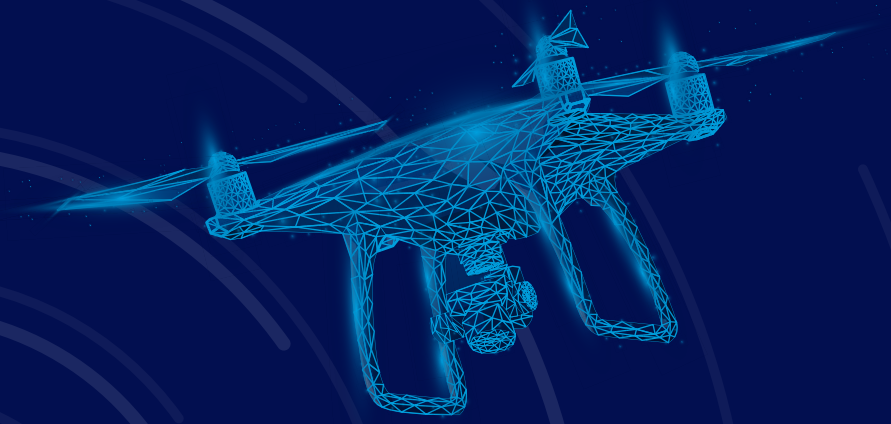
AZANS
AZERAERONAVIGATION
25
1996-2021
ANNIVERSARY

AZERAERONAVIGATION



Air Traffic Statistics Report

November

2022

Content

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

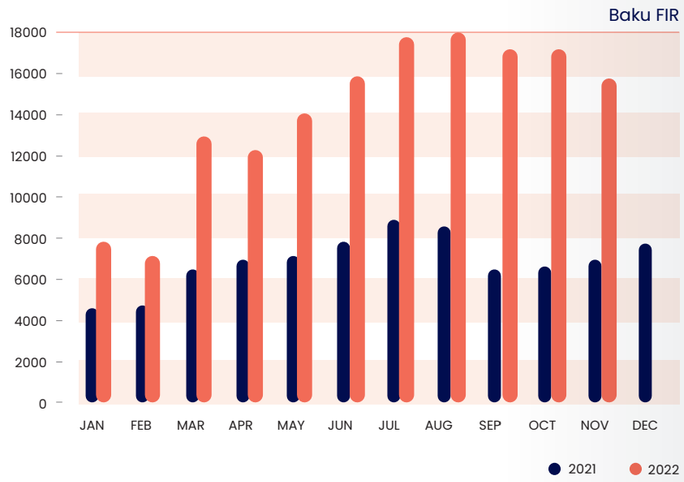
1.1 General Air Traffic Statistics Data

The number of IFR movements within Baku FIR recorded in November is **15920** ACFT. Average number of IFR movements per day is **531** ACFT (Peak day, November 12, 2022 – **586** ACFT; low day, November 21, 2022 – **490** ACFT).
Comparison with November 2021 – **+135.6%**.

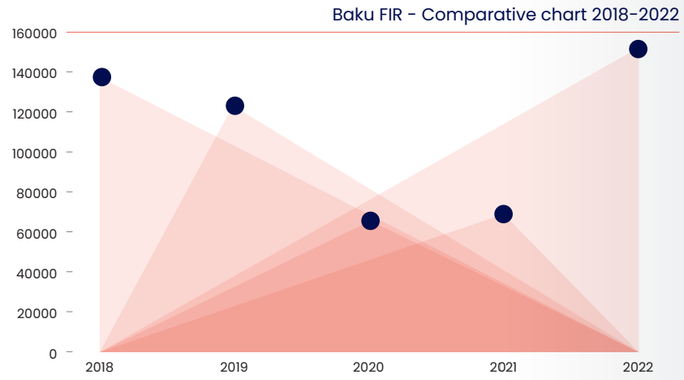
15920 ACFT
THE NUMBER OF IFR MOVEMENTS WITHIN BAKU RECORDED IN NOVEMBER

531 ACFT
AVERAGE NUMBER OF IFR MOVEMENTS PER DAY

+135.6%
COMPARISON WITH NOVEMBER 2021

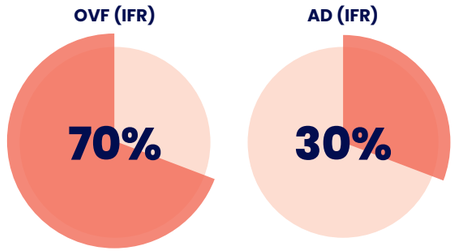


The number of IFR movements within Baku FIR recorded for eleven months 2022 is **152826** ACFT. Average number of IFR movements per day is **458** ACFT.
Comparison with the same period of 2021 – **+108.4%**.

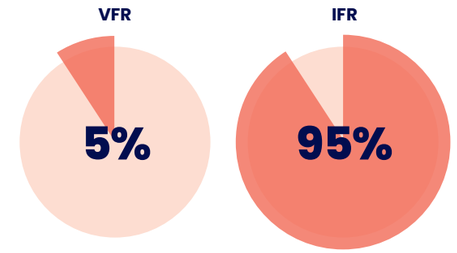


1.2 Traffic Segments

1.2.1 The number of IFR movements within Baku FIR recorded in November is **15920** ACFT, where **11200** ACFT are overflight traffic and **4720** ACFT are aerodrome movements.



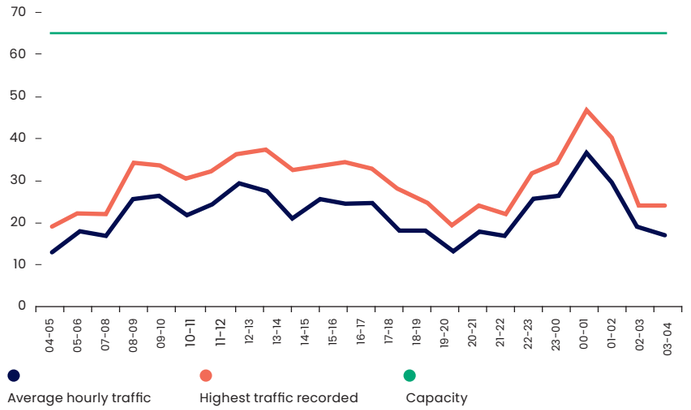
1.2.2 Total number of movements within Baku FIR recorded in November is **16842** ACFT, where **15920** ACFT are IFR movements and **922** ACFT are VFR movements. Average number of movements per day is **562** ACFT.
Comparison with November 2021 – **+110.6%**.



1.3 Capacity vs traffic demand

Highest traffic recorded	**48 ACFT** (November 28, 2022 00:00-01:00)	
Peak hours (NOVEMBER average data):	00:00-01:00	**38 ACFT**
	01:00-02:00	**30 ACFT**
	11:00-12:00	**30 ACFT**
	12:00-13:00	**28 ACFT**
	08:00-09:00	**27 ACFT**
	23:00-00:00	**27 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

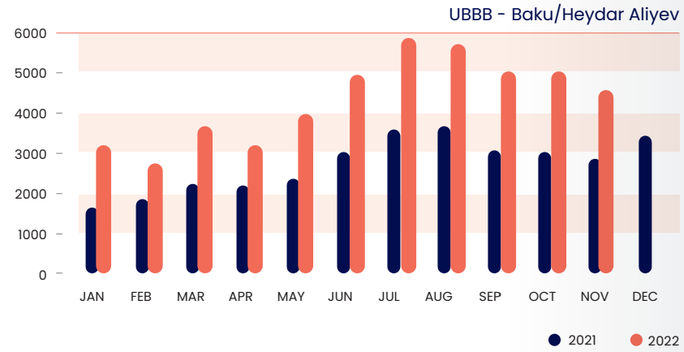
2.1.1 Total number of movements at Baku/Heydar Intl' Aliyev airport recorded in November is **4530** ACFT. Average number of movements per day is **151** ACFT (Peak day, November 12, 2022 – **166** ACFT; low day, November 22, 2022 – **132** ACFT).

Comparison with November 2021 – **+52.8%**.

4530 ACFT
TOTAL NUMBER OF MOVEMENTS IN NOVEMBER 2022

151 ACFT
AVERAGE NUMBER OF MOVEMENTS PER DAY

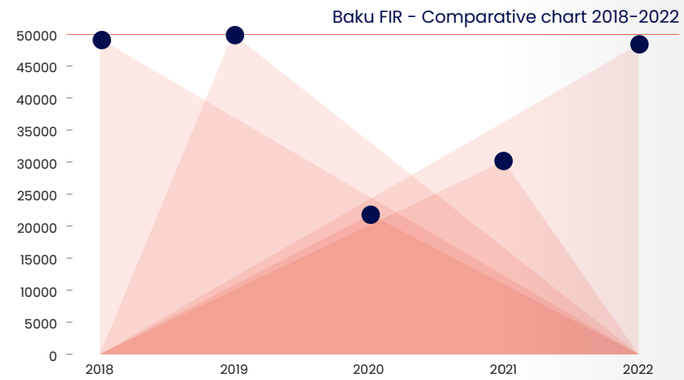
+52.8%
COMPARISON WITH NOVEMBER 2021



2.1.2 Comparative chart 2018 - 2022

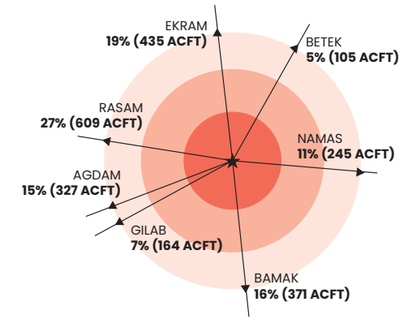
The number of movements at Baku/Heydar Intl' Aliyev airport recorded for eleven months 2022 is **47993** ACFT. Average number of movements per day is **144** ACFT.

Comparison with the same period of 2021 – **+62.9%**.



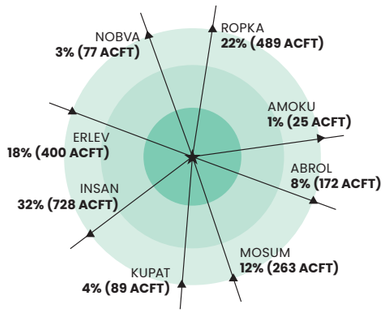
2.1.3 Air traffic flows – Load of SIDs.

Baku/Heydar Aliyev
Departure Flows

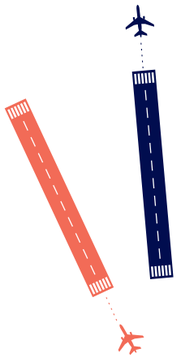


2.1.4 Air traffic flows – Load of STARs.

Baku/Heydar Aliyev
Arrival Flows



2.1.5 Use of RWY 16/34 and 17/35



Take-off

RWY 16/34	44% (988 ACFT)
RWY 17/35	56% (1269 ACFT)

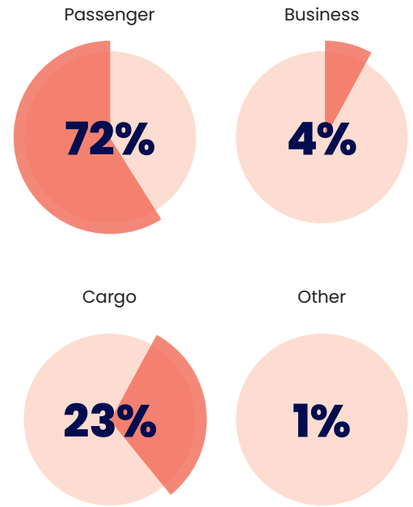
Landing

RWY 16/34	49% (1120 ACFT)
RWY 17/35	51% (1144 ACFT)

Total

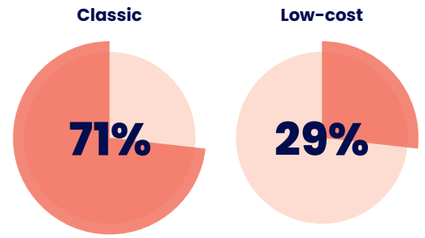
RWY 16/34	47% (2108 ACFT)
RWY 17/35	53% (2413 ACFT)

2.1.6 Types of flights

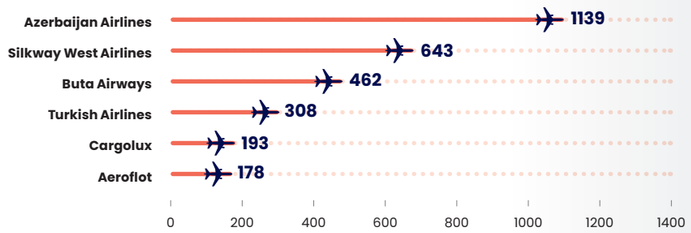


2.1.7 Passenger flights (Budget/low-cost vs classic)

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.**

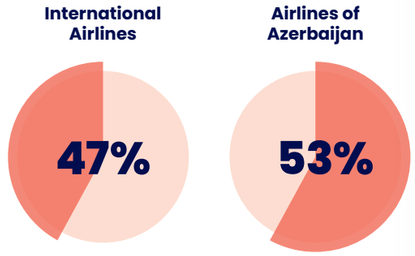


2.1.8 Aircraft Operators – Top 6 Airspace Users

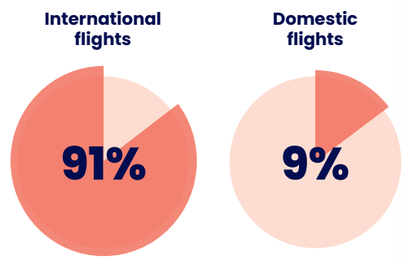


Note: This chart shows the number of flights in November 2022

2.1.9 Aircraft Operators – Airlines of Azerbaijan vs international airlines



2.1.10 Traffic segments – Domestic vs International



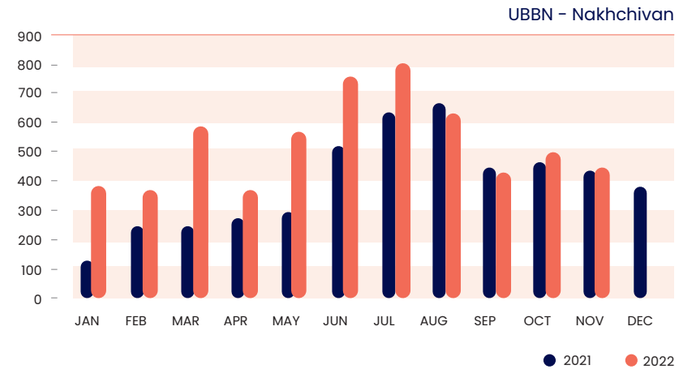
2.2 Nakhchivan International airport

Total number of movements at Nakhchivan International airport recorded in November is **432** ACFT. Average number of movements per day is **15** ACFT.
Comparison with November 2021 – **+3.1%**.

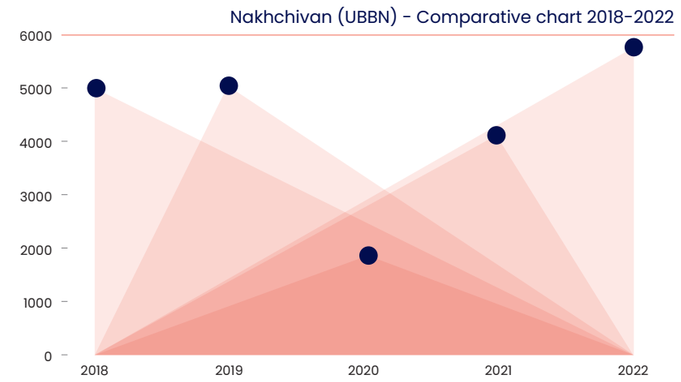
432 ACFT
TOTAL NUMBER OF MOVEMENTS IN NOVEMBER 2022

15 ACFT
AVERAGE NUMBER OF MOVEMENTS PER DAY

+3.1%
COMPARISON WITH NOVEMBER 2021



The number of movements at Nakhchivan International airport recorded for eleven months 2022 is **5777** ACFT. Average number of movements per day is **18** ACFT.
Comparison with the same period of 2021 – **+36.9%**.



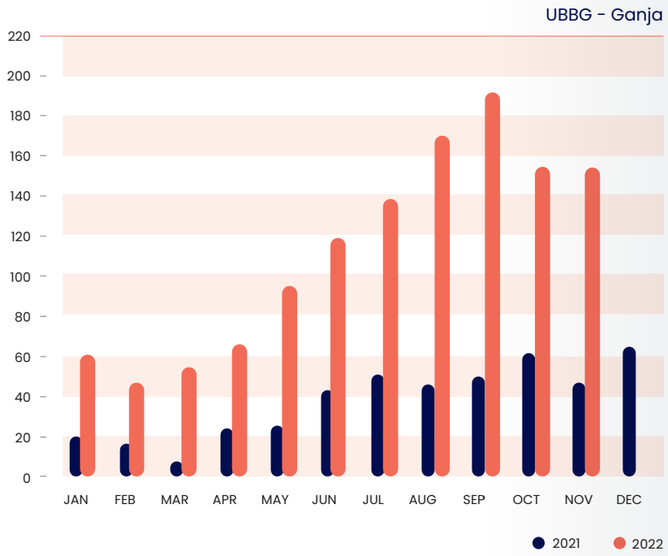
2.3 Ganja International airport

Total number of movements at Ganja International airport recorded in November is **152** ACFT. Average number of movements per day is **5** ACFT.
Comparison with November 2021 – **+230.4%**.

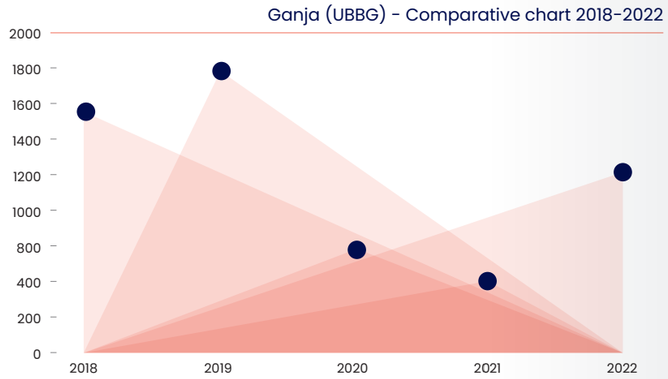
152 ACFT
TOTAL NUMBER OF MOVEMENTS IN NOVEMBER 2022

5 ACFT
AVERAGE NUMBER OF MOVEMENTS PER DAY

+230.4%
COMPARISON WITH NOVEMBER 2021



The number of movements at Ganja International airport recorded for eleven months 2022 is **1249** ACFT. Average number of movements per day is **4** ACFT.
Comparison with the same period of 2021 – **+225.3%**.



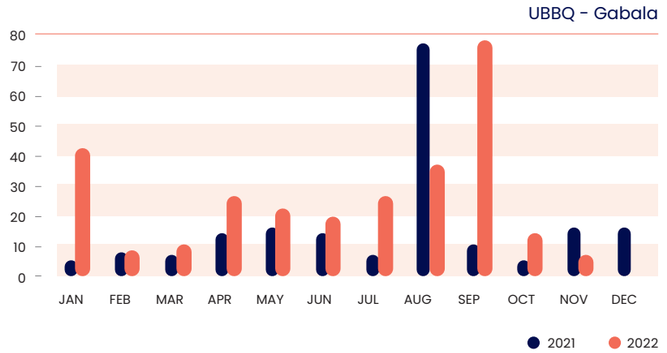
2.4 Gabala International airport

Total number of movements at Gabala International airport recorded in November is **6** ACFT. Average number of movements per day is **0.2**.
Comparison with November 2021 – **-57.1%**.

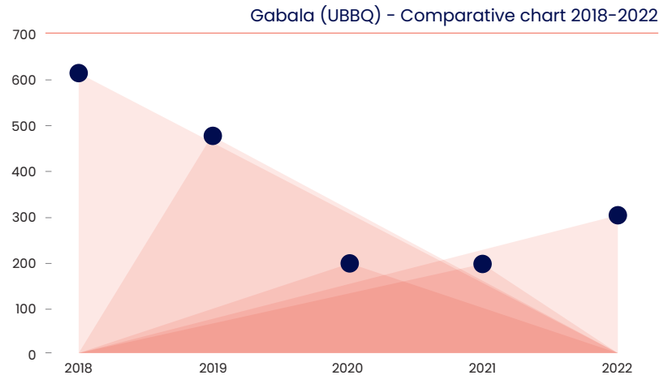
6 ACFT
TOTAL NUMBER OF MOVEMENTS IN NOVEMBER 2022

0.2 ACFT
AVERAGE NUMBER OF MOVEMENTS PER DAY

-57.1%
COMPARISON WITH NOVEMBER 2021



The number of movements at Gabala International airport recorded for eleven months 2022 is **293** ACFT. Average number of movements per day is **0.9**.
Comparison with the same period of 2021 – **+74.4%**.



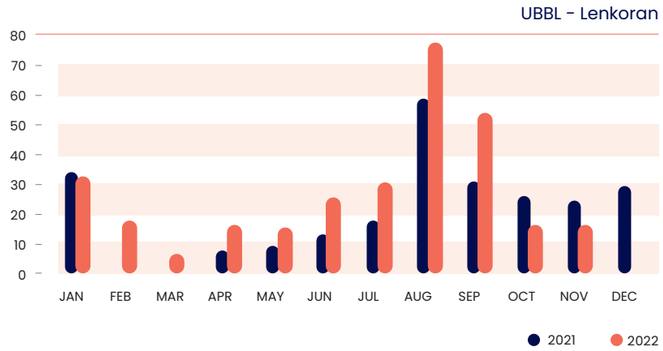
2.5 Lenkoran International airport

Total number of movements at Lenkoran International airport recorded in November is **18** ACFT. Average number of movements per day is **0.6**.
Comparison with November 2021 – **-25.0%**.

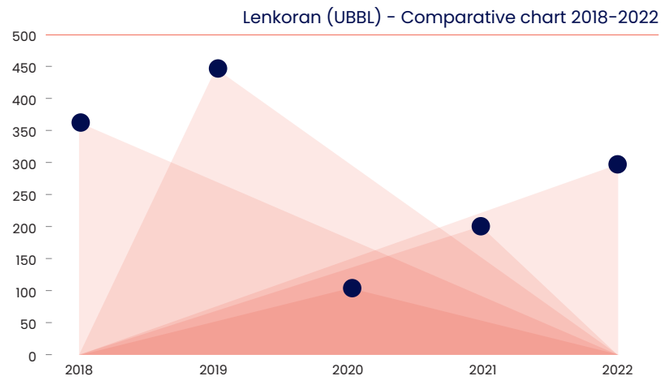
18 ACFT
TOTAL NUMBER OF MOVEMENTS IN NOVEMBER 2022

0.6 ACFT
AVERAGE NUMBER OF MOVEMENTS PER DAY

-25.0%
COMPARISON WITH NOVEMBER 2021



The number of movements at Lenkoran International airport recorded for eleven months 2022 is **300** ACFT. Average number of movements per day is **0.9**.
Comparison with the same period of 2021 – **+38.2%**.



2.6 Fuzuli International airport

Total number of movements - 42 ACFT
Average number of movements per day – 2

2.7 Zagatala International airport

No movements were recorded

2.8 Zangilan airport

Total number of movements - 4 ACFT
Average number of movements per day – 0.2.

2.9 Yevlakh airport

No movements were recorded

3. VFR Movements Statistics data

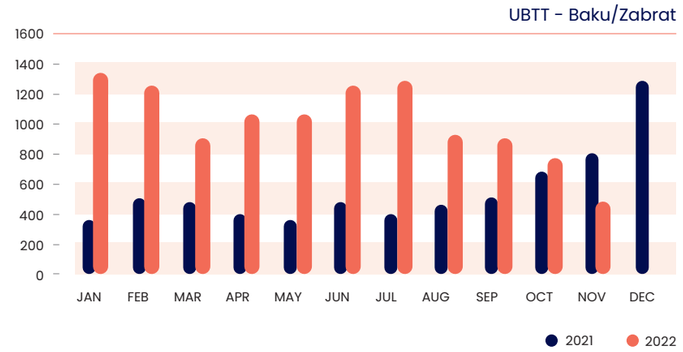
3.1 Baku/Zabrat airport

Total number of VFR movements at Baku/Zabrat airport recorded in November is **475** ACFT. Average number of movements per day is **16** ACFT
Comparison with November 2021 – **-40.6%**.

475 ACFT
TOTAL NUMBER OF VFR MOVEMENTS AT BAKU/ ZABRAT AIRPORT RECORDED IN NOVEMBER 2022

16 ACFT
AVERAGE NUMBER OF MOVEMENTS PER DAY

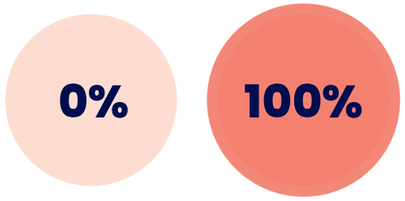
-40.6%
COMPARISON WITH NOVEMBER 2021



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

Cessna C172
0 flight

Helicopters
475 flights



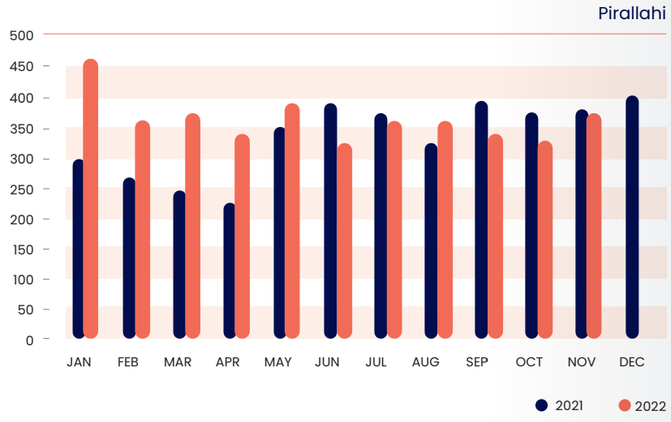
3.2 Pirallahi heliport

Total number of VFR movements at Pirallahi heliport recorded in November is **376** ACFT. Average number of movements per day is **13** ACFT
Comparison with November 2021 – **-1.1%**.

376 ACFT
TOTAL NUMBER OF MOVEMENTS IN NOVEMBER 2022

13 ACFT
AVERAGE NUMBER OF MOVEMENTS PER DAY

-1.1%
COMPARISON WITH NOVEMBER 2021



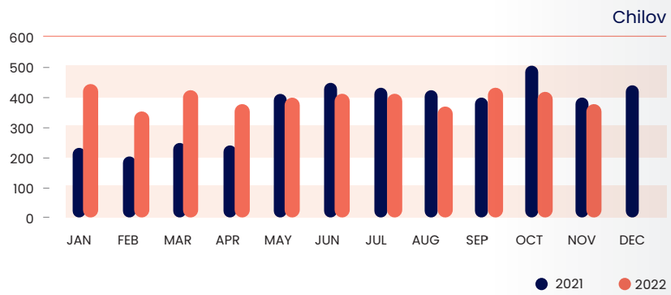
3.3 Chilov heliport

Total number of VFR movements at Chilov heliport recorded in November is **376** ACFT. Average number of movements per day is **13** ACFT
Comparison with November 2021 – **-6.0%**.

376 ACFT
TOTAL NUMBER OF MOVEMENTS IN NOVEMBER 2022

13 ACFT
AVERAGE NUMBER OF MOVEMENTS PER DAY

-6.0%
COMPARISON WITH NOVEMBER 2021



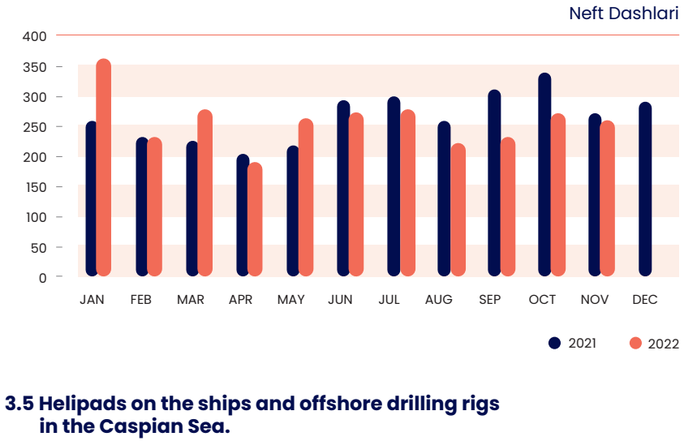
3.4 Neft Dashlari heliport

Total number of VFR movements at Neft Dashlari heliport recorded in November is **92** ACFT. Average number of movements per day is **3** ACFT.
Comparison with November 2021 – **-65.9%**.

92 ACFT
TOTAL NUMBER OF MOVEMENTS IN NOVEMBER 2022

3 ACFT
AVERAGE NUMBER OF MOVEMENTS PER DAY

-65.9%
COMPARISON WITH NOVEMBER 2021



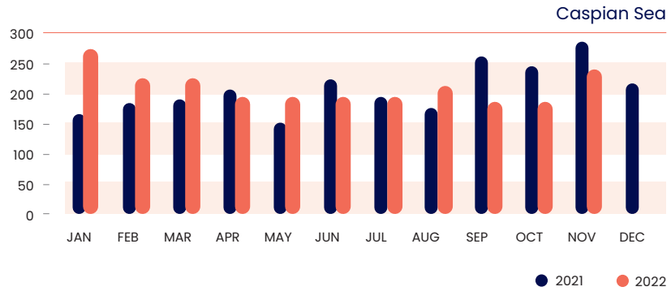
3.5 Helipads on the ships and offshore drilling rigs in the Caspian Sea.

Total number of VFR movements at helipads on the ships and offshore drilling rigs in the Caspian Sea recorded in November is **234** ACFT. Average number of movements per day is **8** ACFT
Comparison with November 2021 – **-17.0%**.

234 ACFT
TOTAL NUMBER OF MOVEMENTS IN NOVEMBER 2022

8 ACFT
AVERAGE NUMBER OF MOVEMENTS PER DAY

-17.0%
COMPARISON WITH NOVEMBER 2021



4. Overflight Air Traffic Statistics Data

4.1 General Air Traffic Statistics Data

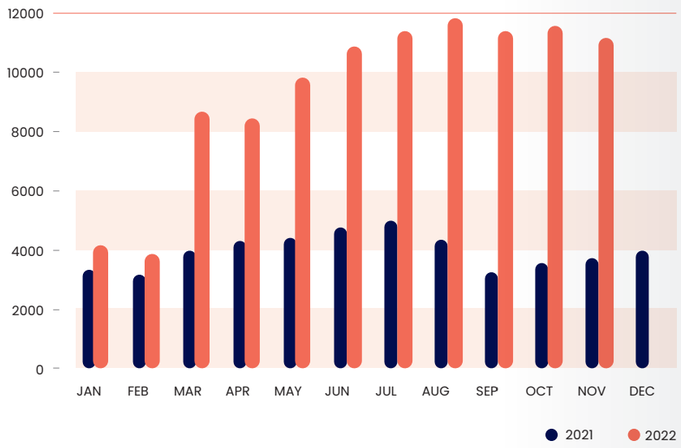
The number of overflights via Baku FIR recorded in November is **11200** ACFT. Average number of overflights per day is **374** ACFT (Peak day, November 12, 2022 – **410** ACFT; low day, November 24, 2022 – **345** ACFT).
Comparison with November 2021 – **+203.1%**.

11200 ACFT
THE NUMBER OF OVERFLIGHTS VIA BAKU FIR

374 ACFT
AVERAGE NUMBER OF OVERFLIGHTS PER DAY

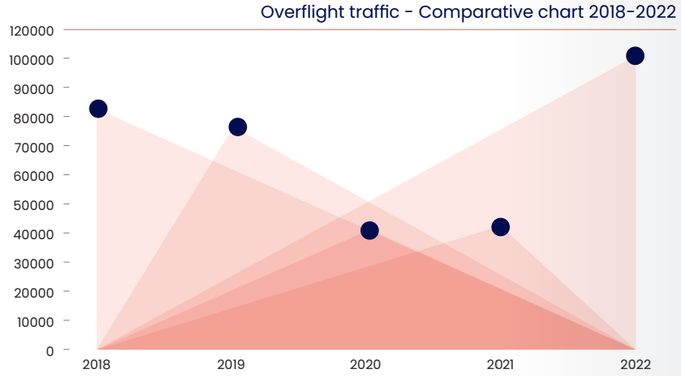
+203.1%
COMPARISON WITH NOVEMBER 2021

Overflight traffic



The number of overflights via Baku FIR recorded for eleven months 2022 is **103309** ACFT. Average number of overflights per day is **310** ACFT.
Comparison with the same period of 2021 – **+140.1%**.

Overflight traffic - Comparative chart 2018-2022



4.2 Traffic segments

Civil
11131 flight

99%

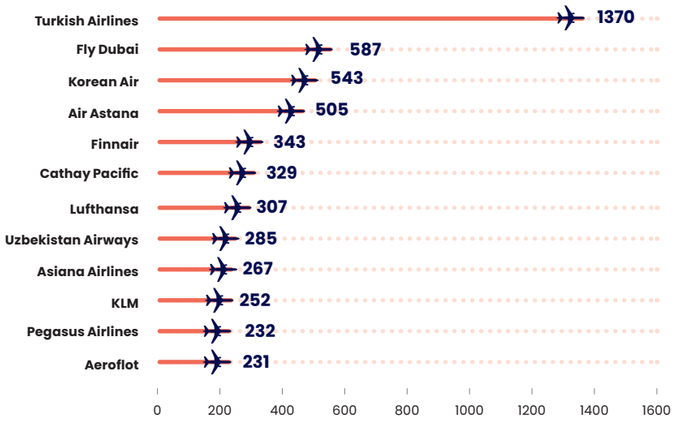
NATO
22 flights

0%

Russian Air Force
47 flights

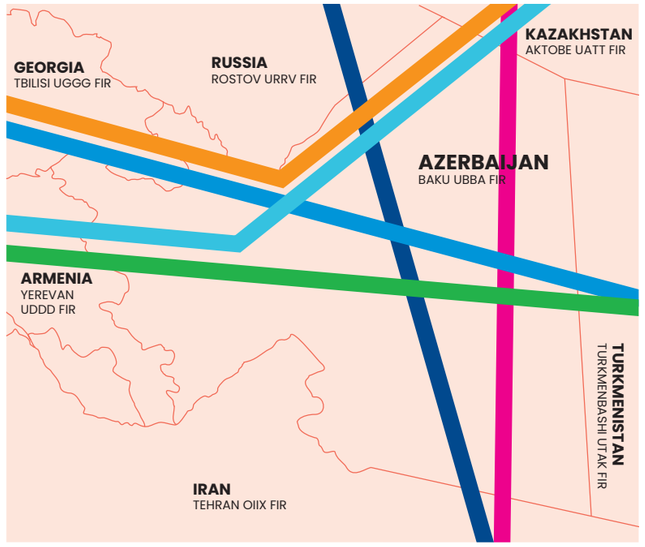
1%

4.3 Aircraft Operators - Top 12 Airspace Users



Note: This chart shows the number of flights in November 2022.

4.4 Air traffic flows – main overflight flows



- Georgia - Turkmenistan and v.v. **29% (3262 ACFT)**
- Georgia - Kazakhstan and v.v. **25% (2753 ACFT)**
- Iran - Russia and v.v. **6% (638 ACFT)**
- Turkmenistan - Armenia and v.v. **8% (943 ACFT)**
- Kazakxstan - Armenia and v.v. **10% (1114 ACFT)**
- Iran - Kazakhstan and v.v. **14% (1590 ACFT)**

Other directions (Total) **8% (900 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 – Staff Productivity

KPI Staff productivity is a measure of the production output per staff member employed or per hours worked.

«KPI – Staff Productivity» is calculated by the formula: the value of "number of aircraft" is divided by the value of "number of ATCOs"

$$\text{Productivity} = \frac{\text{Number of ACFT}}{\text{Number of ATCO}}$$

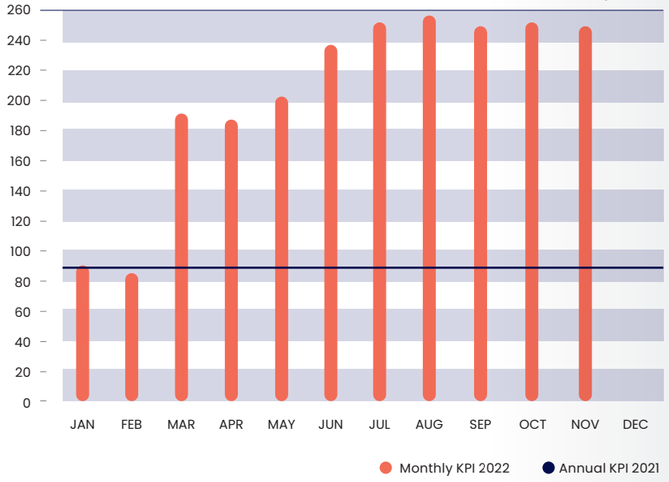
5.1.1 KPI – En-route (ENR)

Overflight traffic data only is used for calculation of Staff productivity (En-route). KPI is ACFT/ATCO

KPI Staff Productivity - ENR **244 ACFT/ATCO**.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2021	70	67	88	92	94	100	110	94	69	76	81	88
2022	89	86	187	183	210	236	257	259	249	251	244	

KPI Staff Productivity - ENR



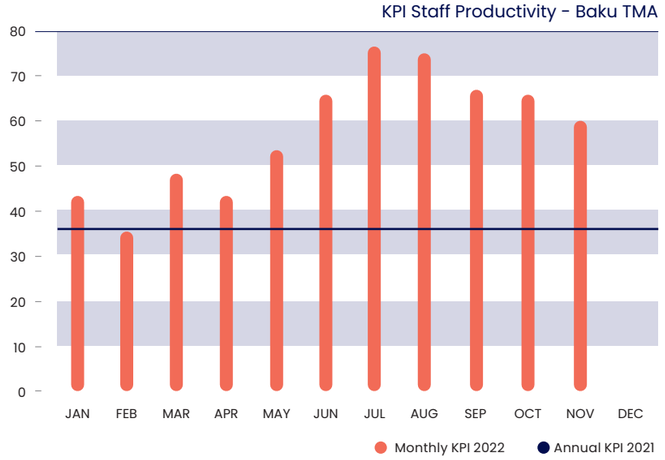
5.1.2 KPI – Staff productivity (Baku TMA)

Aerodrome movements data of Baku/Heydar Aliyev and other aerodromes within Baku TMA is used for calculation for KPI – Staff productivity (Baku TMA). KPI is ACFT/ATCO

KPI Staff productivity - Baku TMA **60 ACFT/ATCO**.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2021	22	22	29	29	32	42	48	48	40	40	39	45
2022	43	36	49	43	53	64	77	76	66	65	60	

KPI Staff Productivity - Baku TMA



5.1.3 KPI – Staff Productivity (ATCO's workload)

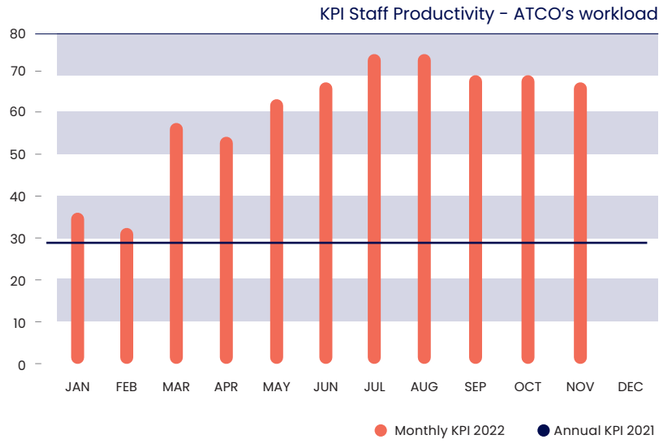
«KPI – Staff Productivity (ATCO's workload)» is calculated by the formula: the value of "flight hours controlled" is divided by the value of "number of ATCOs". KPI is Hour/ATCO

KPI Staff Productivity (ATCO's workload) **68 Hour/ATCO**.

$$\text{ATC Staff Productivity} = \frac{\text{Total Flight Duration}}{\text{Number of ATCO}}$$

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2021	21	20	27	28	29	34	37	35	27	29	29	33
2022	32	30	53	50	59	68	75	75	70	71	68	

KPI Staff Productivity - ATCO's workload



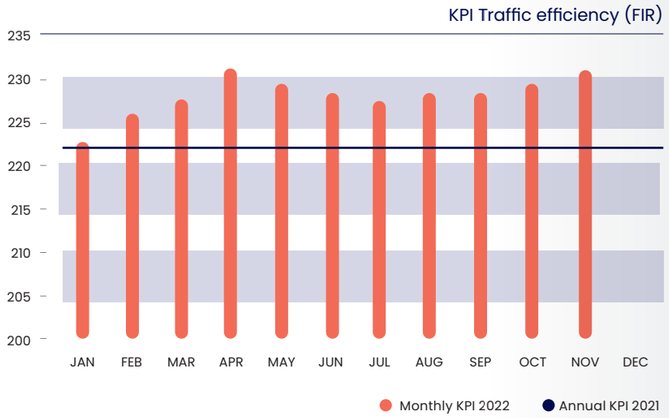
5.2 KPI – Traffic Efficiency

«KPI – Traffic Efficiency» is calculated by the formula the value of "total flown distance in nautical miles" is divided by the value of "number of ATCOs". KPI is NM/ACFT

$$\text{Efficiency} = \frac{\text{Total Distance}}{\text{Total Number of ACFT}}$$

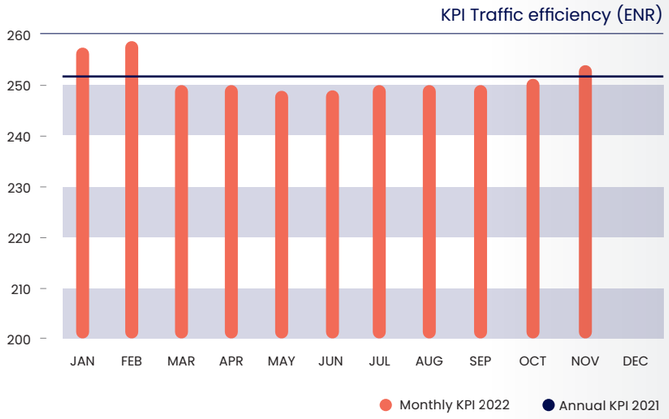
KPI Efficiency (FIR) **231 NM/ACFT**.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2021	218	219	224	228	225	224	226	223	218	218	220	221
2022	223	227	230	232	229	228	227	228	228	229	231	



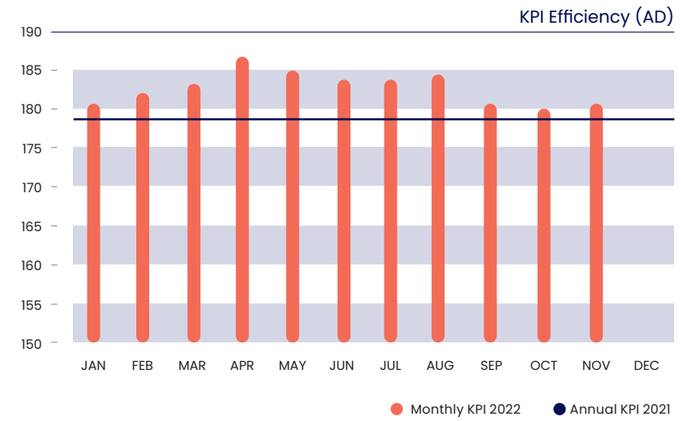
KPI Efficiency (ENR) **253 NM/ACFT**.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2021	242	244	251	255	256	258	259	257	250	250	251	255
2022	257	259	250	250	248	249	250	250	250	251	253	



KPI Efficiency (AD) **181 NM/ACFT**.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2021	172	175	175	177	173	175	181	183	184	183	183	182
2022	181	183	184	187	185	184	183	184	181	180	181	

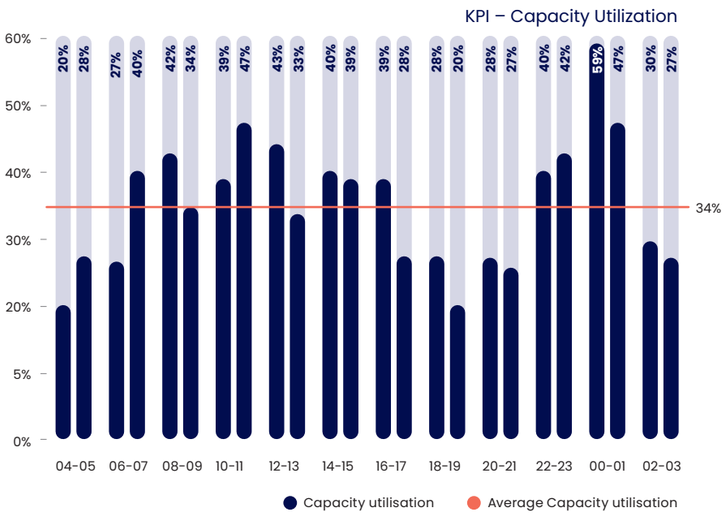


5.3 KPI – Capacity Utilization

Capacity utilisation 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%.

KPI Capacity Utilization **34%**



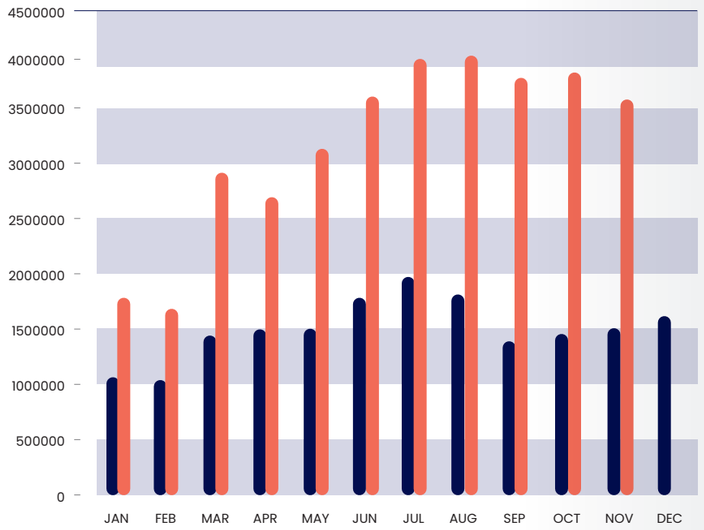
5.4 KPI – Distance flown

5.4.1 Baku FIR (Combined en-route traffic and aerodrome movements).

	Jan	Feb	Mar	Apr	May	Jun
2021	1 062 507	1 039 863	1 400 218	1 460 423	1 515 413	1 744 515
2022	1 629 180	1 527 413	2 833 417	2 711 652	3 161 927	3 618 131

	Jul	Aug	Sep	Oct	Nov	Dec
2021	1 964 845	1 796 349	1 370 123	1 442 685	1 484 969	1 661 711
2022	4 038 314	4 066 839	3 789 675	3 823 475	3 674 477	

Total Distance Flown (NM) - Baku FIR

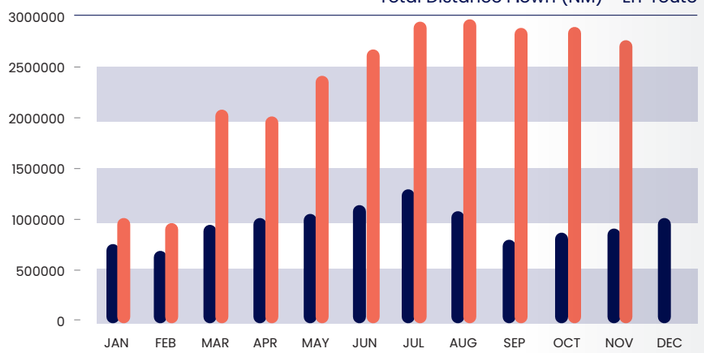


5.4.2 En-route traffic (en-route)

	Jan	Feb	Mar	Apr	May	Jun
2021	772 898	742 082	1 012 422	1 067 976	1 093 656	1 183 017
2022	1 041 895	1 012 702	2 132 958	2 093 070	2 391 688	2 693 565

	Jul	Aug	Sep	Oct	Nov	Dec
2021	1 298 719	1 106 725	792 689	869 290	924 948	1 025 002
2022	2 937 509	2 974 850	2 851 526	2 884 351	2 823 208	

Total Distance Flown (NM) - En-route

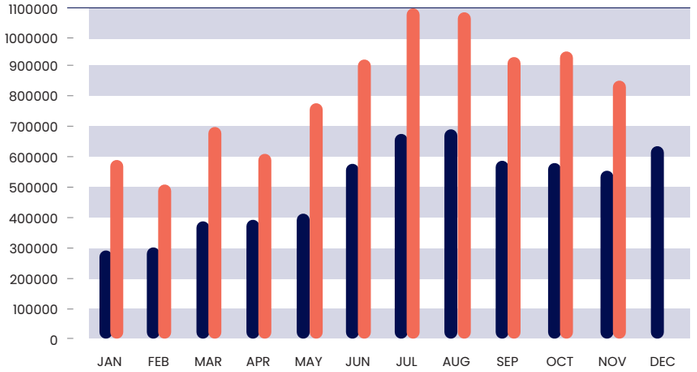


5.4.3 Aerodrome movements

	Jan	Feb	Mar	Apr	May	Jun
2021	289 609	297 781	387 796	392 447	421 757	561 498
2022	587 285	514 711	700 459	618 582	770 239	924 566

	Jul	Aug	Sep	Oct	Nov	Dec
2021	666 126	689 624	577 434	573 395	560 021	636 709
2022	1 100 805	1 091 989	938 149	939 124	851 269	

Aerodrome movements



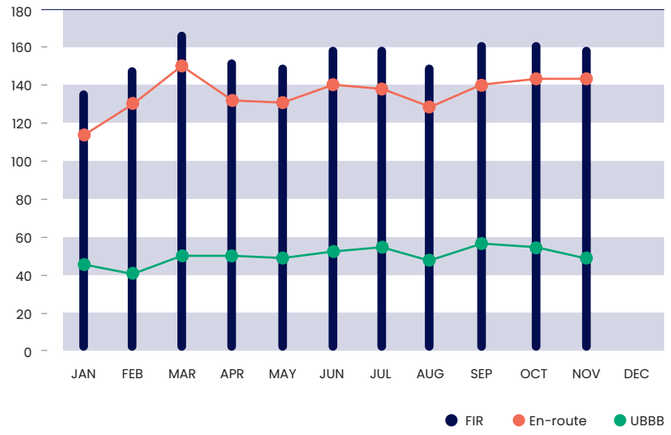
5.5 KPI – Number of airspace users

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) **161 Airlines**.
KPI - Number of airspace users (ENR) **144 Airlines**.
KPI - Number of airspace users (AD) **47 Airlines**.

KPI – Number of airspace users



5.6 KPI – CO2 emissions

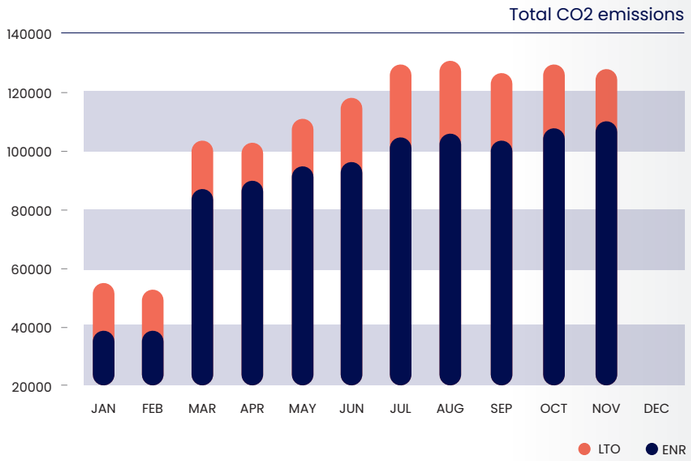
Aviation's impact on climate change is measured on an analysis of fuel use and CO2 reduction. AZANS does its part to reduce aviation's impact on the environment by introducing a range of initiatives to improve ATM efficiency:

- Improving airspace utilisation and route network;
- Efficient TMAs design;
- Required Navigation Performance Approach and Departure Procedures;
- Continuous Descent Approach;
- Priority clearance from air traffic control for taxiing and departure;
- Real time updates of current weather and wind conditions that allow the flight crew to modify their flight path.

All the KPI's for CO2 emission is calculated for FIR, En-route (ENR and Landing-take-off Operations (LTO).

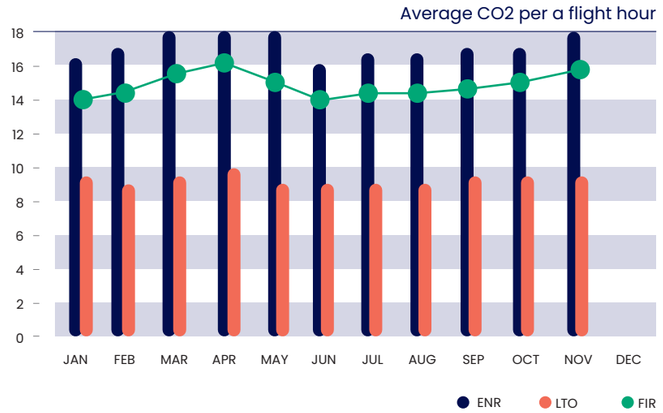
5.6.1 Total CO2 emissions

KPI - Total CO2 (FIR) **130 843 tons**.
KPI - Total CO2 (ENR) **109 936 tons.**
KPI - Total CO2 (LTO) **20 907 tons.**



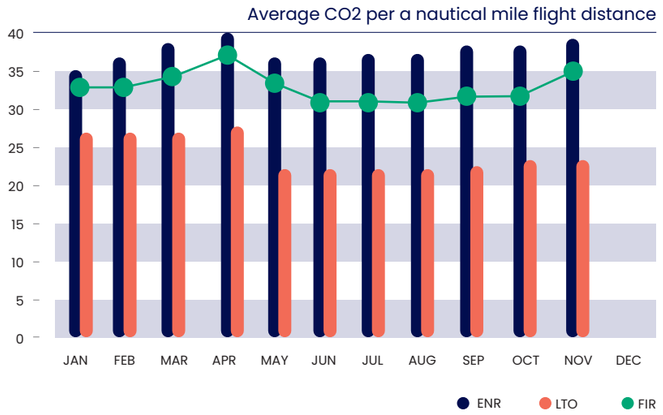
5.6.2 Average CO2 per a flight hour

KPI - Average CO2 per flight hour (FIR) **15.7 ton/hour**
KPI - Average CO2 per flight hour (ENR) **18.2 ton/hour**
KPI - Average CO2 per flight hour (LTO) **9.1 ton/hour**



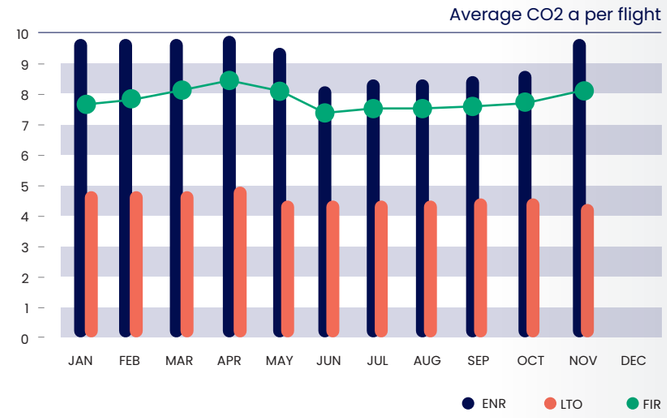
5.6.3 Average CO2 per a nautical mile flight distance

KPI - Average CO2 per NM (FIR) **36 kg/NM**
KPI - Average CO2 per NM (ENR) **39 kg/NM**
KPI - Average CO2 per NM (LTO) **25 kg/NM**



5.6.4 Average CO2 a per flight

KPI - Average CO2 per ACFT (FIR) **8.2 ton/ACFT**
KPI - Average CO2 per ACFT (ENR) **9.8 ton/ACFT**
KPI - Average CO2 per ACFT (LTO) **4.4 ton/ACFT**

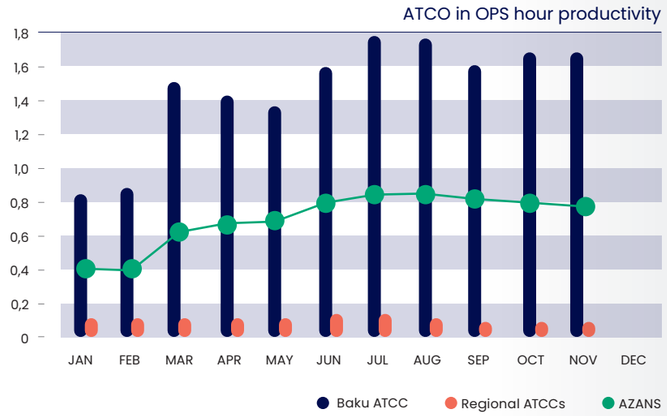


5.7 CANSO Productivity KPIs

5.7.1 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"

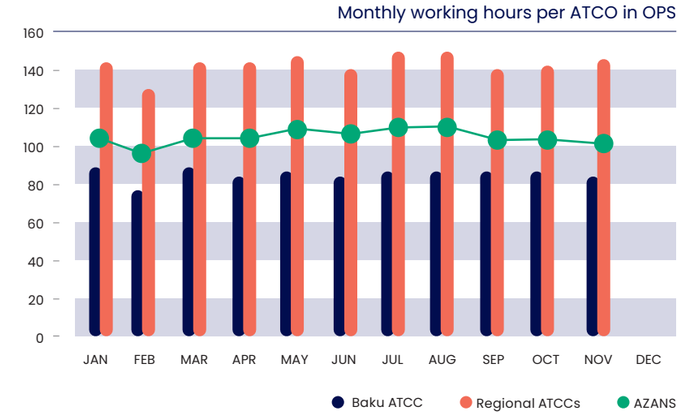
ATCO in OPS hour productivity (AZANS) **0.786**
ATCO in OPS hour productivity (Baku ATCC) **1.643**
ATCO in OPS hour productivity (Regional ATCCs) **0.06**



5.7.2 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 by "No of ATCO in OPS"

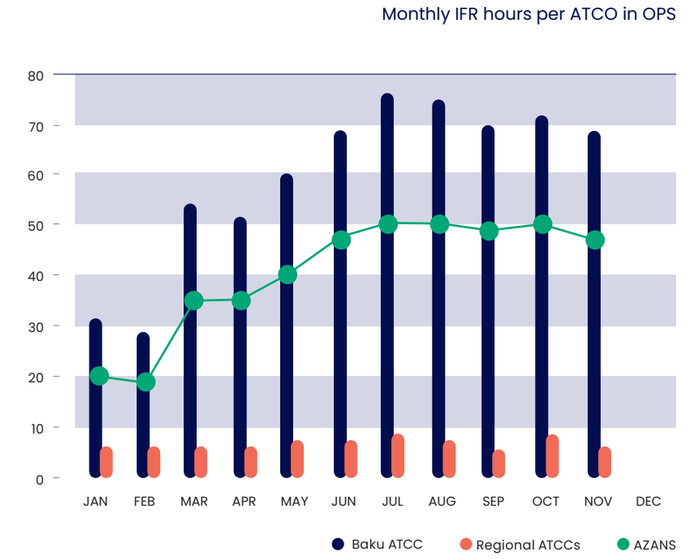
Monthly working hours per ATCO in OPS (AZANS) **103.6**
Monthly working hours per ATCO in OPS (Baku ATCC) **83.3**
Monthly working hours per ATCO in OPS (Regional ATCCs) **145.9**



5.7.3 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"

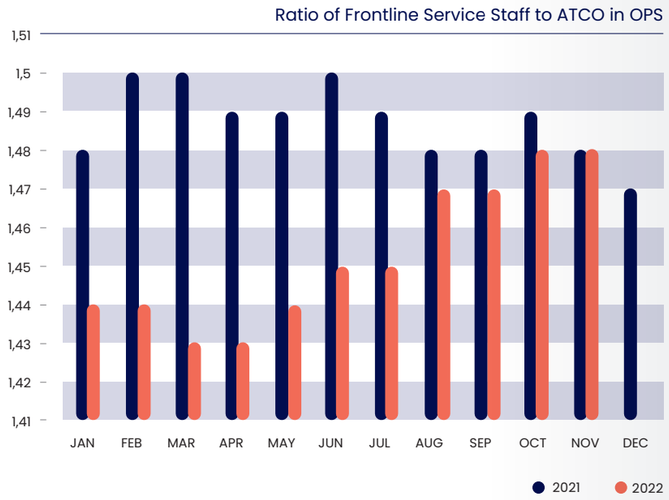
Annual IFR hours per ATCO in OPS (AZANS) **46.6**
Annual IFR hours per ATCO in OPS (Baku ATCC) **68.5**
Annual IFR hours per ATCO in OPS (Regional ATCCs) **5.8**



5.7.4 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 – **1.48**

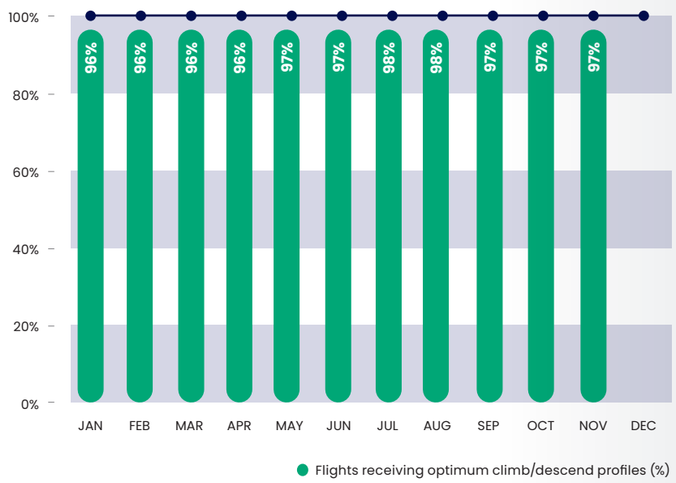


5.8 KPI – CCO/CDO operations

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 November 2022 **97%**



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