# Air Traffic Statistics Report

**March 2023**

AZERAERONAVIGATION

# Content

AZERAERONAVIGATION

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

## 1.1 General Air Traffic Statistics Data

**18054** acft

The number of IFR movements within Baku recorded in March

**582** acft

Average number of IFR movements per day

**+45.9** %

Comparison with March 2022

The number of IFR movements within Baku FIR recorded in March is **18054 ACFT.**

Average number of IFR movements per day is **582 ACFT** (Peak day, March 25, 2023 – **642 ACFT**; low day, March 27, 2023 – **521 ACFT**).
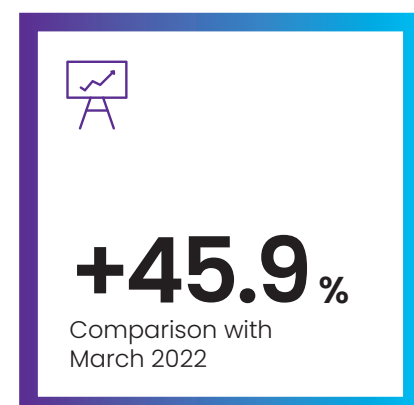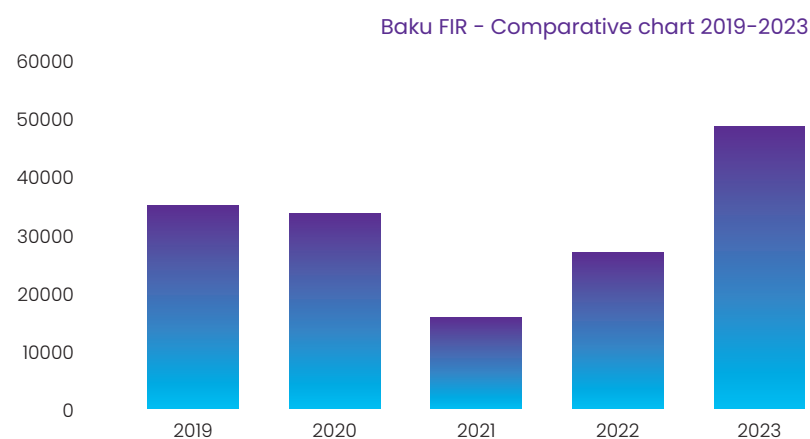
Comparison with March 2022 – **+45.9%.**

Baku FIR



● 2022   ● 2023
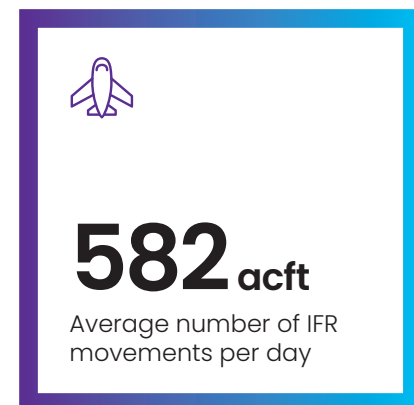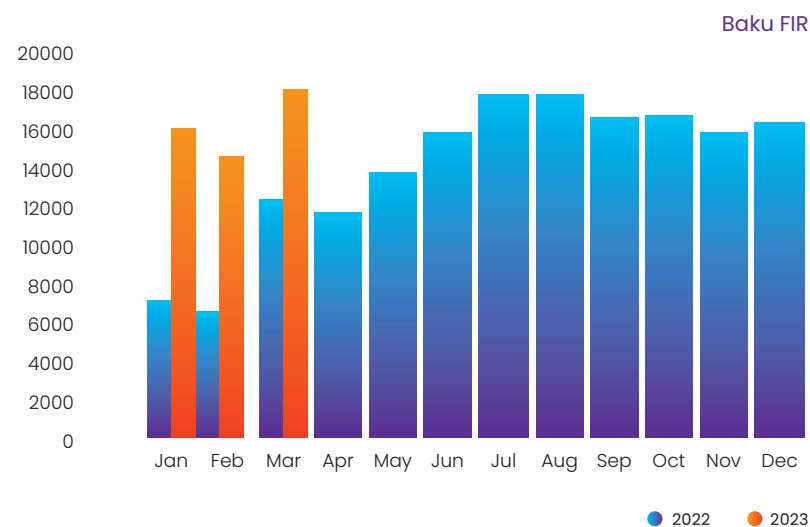
The number of IFR movements within Baku FIR recorded for three months 2023 is **48595 ACFT.**

Average number of IFR movements per day is **540 ACFT.**

Comparison with the same period of 2022 – **+83.9%.**

Baku FIR - Comparative chart 2019-2023



## 1.2 Traffic Segments

1.2.1 The number of IFR movements within Baku FIR recorded in March is **18054 ACFT**, where **12821 ACFT** are overflight traffic and **5233 ACFT** are aerodrome movements.
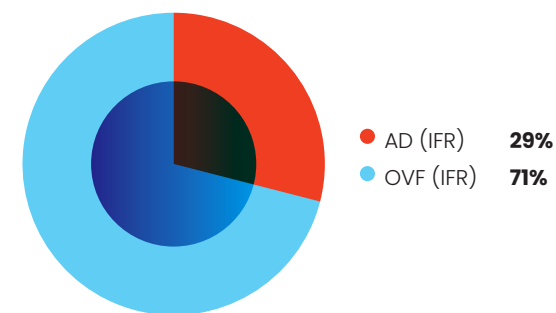
1.2.2 Total number of movements within Baku FIR recorded in March is **19036 ACFT**, where **18054 ACFT** are IFR movements and **982 ACFT** are VFR movements.

Average number of movements per day is **614 ACFT.**

Comparison with March 2022 – **+40.1%.**



● AD (IFR)   **29%**
● OVF (IFR)   **71%**



● VFR   **5%**
● IFR   **95%**
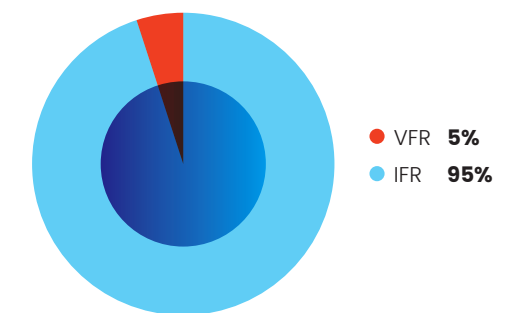
## 1.3 Capacity vs traffic demand

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

Peak hour (March average data):
| | |
|---|---|
| 00:00-01:00 | **44 ACFT** |
| 01:00-02:00 | **36 ACFT** |
| 23:00-00:00 | **33 ACFT** |
| 7:00-8:00 | **30 ACFT** |
| 11:00-12:00 | **30 ACFT** |

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



● Average hourly traffic      ● Highest traffic recorded      ● Capacity
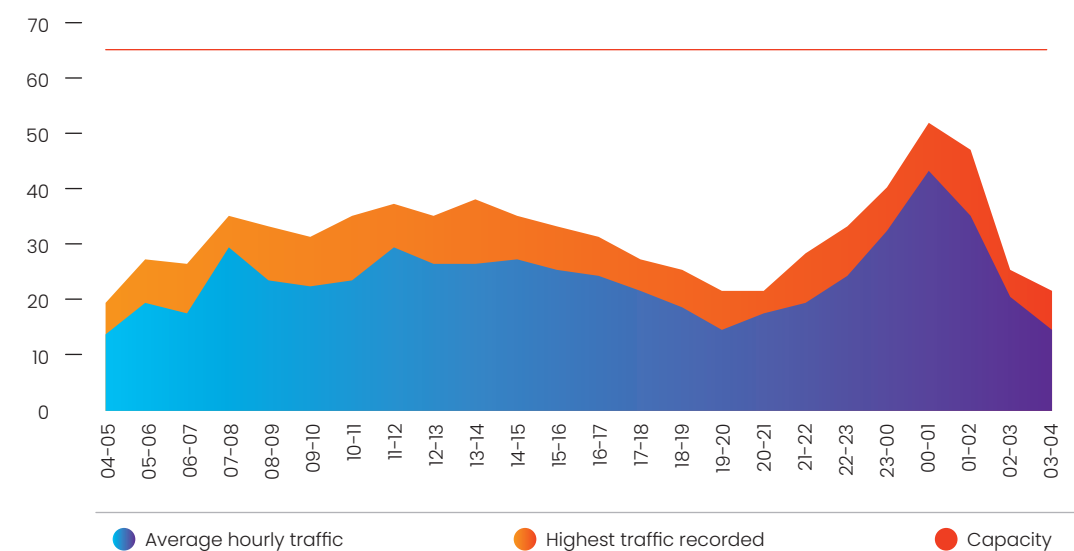
# 2 | Aerodrome Movements Statistics Data

## 2.1 Heydar Aliyev International airport

**5051** acft

The number of IFR movements within Baku recorded in March

**163** acft

Average number of IFR movements per day

**+35.6** %

Comparison with March 2022
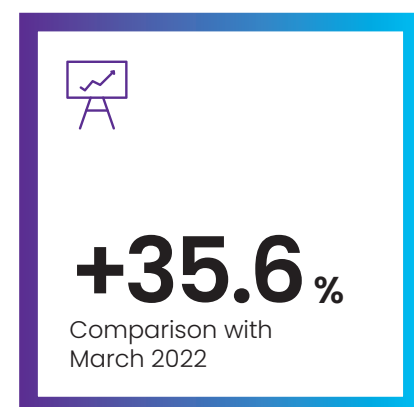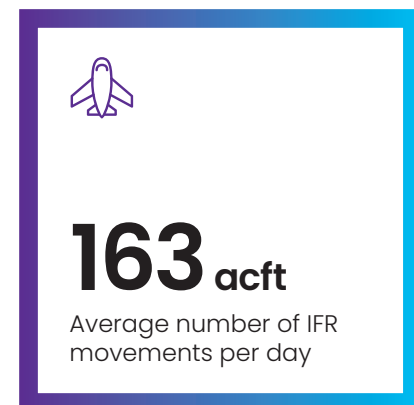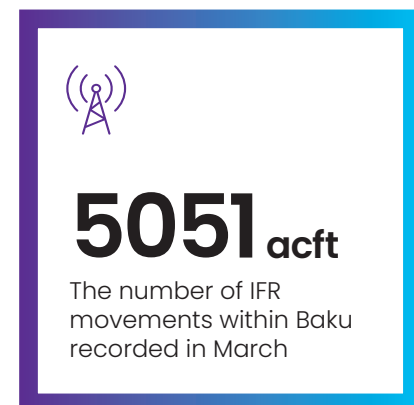
Total number of movements at Baku/Heydar Intl' Aliyev airport recorded in March is **5051 ACFT.**

Average number of movements per day is **163 ACFT** (Peak day, March 25, 2023 – **180 ACFT**; low day, March 06, 2023 – **142 ACFT**).

Comparison with March 2022 – **+35.6%.**

### UBBB - Baku/Heydar Aliyev

● 2022　● 2023
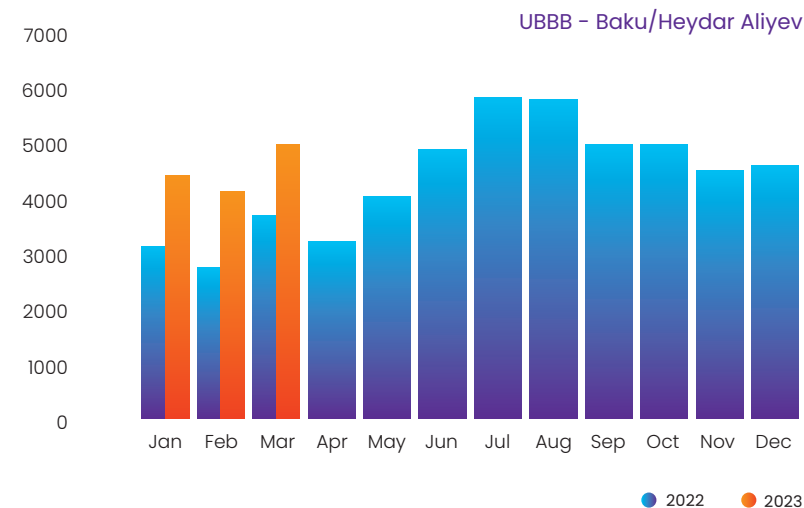
### 2.1.2 Comparative chart 2019 – 2023

The number of movements at Baku/Heydar Intl' Aliyev airport recorded for three months 2023 is **13563 ACFT.**

Average number of movements per day is **151 ACFT.**

Comparison with the same period of 2022 – **+41.1%.**

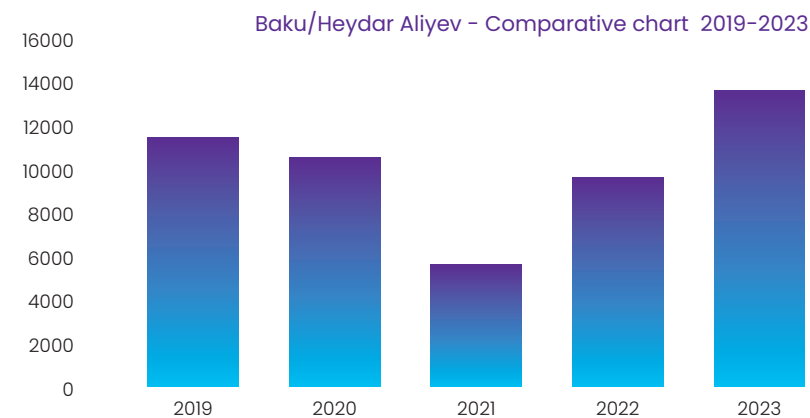### Baku/Heydar Aliyev - Comparative chart 2019-2023

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

#### Baku/Heydar Aliyev Departure Flows

RASAM 23% (570 ACFT)
EKRAM 18% (455 ACFT)
BETEK 5% (134 ACFT)
NAMAS 11% (267 ACFT)
AGDAM 19% (492 ACFT)
GILAB 8% (213 ACFT)
BAMAK 16% (394 ACFT)

### 2.1.4 Air traffic flows – Load of STARs

#### Baku/Heydar Aliyev Arrival Flows

NOBVA 2% (46 ACFT)
ROPKA 23% (572 ACFT)
ERLEV 24% (616 ACFT)
AMOKU 1% (30 ACFT)
ABROL 7% (168 ACFT)
MOSUM 12% (302 ACFT)
INSAN 28% (697 ACFT)
KUPAT 3% (90 ACFT)

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

**Take-off**
RWY 16/34　**43% (1083 ACFT)**
RWY 17/35　**57% (1443 ACFT)**

**Landing**
RWY 16/34　**53% (1329 ACFT)**
RWY 17/35　**47% (1192 ACFT)**

**Total**
RWY 16/34　**48% (2412 ACFT)**
RWY 17/35　**52% (2635 ACFT)**

### 2.1.6 Types of flights

● Passanger　**75%**　● Cargo　**20%**
● Business　**4%**　● Other　**1%**
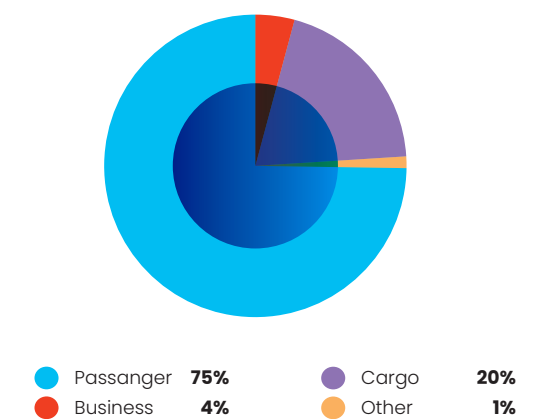
### 2.1.7 Passenger flights (Budget/low-cost vs classic)

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.**

● Low-cost　**29%**
● Classic　**71%**

## 2.1.8 Aircraft Operators – Top 10 Airspace Users

| Airline | Value |
|---|---|
| Azerbaijan Airlines | 1382 |
| Buta Airways | 590 |
| Silkway West Airlines | 583 |
| Turkish Airlines | 375 |
| Cargolux | 201 |
| Aeroflot | 190 |
| Azimuth Airlines | 174 |
| UTair | 172 |
| Fly Dubai | 160 |
| Flynas | 116 |

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

## 2.1.9 Aircraft Operators – Airlines of Azerbaijan vs international airlines

- International Airlines **46%**
- Airlines of Azerbaijan **54%**
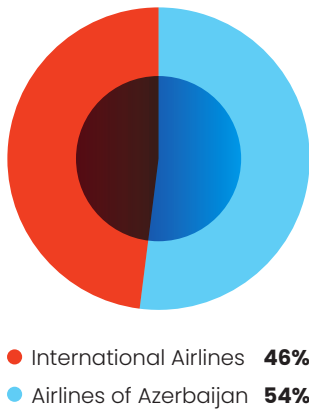
## 2.1.10 Traffic segments – Domestic vs International
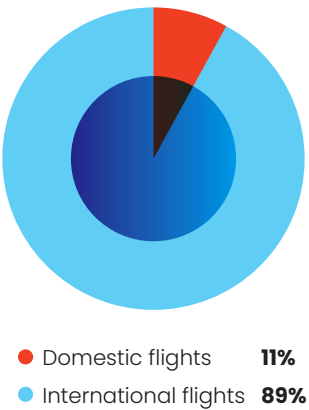
- Domestic flights **11%**
- International flights **89%**

## 2.2 Nakhchivan International airport

**534** acft
The number of IFR movements within Baku recorded in March
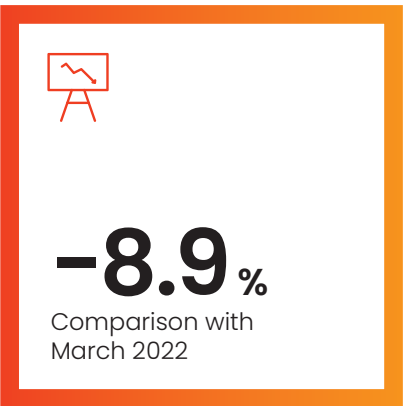
Total number of movements at Nakhchivan International airport recorded in March is **534 ACFT.** Average number of movements per day is **18 ACFT.**

Comparison with March 2022 – **–8.9%.**
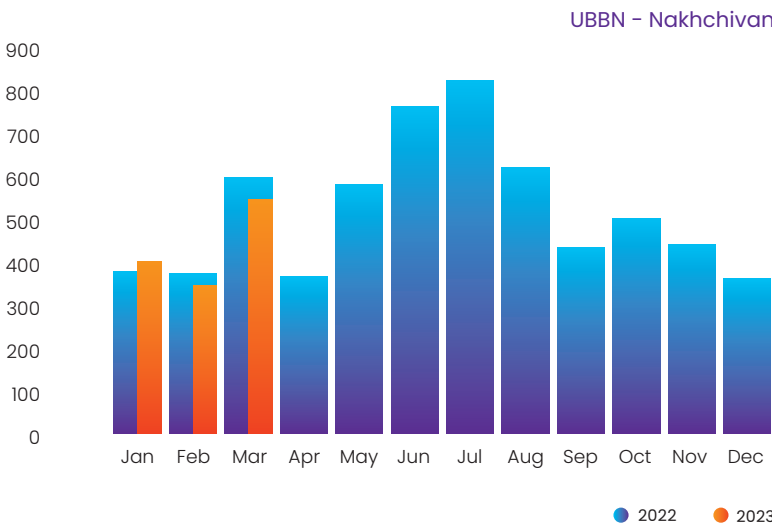
UBBN – Nakhchivan

2022 2023
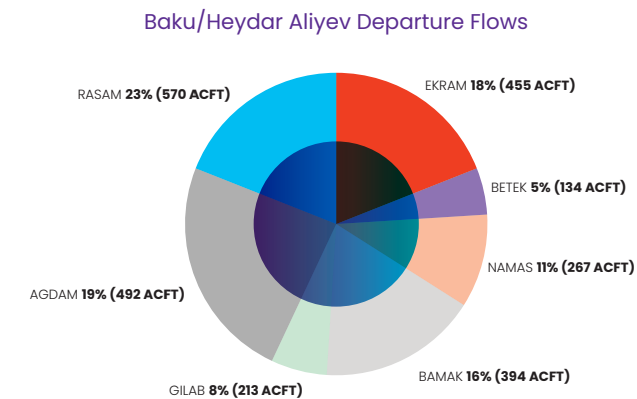
**18** acft
Average number of IFR movements per day

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

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

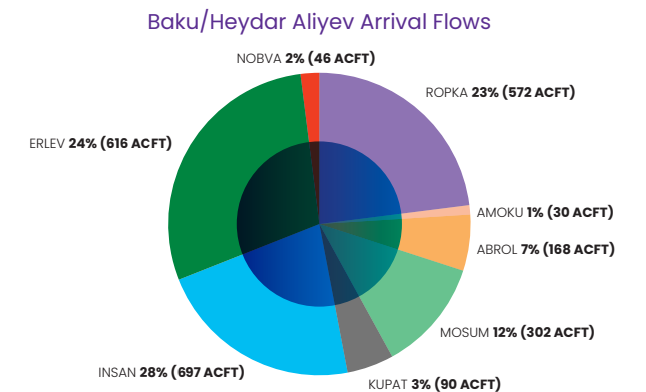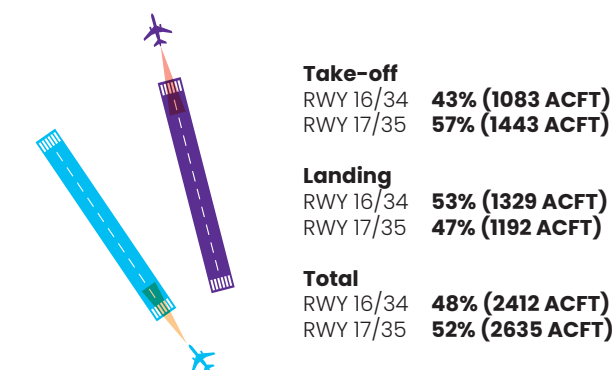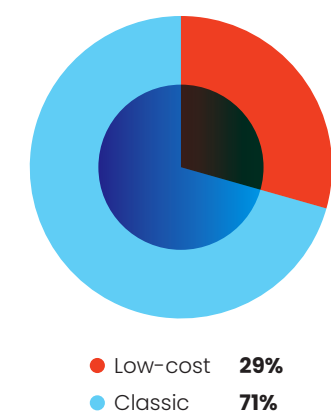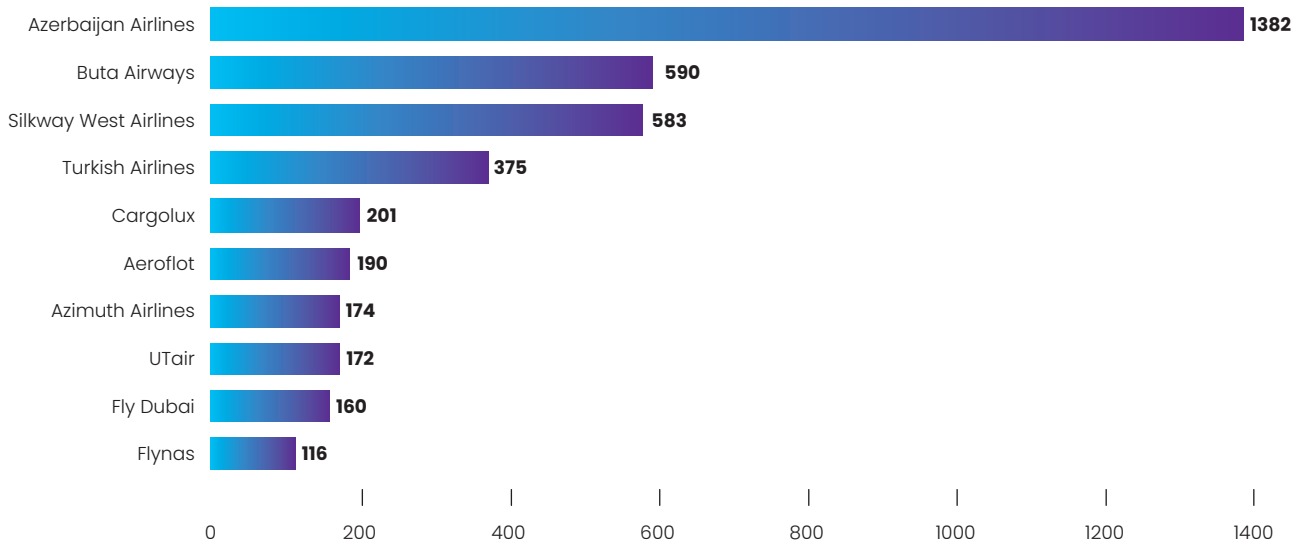Comparison with the same period of 2022 – **–4.5%.**

**–8.9** %
Comparison with March 2022

Nakhchivan (UBBN) - Comparative chart 2019 - 2023

## 2.3 Ganja International airport

**161** acft

The number of IFR movements within Baku recorded in March

**6** acft

Average number of IFR movements per day

**+198.1** %

Comparison with March 2022

Total number of movements at Ganja International airport recorded in March is **161 ACFT.**

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

Comparison with March 2022 – **+198.1%.**

### UBBG - Ganja



● 2022   ● 2023

The number of movements at Ganja International airport recorded for three months 2023 is **430 ACFT.**

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

Comparison with the same period of 2022 – **+167.1%.**

### Ganja (UBBG) - Comparative chart 2019-2023



## 2.4 Gabala International airport

**16** acft

The number of IFR movements within Baku recorded in March

**0.5**

Average number of IFR movements per day

**+60.0** %

Comparison with March 2022

Total number of movements at Gabala International airport recorded in March is **16 ACFT.**

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

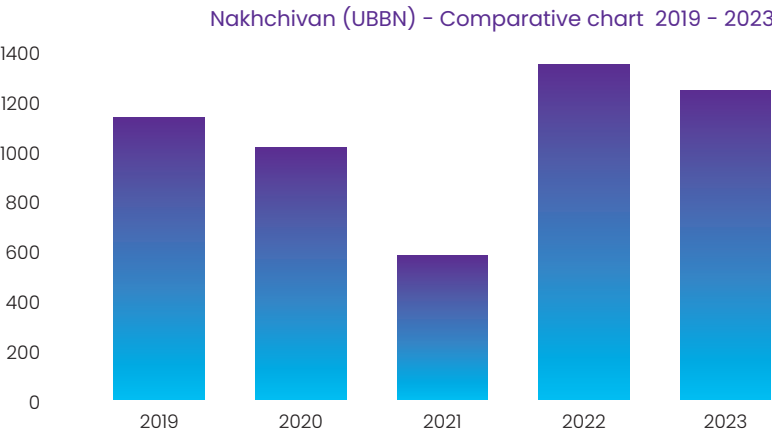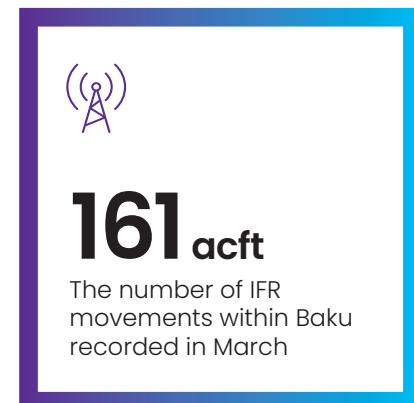Comparison with March 2022 – **+60.0%.**

### UBBQ - Gabala



● 2022   ● 2023

The number of movements at Gabala International airport recorded for three months 2023 is **58 ACFT.**

Average number of movements per day is **0.6.**
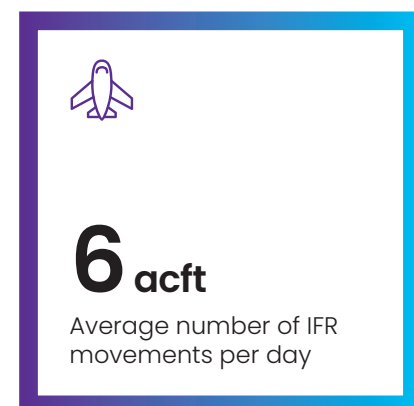
Comparison with the same period of 2022 – **−3.3%.**

### Gabala (UBBQ) - Comparative chart 2019 - 2023

## 2.5 Lenkoran International airport

**20** acft

The number of IFR movements within Baku recorded in March

**0.7**

Average number of IFR movements per day

**+400.0** %

Comparison with March 2022

Total number of movements at Lenkoran International airport recorded in March is **20 ACFT.**

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

Comparison with March 2022 – **+400.0%.**
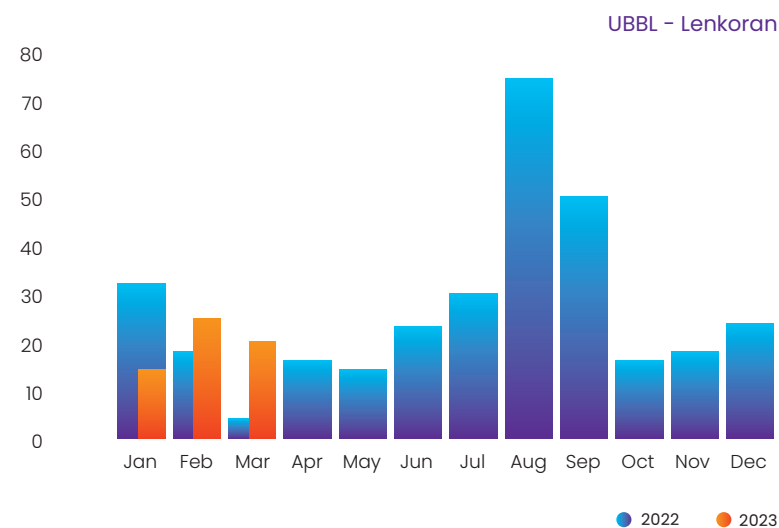
UBBL - Lenkoran



● 2022   ● 2023

The number of movements at Lenkoran International airport recorded for three months 2023 is **58 ACFT.**

Average number of movements per day is **0.6.**
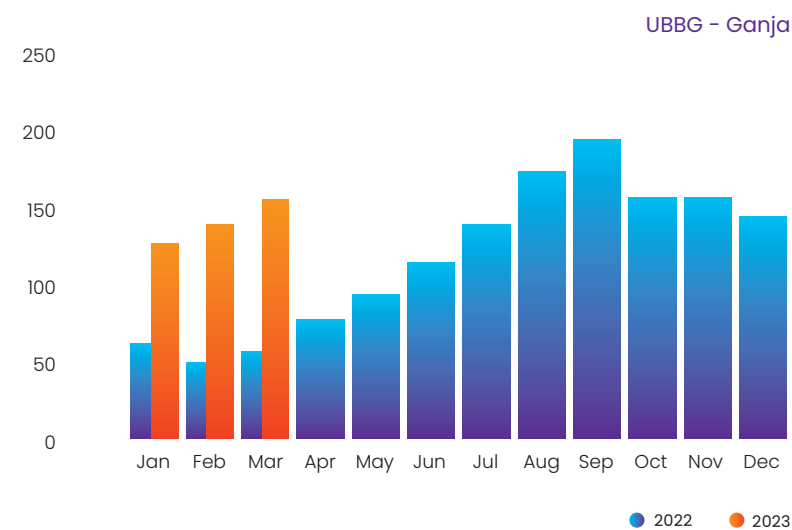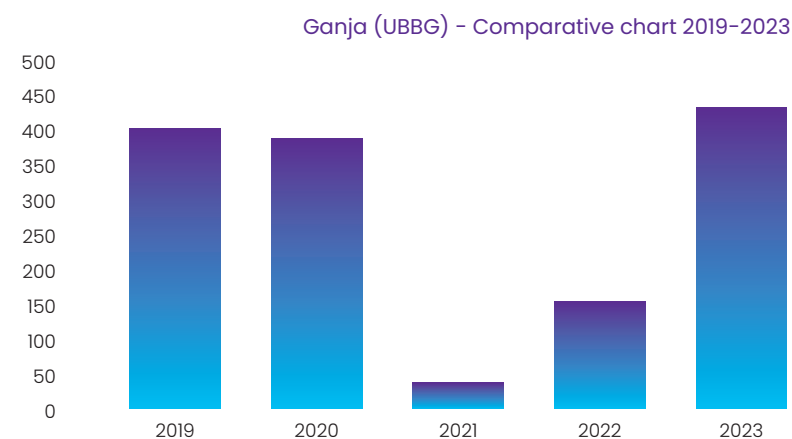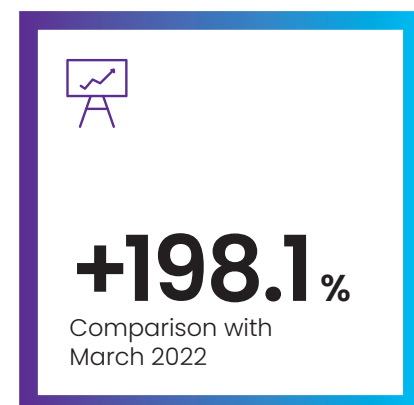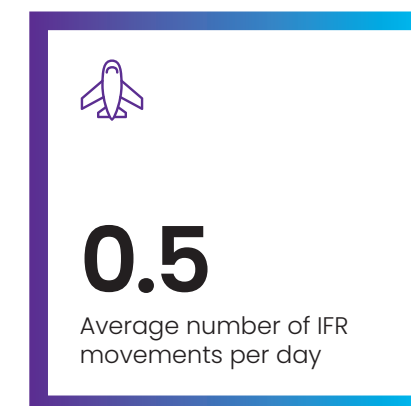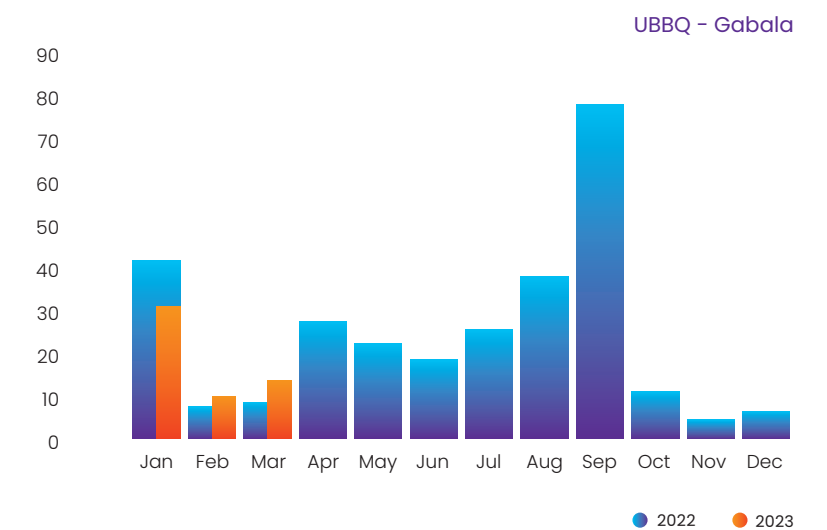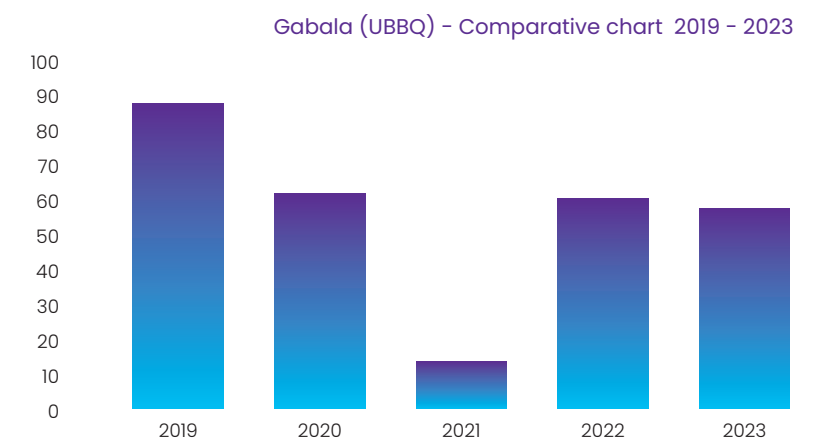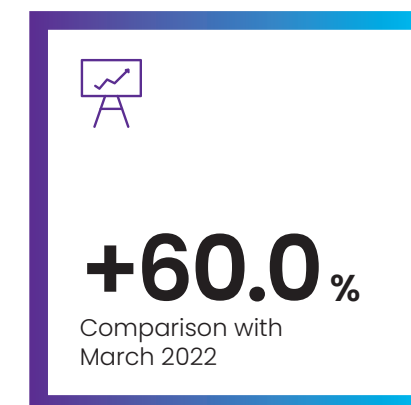
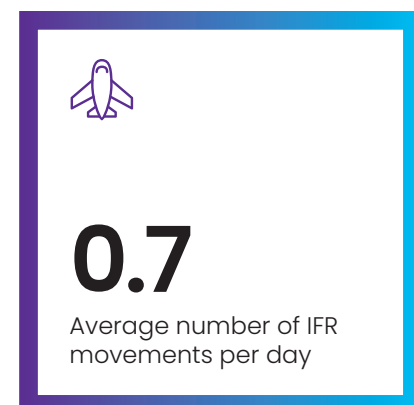Comparison with the same period of 2022 – **+7.4%.**

Lenkoran (UBBL) - Comparative chart  2019 - 2023
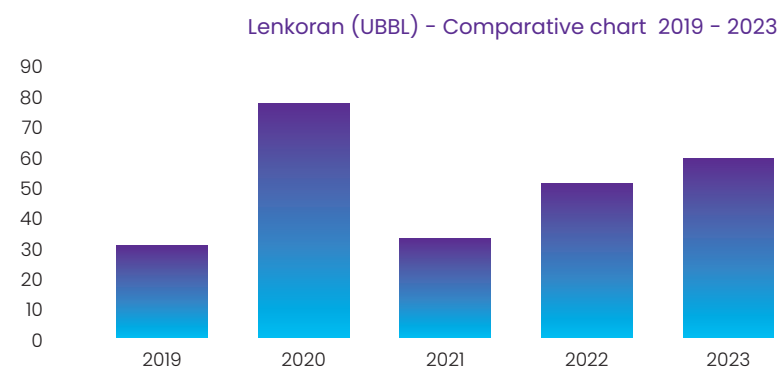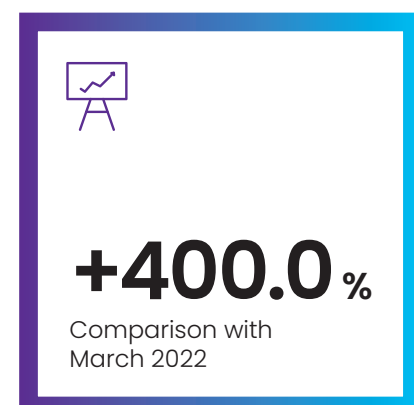


### 2.6 Fuzuli International airport.
Total number of movements - **6 ACFT**
Average number of movements per day – **0.2**

### 2.7 Zagatala International airport.
No movements were recorded

### 2.8 Zangilan International airport.
No movements were recorded

### 2.9 Yevlakh airport.
Total number of movements - **2 ACFT**
Average number of movements per day – **0.1**

# 3 | VFR Movements Statistics data

## 3.1 Baku/Zabrat airport

**680** acft

The number of IFR movements within Baku recorded in March

**22** acft

Average number of IFR movements per day

**−24.4** %

Comparison with March 2022
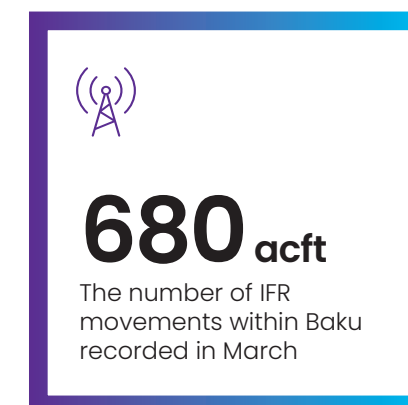
Total number of VFR movements at Baku/Zabrat airport recorded in March is **680 ACFT.**

Average number of movements per day is **22 ACFT**

Comparison with March 2022 – **−24.4%.**

UBTT - Baku/Zabrat



● 2022   ● 2023
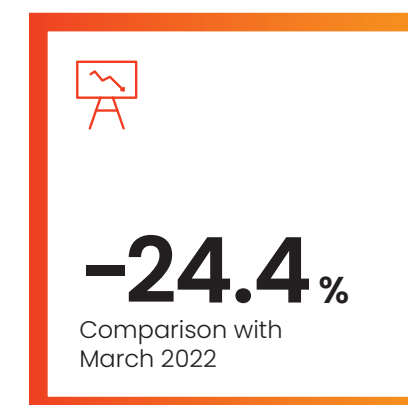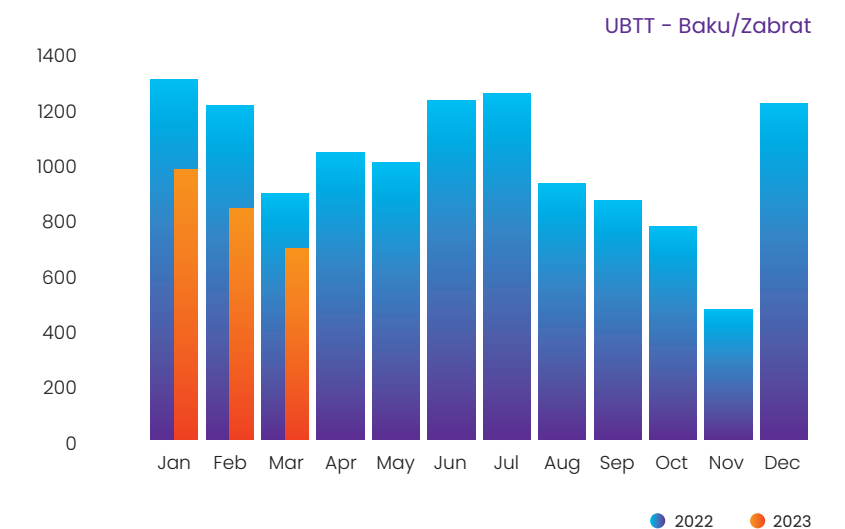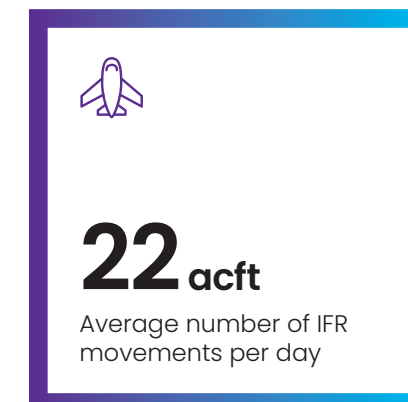
The Baku/Zabrat aerodrome is the base of training flights for student pilots of the National Aviation Academy. The student pilot training program includes en-route flight training and training maneuvers (take-off, landing, go-around) on the Cessna-172 aircraft



● Cessna172   **228 flights**   **34%**
● Helicopters   **452 flights**   **66%**

**368** acft

The number of IFR movements within Baku recorded in March

**12** acft

Average number of IFR movements per day

**no change**

Comparison with March 2022

### 3.2 Pirallahi heliport

Total number of VFR movements at Pirallahi heliport recorded in March is **368 ACFT.**

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

Comparison with March 2022 − **no change.**

Pirallahi

● 2022  ● 2023
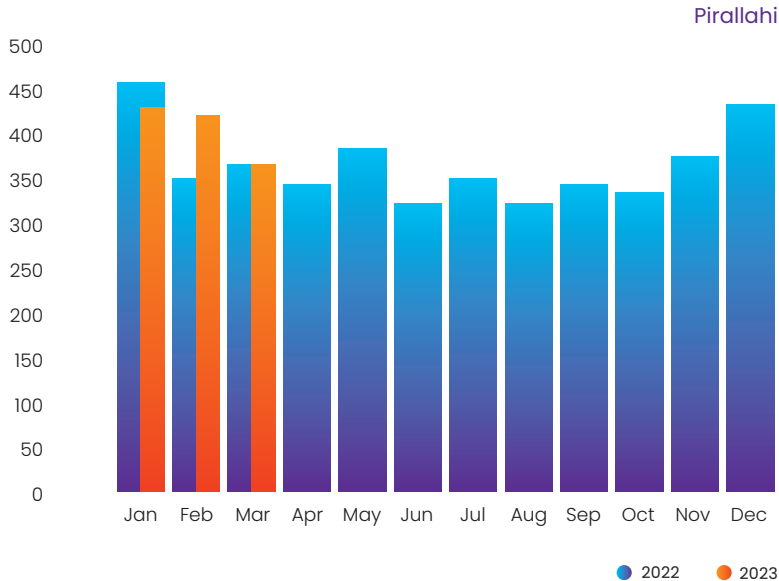
**130** acft

The number of IFR movements within Baku recorded in March

**5** acft

Average number of IFR movements per day

**−50.8** %

Comparison with March 2022

### 3.4 Neft Dashlari heliport

Total number of VFR movements at Neft Dashlari heliport recorded in March is **130 ACFT.**

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

Comparison with March 2022 − **−50.8%.**

Neft Dashlari

● 2022  ● 2023
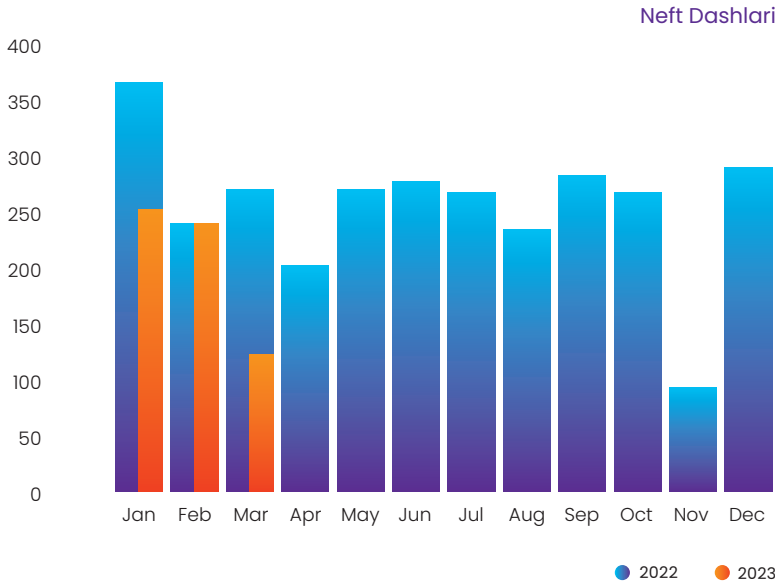
**292** acft

The number of IFR movements within Baku recorded in March

**10** acft

Average number of IFR movements per day

**+29.5** %

Comparison with March 2022

### 3.3 Chilov heliport
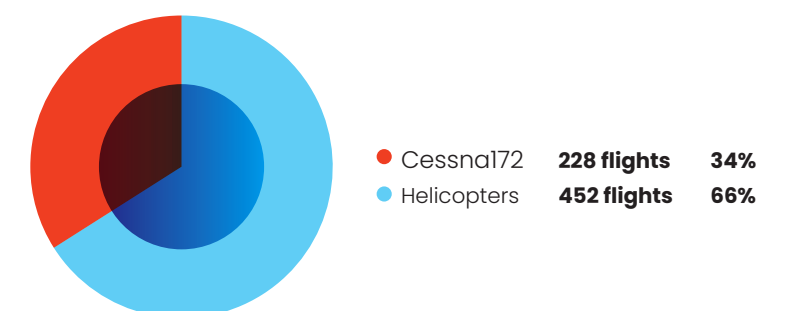
Total number of VFR movements at Chilov heliport recorded in March is **292 ACFT.**

Average number of movements per day is **10 ACFT**

Comparison with March 2022 − **+29.5%.**

Chilov

● 2022  ● 2023
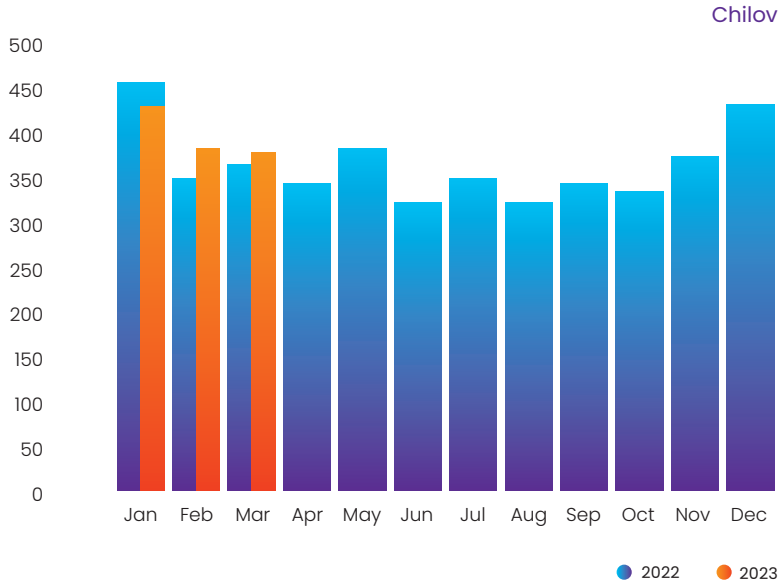
**232** acft

The number of IFR movements within Baku recorded in March

**8** acft

Average number of IFR movements per day

**+5.0** %

Comparison with March 2022

### 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 March is **232 ACFT.**

Average number of movements per day is **8 ACFT**

Comparison with March 2022 − **+5.0%.**

Caspian Sea

● 2022  ● 2023
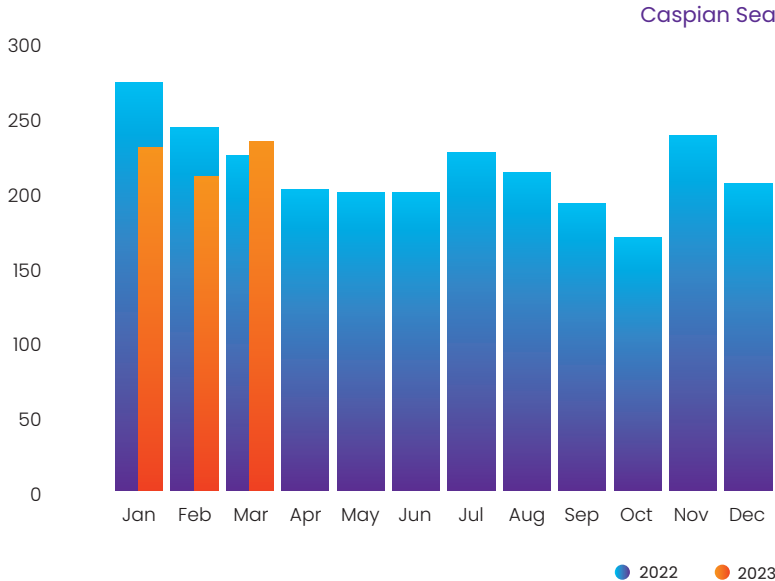
# 4 | Overflight Air Traffic Statistics Data

## 4.1 General Air Traffic Statistics Data

### 12821 acft
The number of IFR movements within Baku recorded in March

### 414 acft
Average number of IFR movements per day

### +49.8 %
Comparison with March 2022
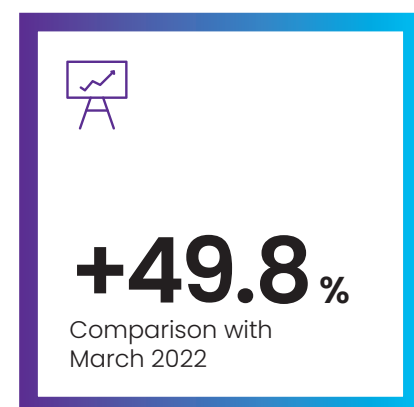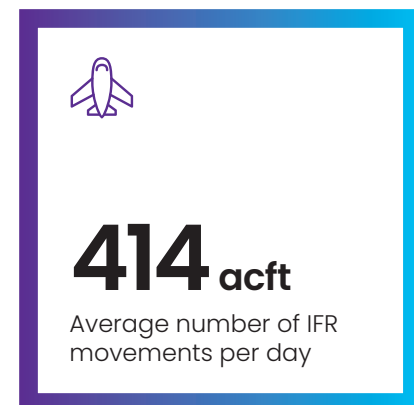
The number of overflights via Baku FIR recorded in March is **12821 ACFT.**

Average number of overflights per day is **414 ACFT** (Peak day, March 25, 2023 − **451 ACFT**; low day, March 27, 2023 − **362 ACFT**).

Comparison with March 2022 − **+49.8%.**

**Overflight traffic**

● 2022  ● 2023
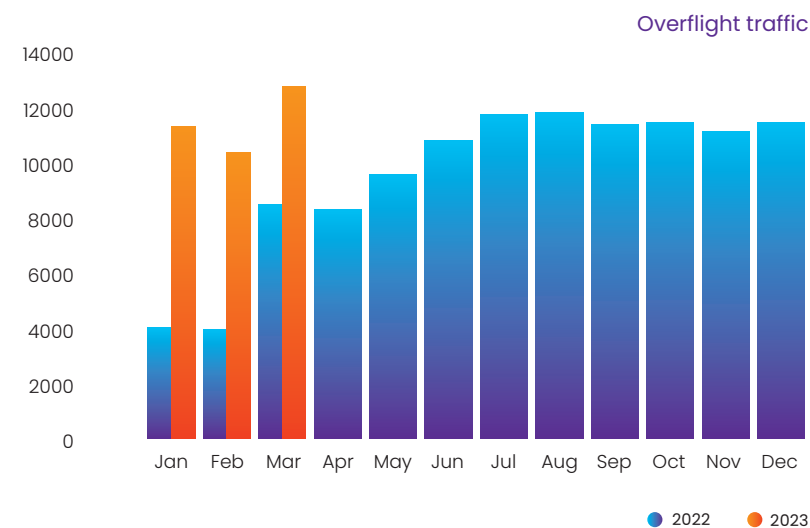
The number of overflights via Baku FIR recorded for three months 2023 is **34549 ACFT.**

Average number of overflights per day is **384 ACFT.**

Comparison with the same period of 2022 − **+108.9%.**

**Overflight traffic - Comparative chart 2019-2023**
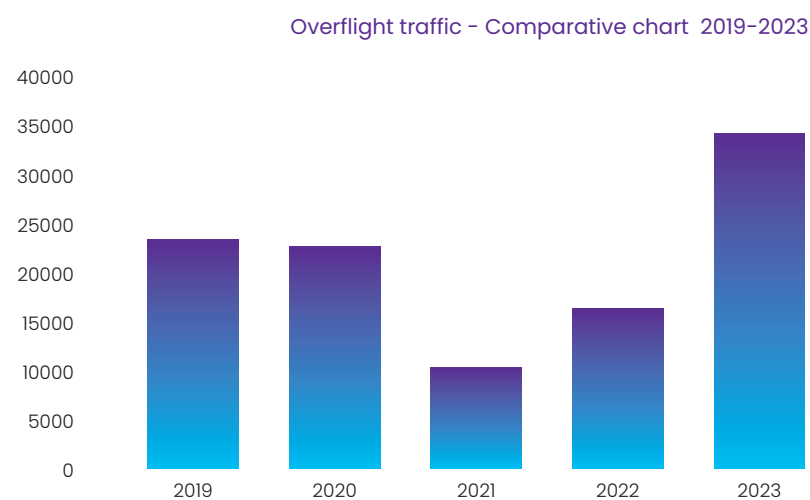
## 4.2 Traffic segments
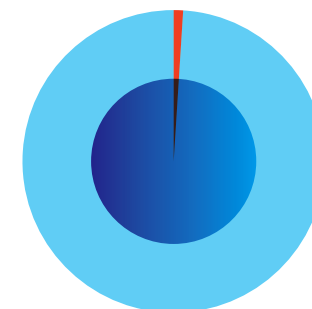
| | |
|---|---|
| ● Civil | 12774 ACFT |
| ● NATO | 6 ACFT |
| ● Russian Air Force | 36 ACFT |

## 4.3 Aircraft Operators - Top 20 Airspace Users

| Operator | Flights |
|---|---|
| Turkish Airlines | 1568 |
| Fly Dubai | 706 |
| Korean Air | 571 |
| Cathay Pasific | 540 |
| Air Astana | 428 |
| Finnair | 404 |
| Air Arabia | 341 |
| Lufthansa | 330 |
| Uzbekistan Airways | 315 |
| KLM | 312 |
| Aslana Airlines | 307 |
| Aeroflot | 291 |
| Emirates | 288 |
| British Airways | 272 |
| Air France | 268 |
| AeroLogic | 250 |
| Pegasus Airlines | 234 |
| Lufthansa Cargo | 222 |
| Qatar Airways | 206 |
| Red Wings | 189 |

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

## 4.4 Air traffic flows – main overflight flows.
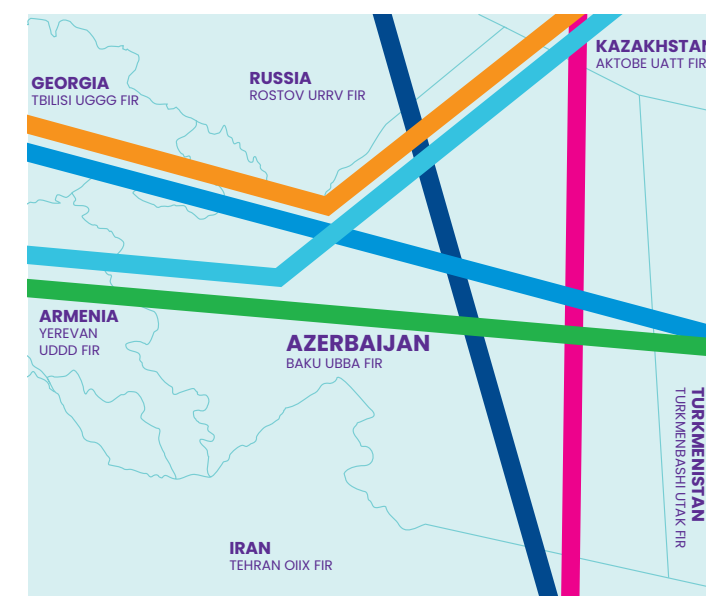
| | | |
|---|---|---|
| ● | Georgia - Turkmenistan and v.v. | 32% (4048 ACFT) |
| ● | Georgia - Kazakhstan and v.v. | 24% (3076 ACFT) |
| ● | Iran - Russia and v.v. | 5% (688 ACFT) |
| ● | Turkmenistan – Armenia and v.v. | 6% (828 ACFT) |
| ● | Kazakxstan - Armenia and v.v. | 7% (939 ACFT) |
| ● | Iran - Kazakhstan and v.v. | 16% (2013 ACFT) |
| | Other directions (Total) | 10% (1229 ACFT) |

# 5 Key Performance Indicators (KPIs)

This report presents Key Performance Indicators (KPIs) to assess the operational efficiency of the "Azeraeronavigation" 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  |     |     |     |     |     |     |     |     |     |

Capacity Utilization March 2023    **37%**

KPI - Capacity Utilisation
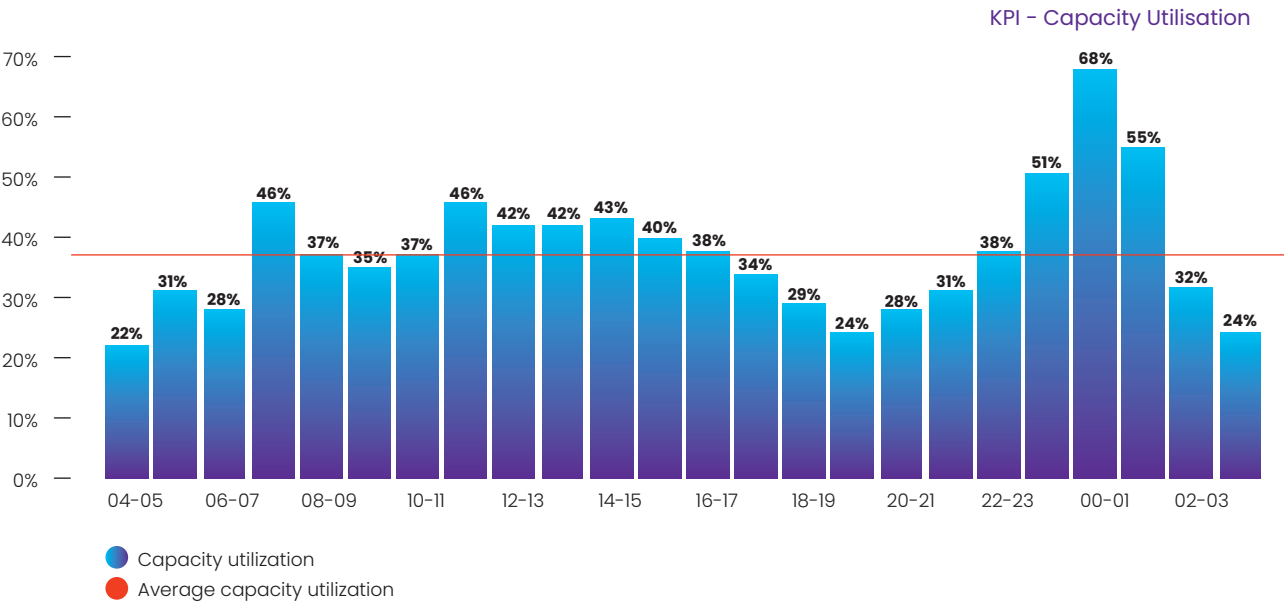


## 5.2 KPI – Total Distance flown.

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 |           |           |           |

|      | 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 |           |           |           |           |           |           |

Total flown distance (km) - FIR
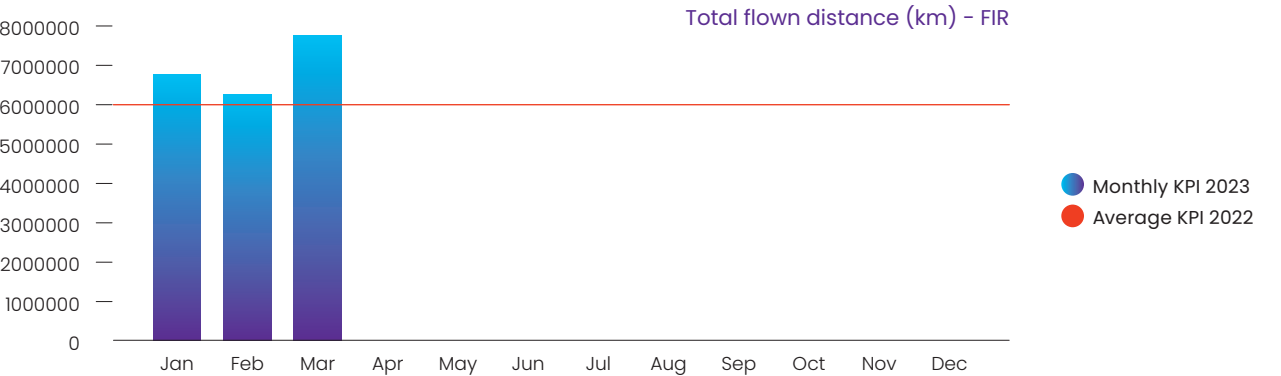


### 5.2.2 KPI – Total Distance flown - En-route traffic.

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 |           |           |           |

|      | Jul       | Aug       | Sep       | Oct       | Nov      | Dec      |
|------|-----------|-----------|-----------|-----------|----------|----------|
| 2022 | 5 440 267 | 5 509 422 | 5 281 026 | 5 341 818 | 5228581  | 5412507  |
| 2023 |           |           |           |           |          |          |

Total flown distance (km) - En-route
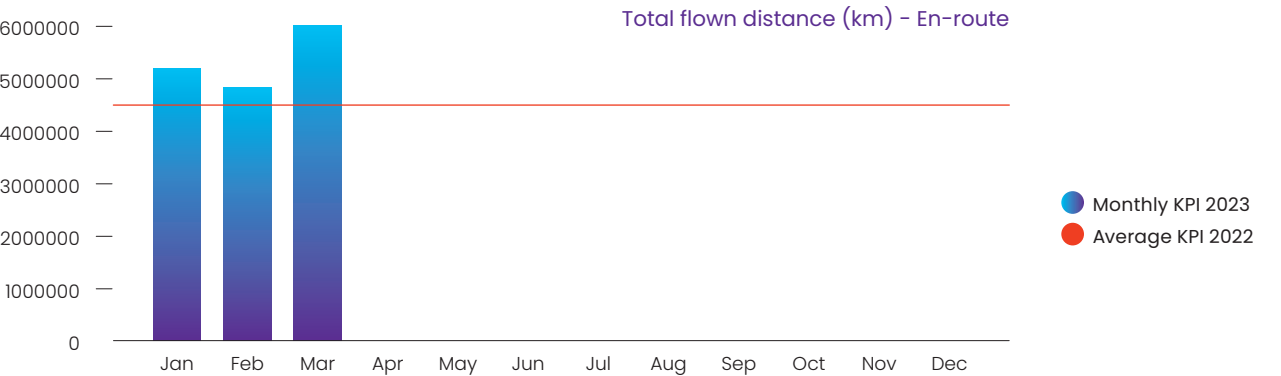
### 5.2.3 KPI – Total Distance flown - Aerodrome movements.

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 | | | |

|      | 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** | | | | | | |

Total flown distance (km) - Aerodrome movements



- Monthly KPI 2023
- Average KPI 2022

## 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 | | | | | | | | | |

KPI - Average flown distance (FIR) March 2023          **428 km/ACFT**

Average flown distance per  ACFT (km) - FIR



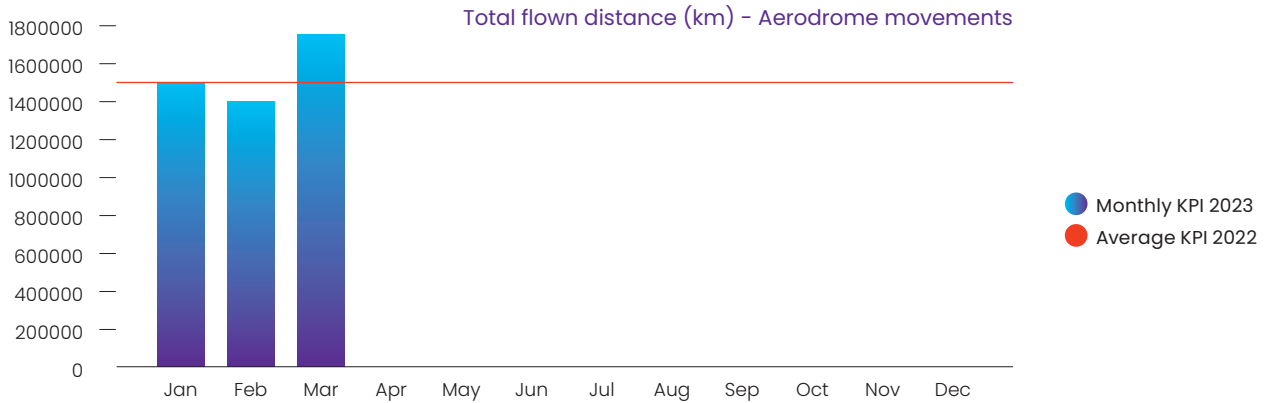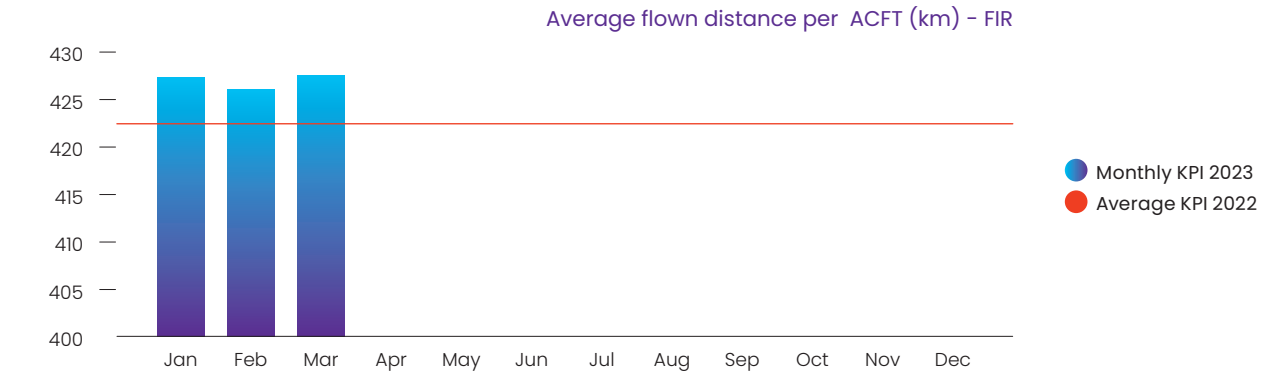- Monthly KPI 2023
- Average KPI 2022

### 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 | | | | | | | | | |

KPI - Average flown distance (ENR) March 2023          **466 km/ACFT**

Average flown distance per  ACFT (km) - En-route



- Monthly KPI 2023
- Average KPI 2022
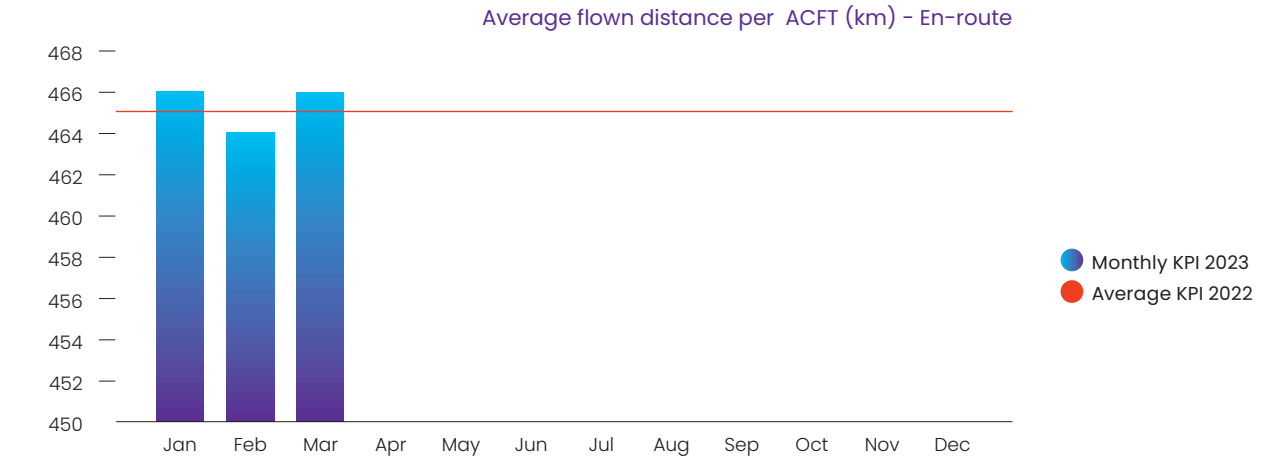
### 5.3.3 KPI- Average flown distance (AD)

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 | | | | | | | | | |

KPI - Average flown distance (AD) March 2023          **333 km/ACFT**

Average flown distance per  ACFT (km) - Aerodrome movements



- Monthly KPI 2023
- Average KPI 2022
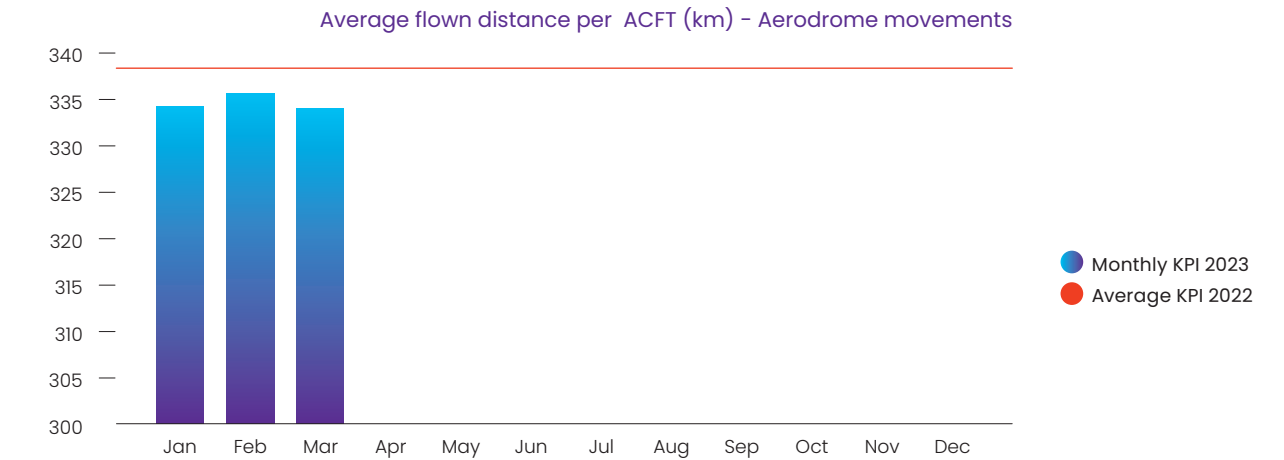
## 5.4 KPI –Total IFR/hours

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 |  |  |  |  |  |  |  |  |  |

KPI - Total IFR/hours (FIR) March 2023　　**9484 IFR/hours**
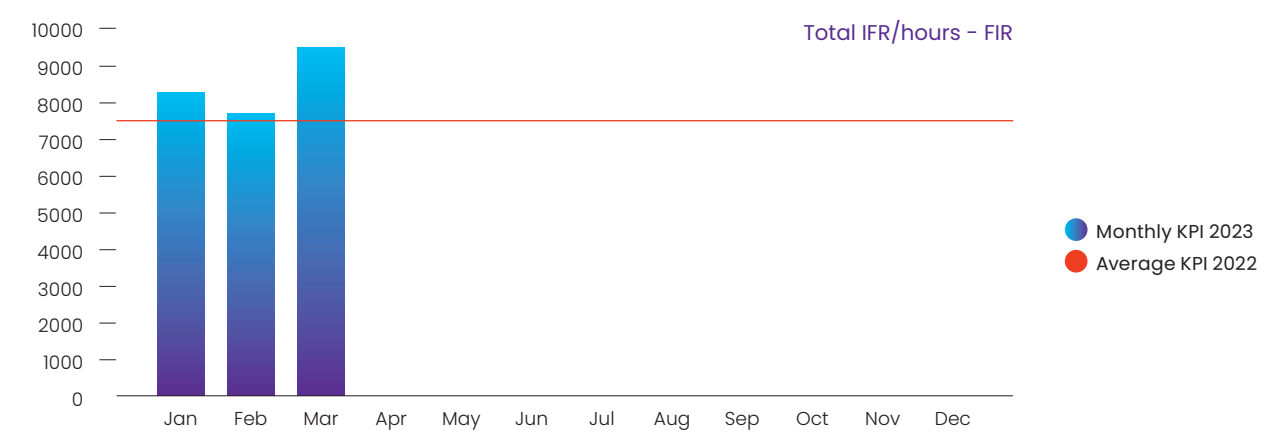


### 5.4.2 Total IFR/hours -Enroute

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 |  |  |  |  |  |  |  |  |  |

KPI - Total IFR/hours (ENR) March 2023　　**6908 IFR/hours**
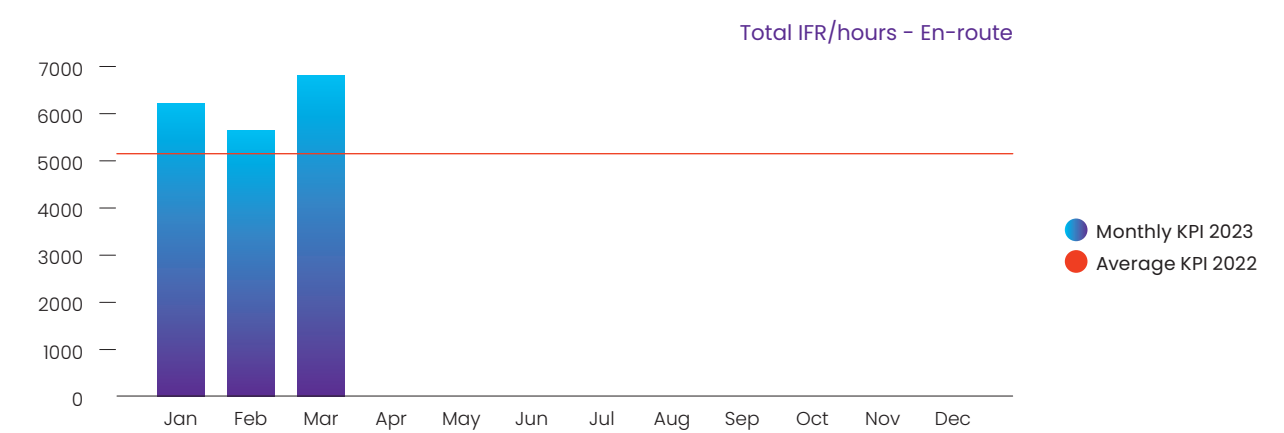


### 5.4.3 Total IFR/hours –Aerodrome movements

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 |  |  |  |  |  |  |  |  |  |

KPI - Total IFR/hours (AD) March 2023　　**2576 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 |  |  |  |  |  |  |  |  |  |

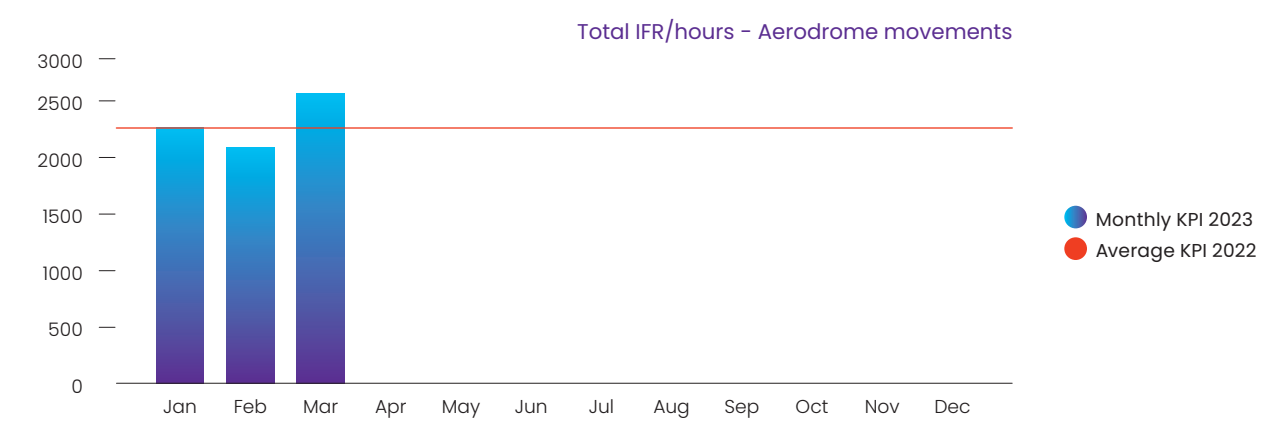KPI - Average IFR/min per ACFT (FIR) March 2023 **32 min/ACFT**
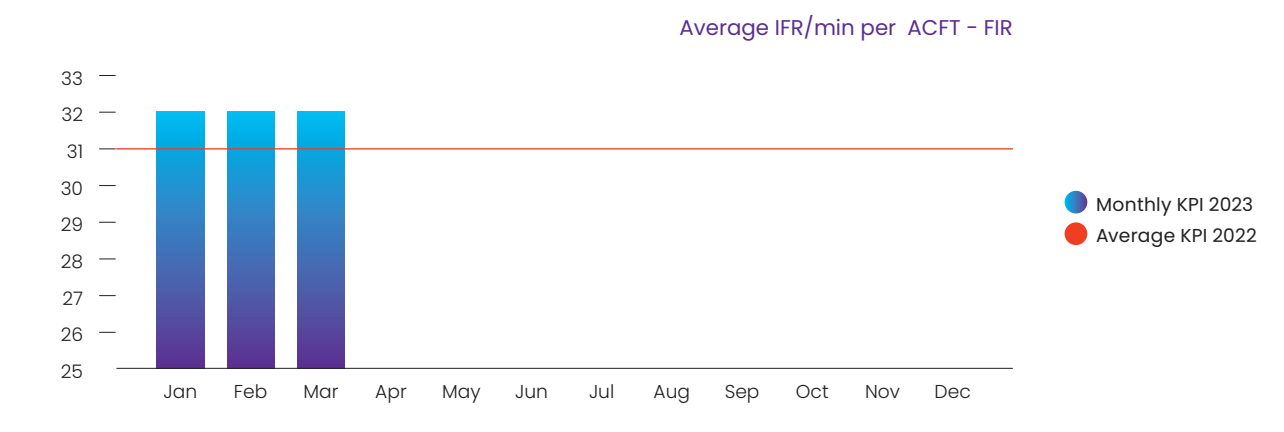
### 5.5.2 Average IFR/min per ACFT – En-route

Only overflight traffic data is used for calculation of KPI - Average IFR/min per ACFT (ENR).
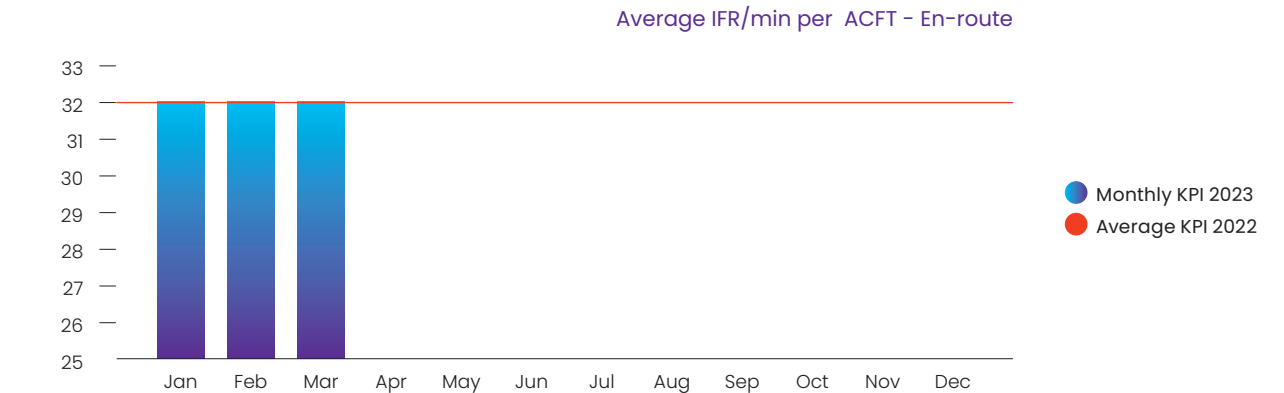
|  | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **2022** | 33 | 33 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 33 |
| **2023** | 32 | 32 | 32 | | | | | | | | | |

KPI - Average IFR/min per ACFT (ENR) March 2023     **32 min/ACFT**
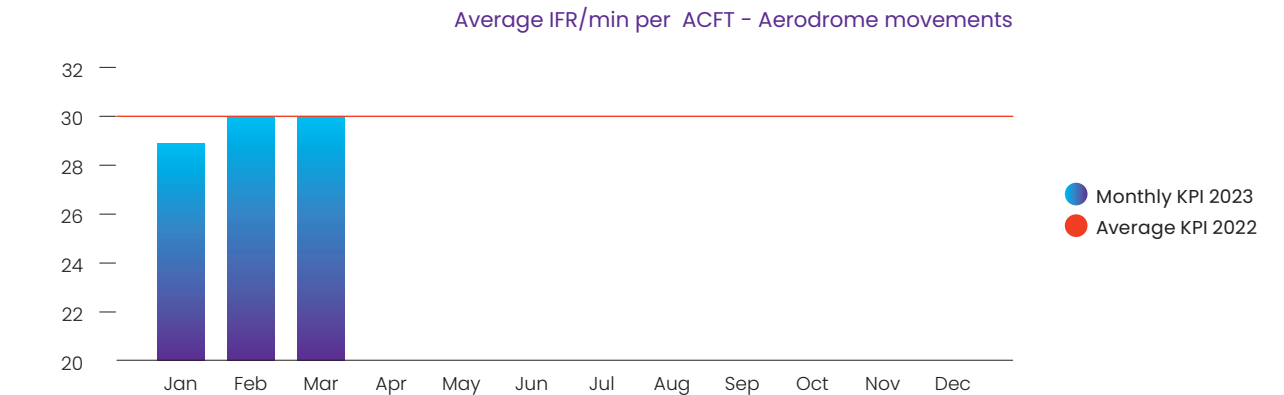
Average IFR/min per ACFT - En-route



### 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 | | | | | | | | | |

KPI - Average IFR/min per ACFT (AD) March 2023 **30 min/ACFT**

Average IFR/min per ACFT - Aerodrome movements



## 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 ATCOSs 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) March 2023 | **0.859** |
| ATCO in OPS hour productivity (Baku ATCC) March 2023 | **1.785** |
| ATCO in OPS hour productivity (Regional ATCCs) March 2023 | **0.071** |

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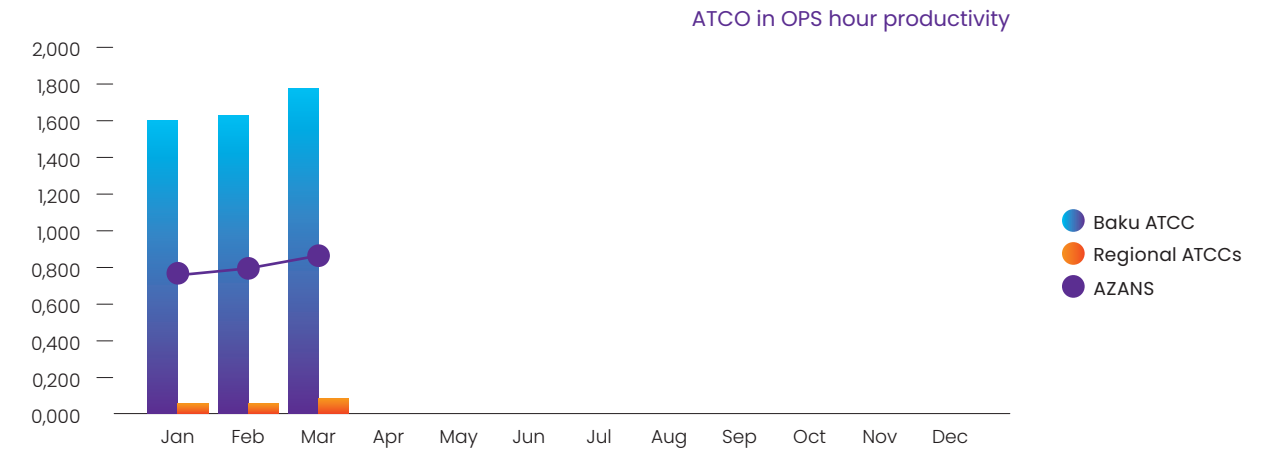
### 5.6.2 Working hours per ATCO in OPS (CANSO KPI 3B)

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

Working hours per ATCO in OPS
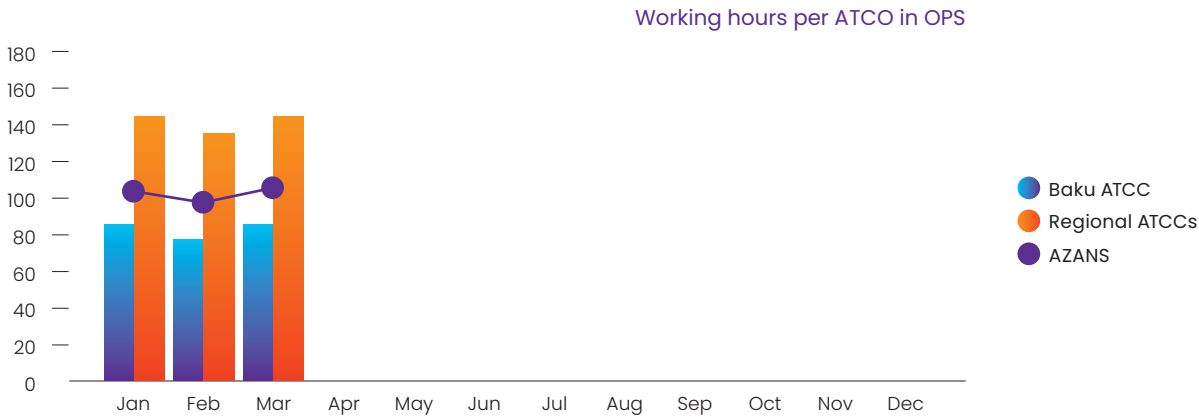


### 5.6.3 IFR hours per ATCO in OPS (CANSO KPI 3C)

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) March 2023 | **52.4** |
| IFR hour per ATCO in OPS (Baku ATCC) March 2023 | **77.1** |
| IFR hour per ATCO in OPS (Regional ATCCs) March 2023 | **6.9** |

IFR hours per ATCO in OPS



### 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 March 2023 | **1.42** |

Ratio of Frontline Service Staff to ATCO in OPS
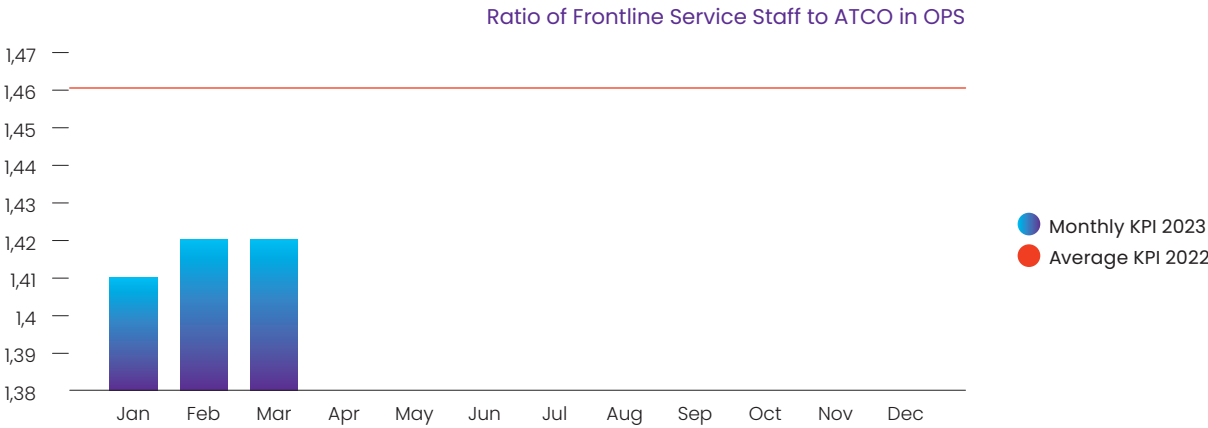


## 5.7 CO2 emissions

### 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).
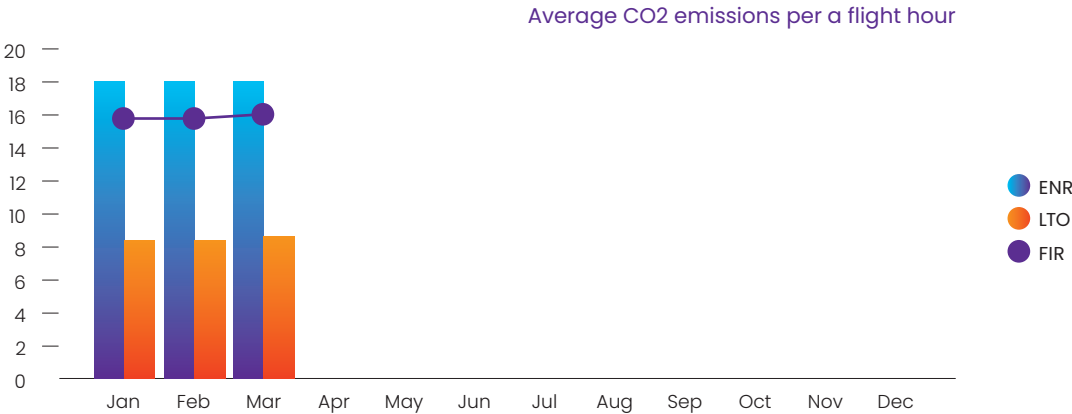
| | |
|---|---|
| Total CO2 emissions (FIR) March 2023 | **148 358 tons** |
| Total CO2 emissions (ENR) March 2023 | **125 945 tons** |
| Total CO2 emissions (LTO) March 2023 | **22 414 tons** |

Total CO2 emissions
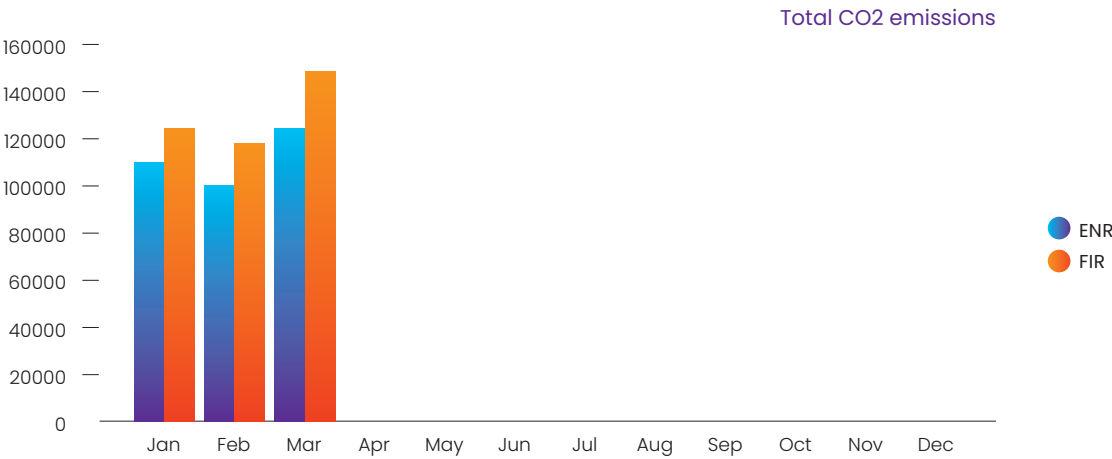
### 5.7.2 CO2 emissions per a flight hour

| | |
|---|---|
| CO2 emissions per a flight hour (FIR) March 2023 | **15.6 ton/hour** |
| CO2 emissions per a flight hour (ENR) March 2023 | **18.0 ton/hour** |
| CO2 emissions per a flight hour (LTO) March 2023 | **8.7 ton/hour** |

**Average CO2 emissions per a flight hour**



### 5.7.3 CO2 emissions per a kilometer flight distance

| | |
|---|---|
| CO2 emissions per a kilometer flight distance (FIR) March 2023 | **19 kg/km** |
| CO2 emissions per a kilometer flight distance (ENR) March 2023 | **21 kg/km** |
| CO2 emissions per a kilometer flight distance (LTO) March 2023 | **13 kg/km** |

**Average CO2 emissions per a kilometer flight distance**



### 5.7.4 CO2 emissions per a flight

| | |
|---|---|
| CO2 emissions per a flight (FIR) March 2023 | **8.2 ton/flight** |
| CO2 emissions per a flight (ENR) March 2023 | **9.8 ton/flight** |
| CO2 emissions per a flight (AD) March 2023 | **4.3 ton/flight** |

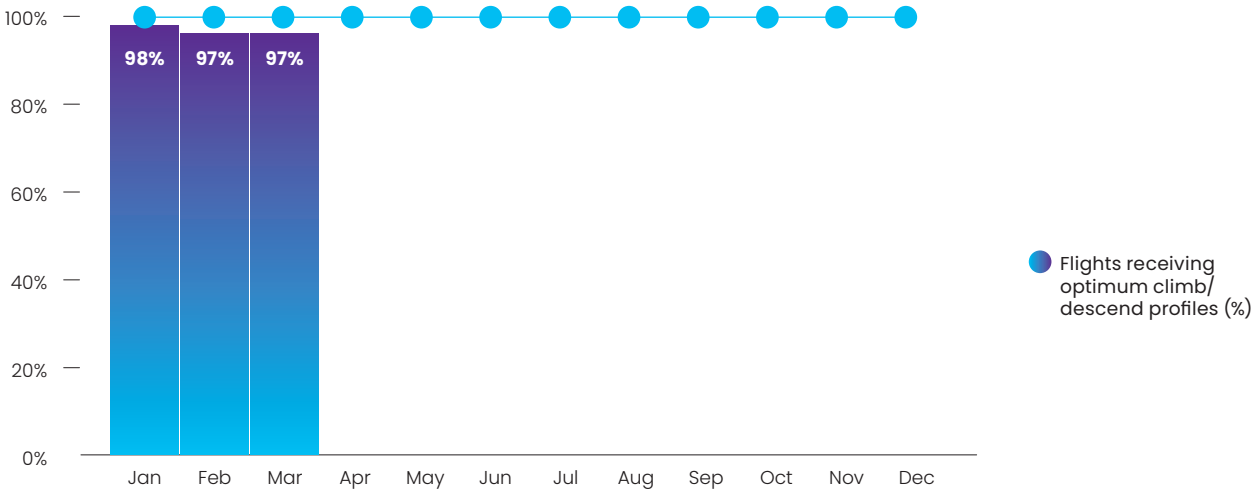**Average CO2 emissions per a flight**
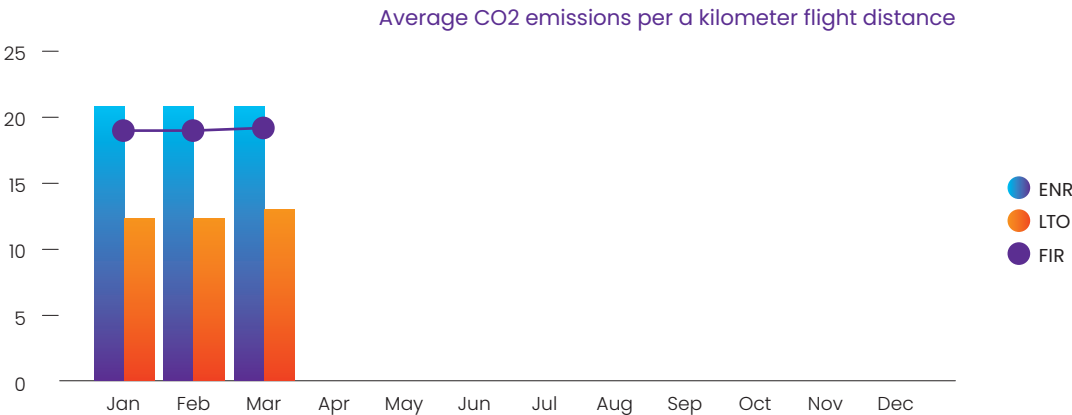


### 5.8 KPI – CCO/CDO operations

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.

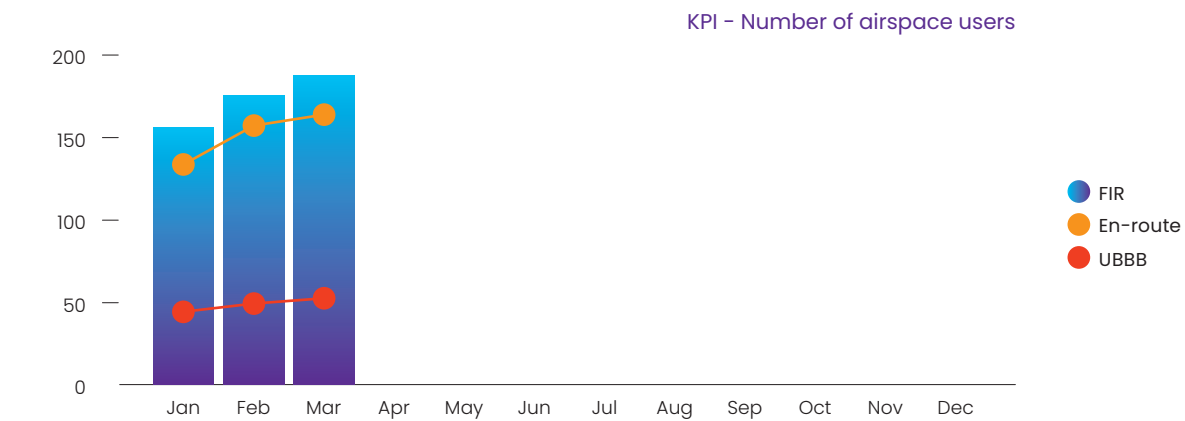| | |
|---|---|
| KPI - CCO/CDO operations March 2023 | **97%** |

## 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) March 2023    **191 Airlines**
KPI - Number of airspace users (ENR) March 2023    **171 Airlines**
KPI - Number of airspace users (AD) March 2023    **57 Airlines**

KPI - Number of airspace users

- FIR
- En-route
- UBBB