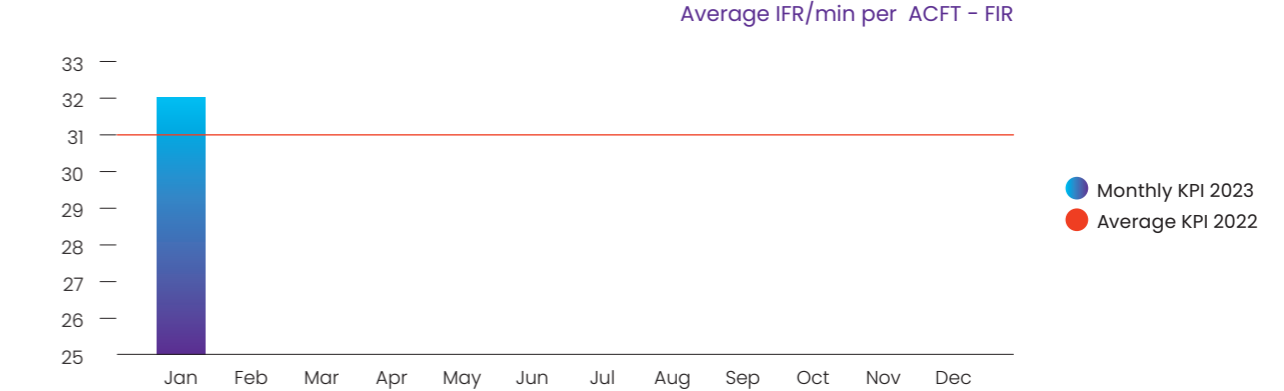
KPI – Average flown IFR/min per ACFT is calculation of average time flown by ACFT by the following formula: the value of “total flown time in minutes” is divided by the value of “number of ACFT”. KPI is min/ACFT.

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											

KPI – Average IFR/min per ACFT (FIR) January 2023 **32 min/ACFT**

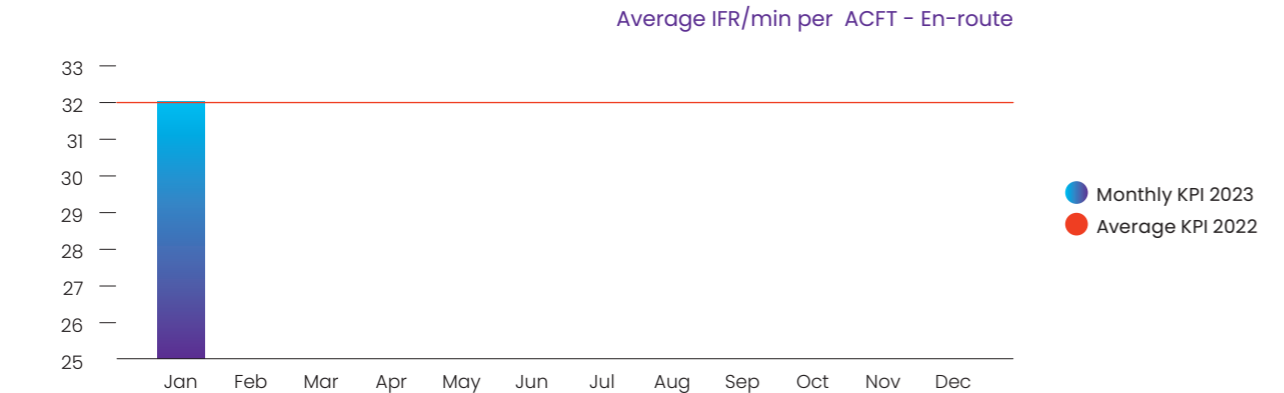


5.5.2 Average IFR/min per ACFT – En-route

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											

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

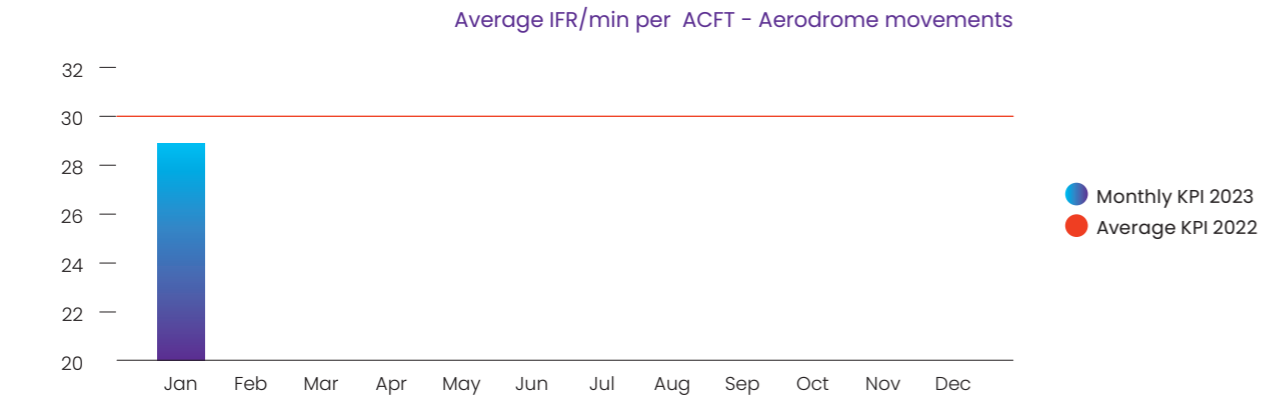


5.5.3 Average IFR/min per ACFT – Aerodrome movements

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											

KPI – Average IFR/min per ACFT (AD) January 2023      **29 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.

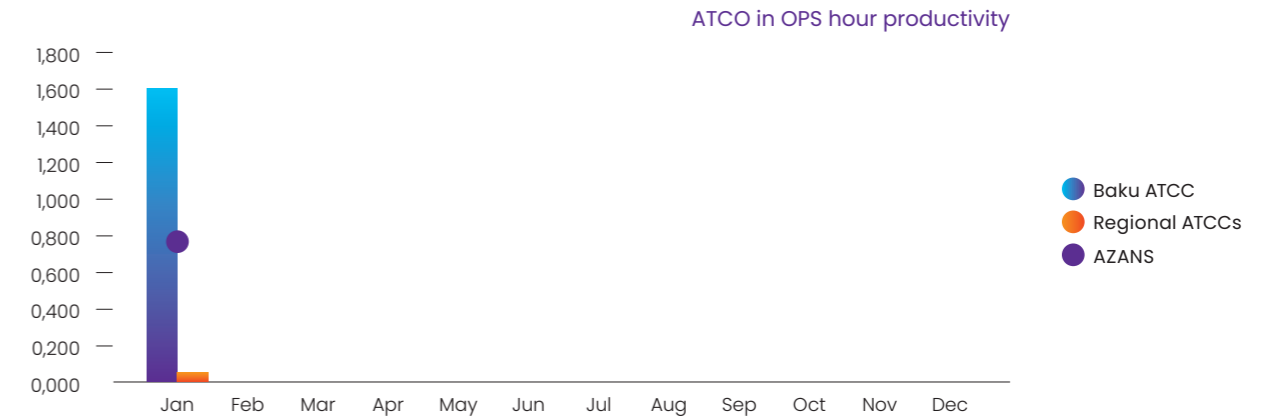
Furthermore, advances in technology are now focusing more than ever on reducing the workload of ATCOs in OPS to enable them to safely manage higher levels of traffic in a given volume of airspace. Training associated with the introduction of technology, however, can lead to short-term reductions in productivity.

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) January 2023	<b>0.764</b>
ATCO in OPS hour productivity (Baku ATCC) January 2023	<b>1.600</b>
ATCO in OPS hour productivity (Regional ATCCs) January 2023	<b>0.051</b>



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) January 2023	105.9
Working hours per ATCO in OPS (Baku ATCC) January 2023	85.4
Working hours per ATCO in OPS (Regional ATCCs) January 2023	142.2



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”

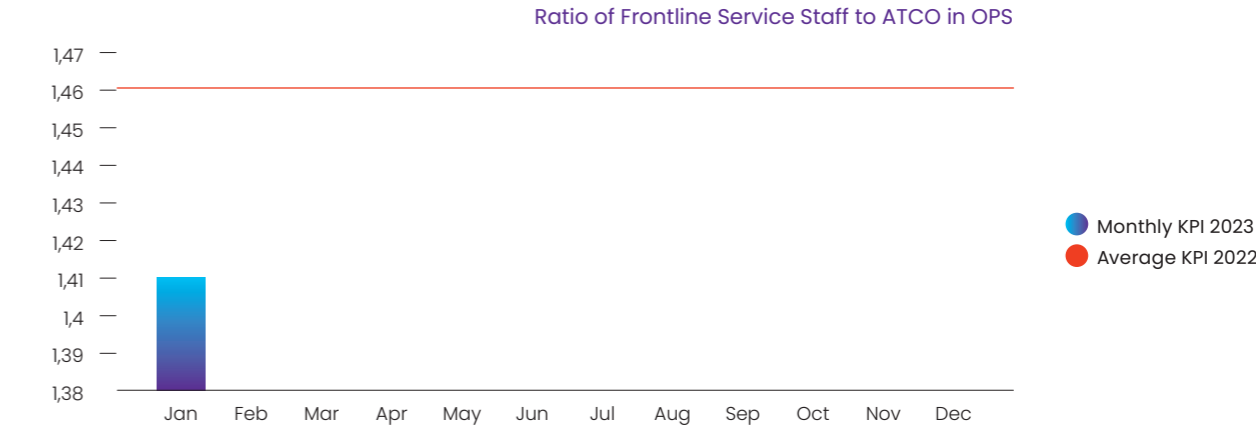
IFR hour per ATCO in OPS (AZANS) January 2023	46.3
IFR hour per ATCO in OPS (Baku ATCC) January 2023	68.3
IFR hour per ATCO in OPS (Regional ATCCs) January 2023	5.0



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 January 2023	1.41
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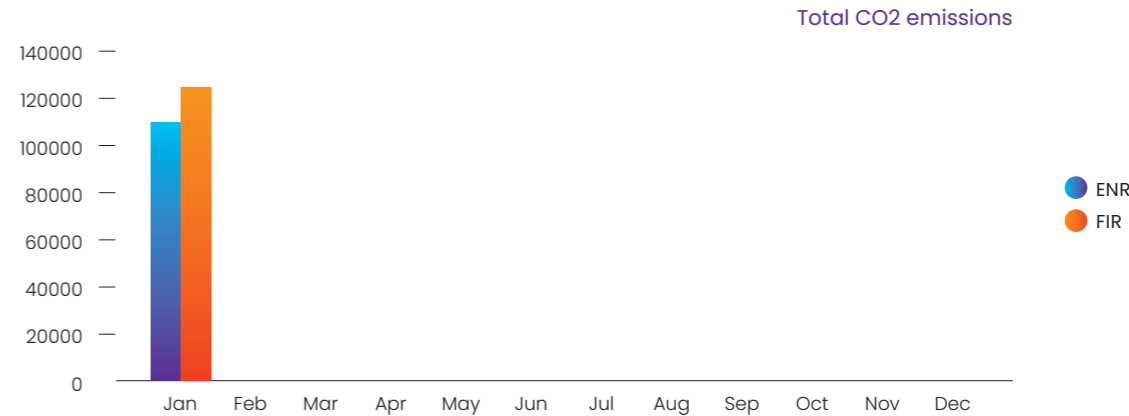


5.7 CO2 emissions

5.7.1 Total CO2 emissions

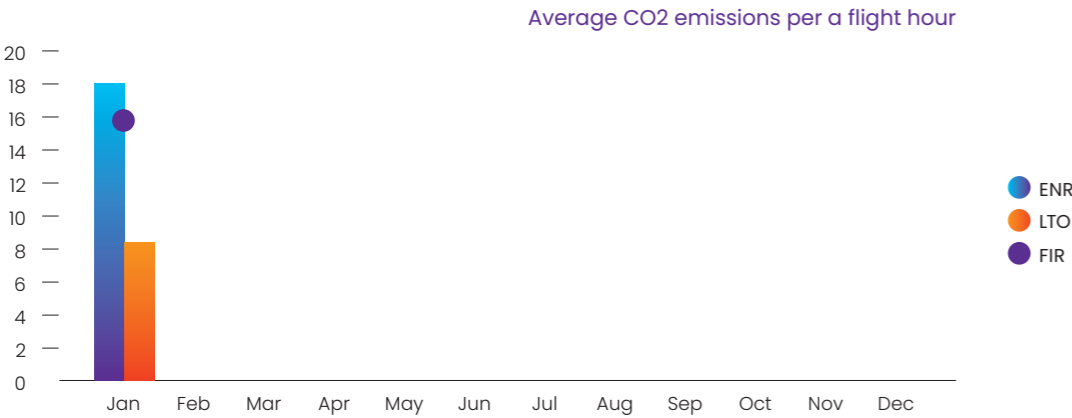
All the KPI’s for CO2 emissions are calculated for FIR, En-route (ENR) and Landing-take-off Operations (LTO).

Total CO2 emissions (FIR) January 2023	128 809 tons
Total CO2 emissions (ENR) January 2023	110 226 tons
Total CO2 emissions (LTO) January 2023	18 583 tons



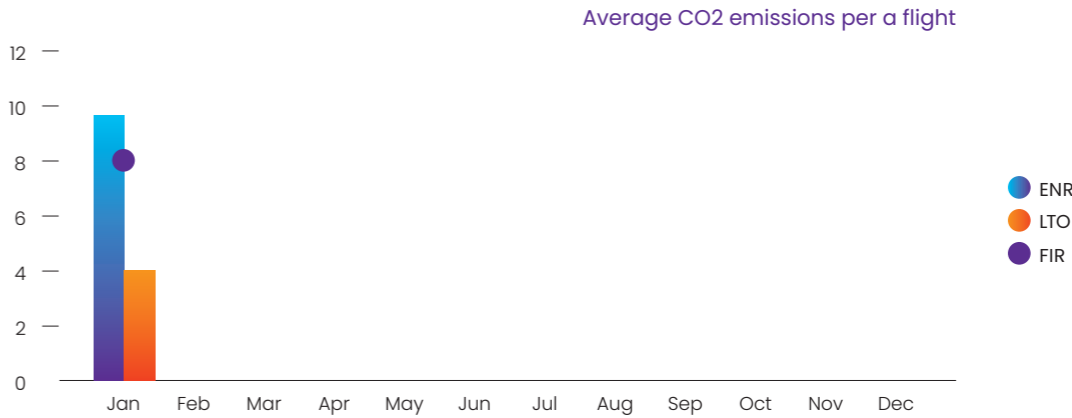
5.7.2 CO2 emissions per a flight hour

CO2 emissions per a flight hour (FIR) January 2023	15.4 ton/hour
CO2 emissions per a flight hour (ENR) January 2023	17.9 ton/hour
CO2 emissions per a flight hour (LTO) January 2023	8.3 ton/hour



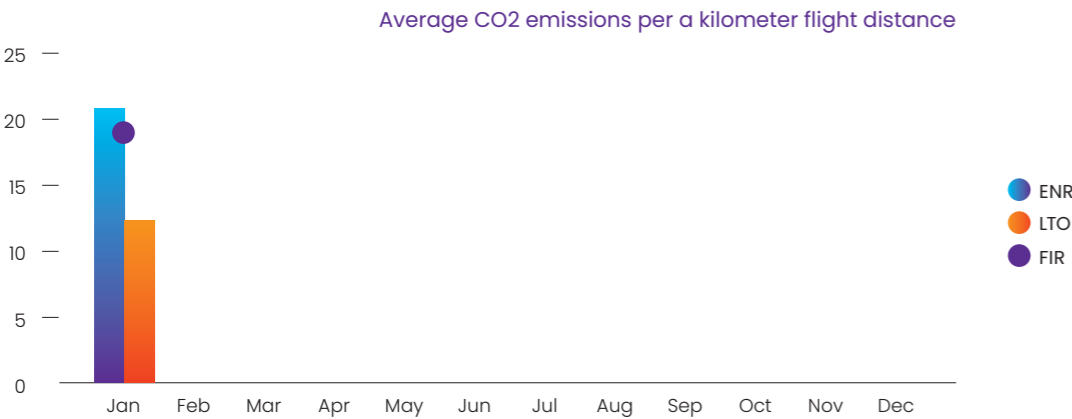
5.7.4 CO2 emissions per a flight

CO2 emissions per a flight (FIR) January 2023	8.1 ton/flight
CO2 emissions per a flight (ENR) January 2023	9.7 ton/flight
CO2 emissions per a flight (AD) January 2023	4.1 ton/flight



5.7.3 CO2 emissions per a kilometer flight distance

CO2 emissions per a kilometer flight distance (FIR) January 2023	19 kg/km
CO2 emissions per a kilometer flight distance (ENR) January 2023	21 kg/km
CO2 emissions per a kilometer flight distance (LTO) January 2023	12 kg/km

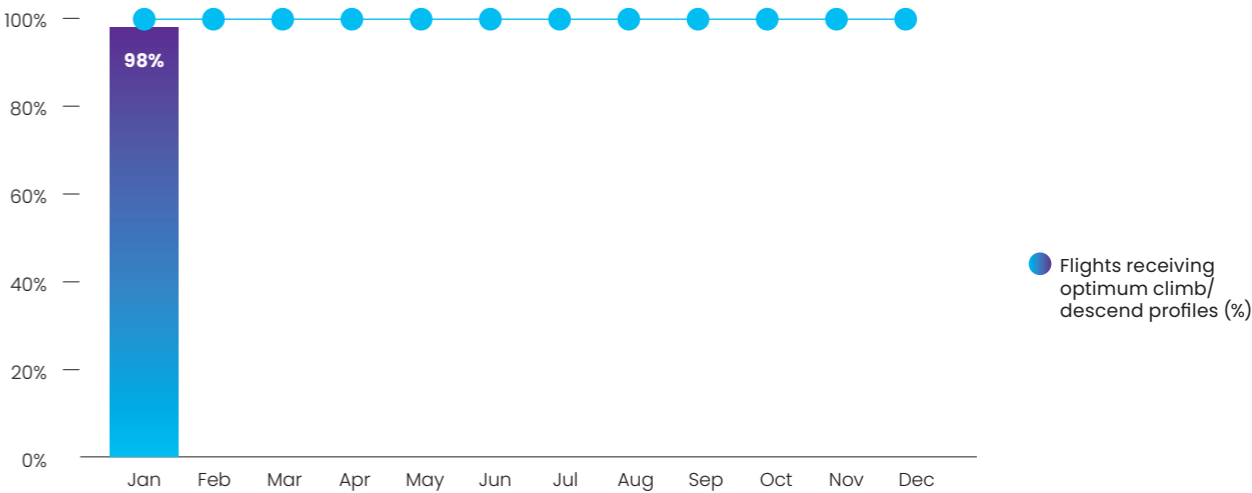


5.8 KPI – CCO/CDO operations

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 January 2023 98%

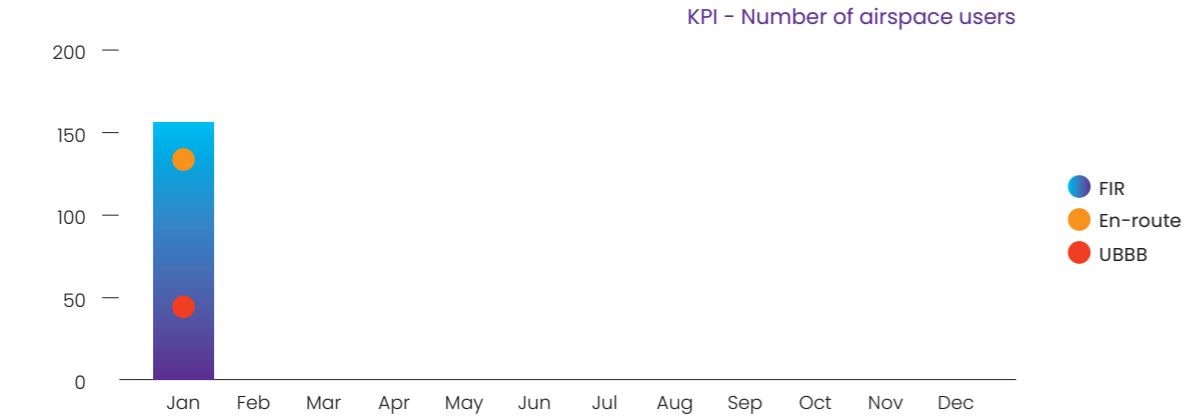


5.9 KPI – Number of airspace users

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) January 2023      **159 Airlines**  
KPI – Number of airspace users (ENR) January 2023      **146 Airlines**  
KPI – Number of airspace users (AD) January 2023      **44 Airlines**



**AIR TRAFFIC DEPARTMENT**  
**AZERAERONAVIGATION**

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