AZƏRAERONAVİQASİYA

AIR TRAFFIC
DEPARTMENT
AZERAERONAVIGATION

AIR TRAFFIC REPORT

2016

20 years
AZERAERONAVIGATION

FOREWORD

AIR TRAFFIC DEPARTMENT "AZERAERONAVIGATION" CELEBRATED 20 YEAR ANNIVERSARY IN 2016.

Within this period of time civil air traffic has been considerably increased, from 35000 IFR movements in 1996 to about 135000 IFR movements in 2016. Over the last two decades significant measures have been taken to meet traffic demand. Regular upgrade of equipment, implementation of improved ATC procedures and maintaining of personnel training/qualification policy allowed to increase the capacity to 65 ACFT per hour.

Development process has been continued in 2016. There are some of activities which are either completed or commenced this year:

• Azerbaijan has integrated into EUROCONTROL IFPS since January 07, 2016. It minimises missing FPL factor and eliminates the chance for errors in FPL.

• CJSC "Azerbaijan Hava Yollari" took decision to build in cooperation with THALES new Airspace Supervision and Efficiency Center (ASEC). The aim of ASEC is the effective utilization of the airspace of the Republic of Azerbaijan. There are some main objectives of ASEC:

- Market research for potential users of the Azerbaijani airspace. Identification of potential users of the Azerbaijani airspace. Cooperation with the relevant divisions of the airspace users;

- Conduct of service quality survey;

- Route-network development;

- Monitoring and analysis of air traffic;

- Air Traffic Flow and Capacity Management;

- Conduct of Fast-time simulation (development of recommendations on the efficient utilization of the ATS airspace, carry out of risk assessment, ATC sectors' capacity evaluation (capacity vs traffic), development of recommendations and proposals for ATS airspace structure improvement, development of recommendations for improving ATC procedures, simulation of implementation of changes in the ATS airspace structure)

- Development of strategic development plans based on forecasts, simulation results, new standards and requirements.

• Implementation of cyber security in all of the branches of Air Traffic Department "Azeraeronavigation".

• Air Traffic Department "Azeraeronavigation" signed a contract with IDS for implementation of "AIS to AIM concept". Detailed road-map covers processes from the data validation to charting. Implementation is starting in January 2017.

1. THE AIRSPACE OF THE REPUBLIC OF AZERBAIJAN.
BAKU FLIGHT INFORMATION REGION (UBBA FIR).

135920

THE NUMBER OF FLIGHTS UNDER INSTRUMENT FLIGHT RULES [IFR]

6.2%

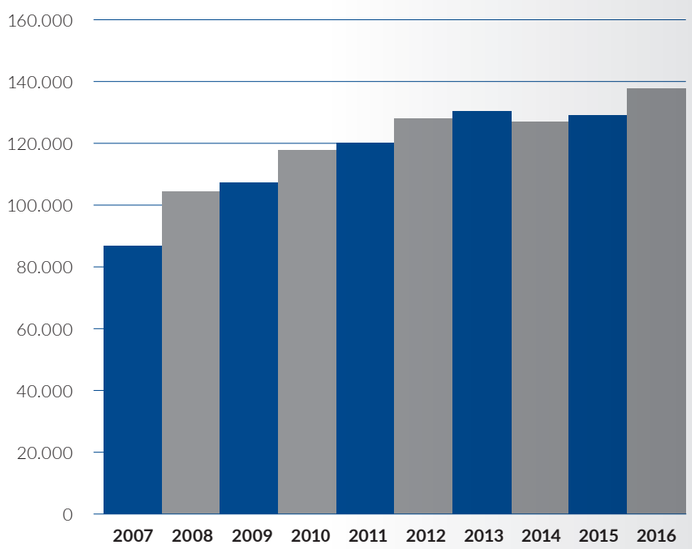
A GROWTH COMPARED TO 2015

372

AVERAGE FIGURE OF NUMBER OF IFR FLIGHTS

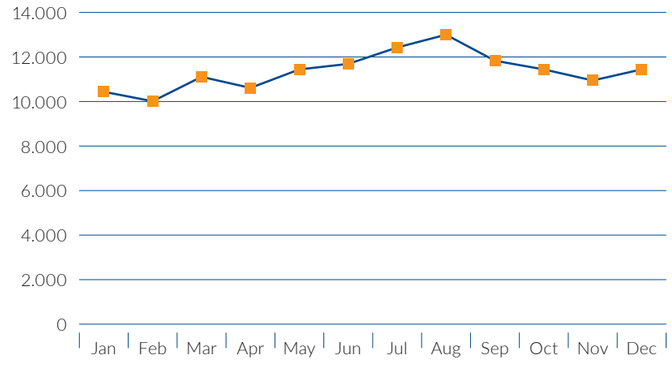
1.1 Traffic development

In Azerbaijan, the number of flights under instrument flight rules (IFR) recorded in 2016 increased to a total of 135920 and it is a growth of 6.2% compared to 2015. Growth of both types of traffic, movements at the aerodromes and transit flights, has been recorded. Average number of IFR flights in Baku FIR has reached 372 aircraft per day.



Picture 1.1 Baku FIR traffic development by year.

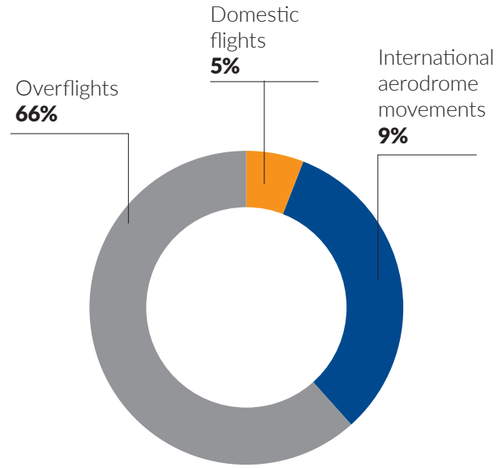
Most month traffic was recorded in August (12914 IFR flights) and peak day was recorded on August 26, 2016 (448 IFR flights).



Picture 1.2 Baku FIR traffic development by month of the year.

1.2 Traffic segments

In 2016, 66% of the flights in Baku FIR was overflights, 5% was domestic flights within Azerbaijan and the remaining 29% was international flights, arriving at or departing from airports of the Republic of Azerbaijan. Share of movements at the aerodromes of the Republic of Azerbaijan decreased by 2% compared with 2015 (1% increase of domestic and 3% decrease of international flights), when the growth of 2% was recorded of transit traffic through the airspace of the Republic of Azerbaijan.



Picture 1.3 Baku FIR traffic segments

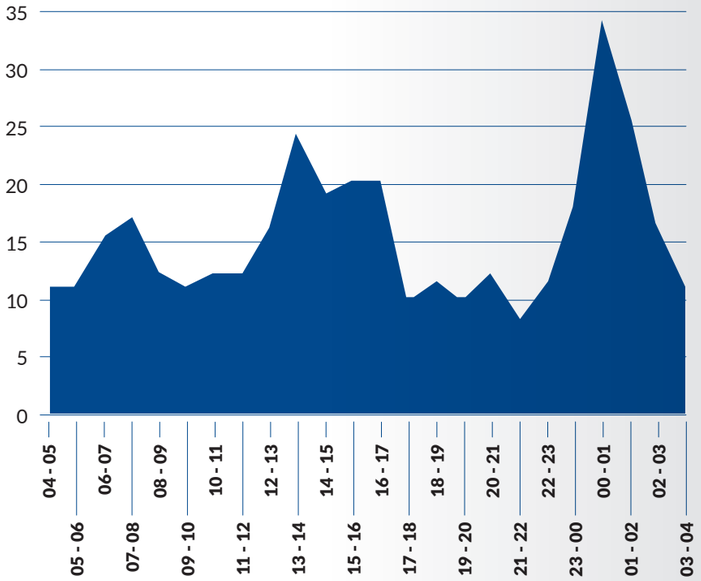
1.3 Capacity vs traffic

Existing capacity of Baku FIR of 65 ACFT/hour meets traffic demand. The highest traffic volume of 43 ACFT/hour were recorded on February 29, 2016 and December 17, 2016 between 00:01 and 01:00 UTC.

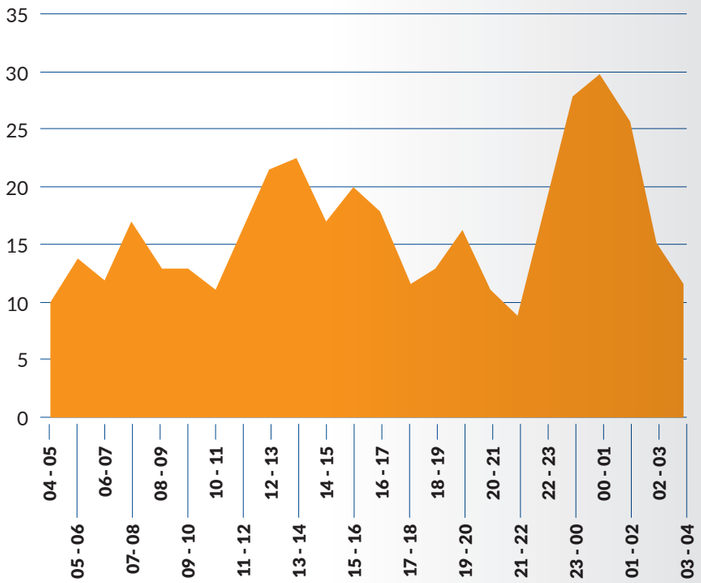
THE MOST CONGESTED PEAK HOURS ARE:

- 34 ACFT/hour between 00:01 and 01:00 UTC (Winter season).
- 30 ACFT/hour between 00:01 and 01:00 UTC (Summer season);

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



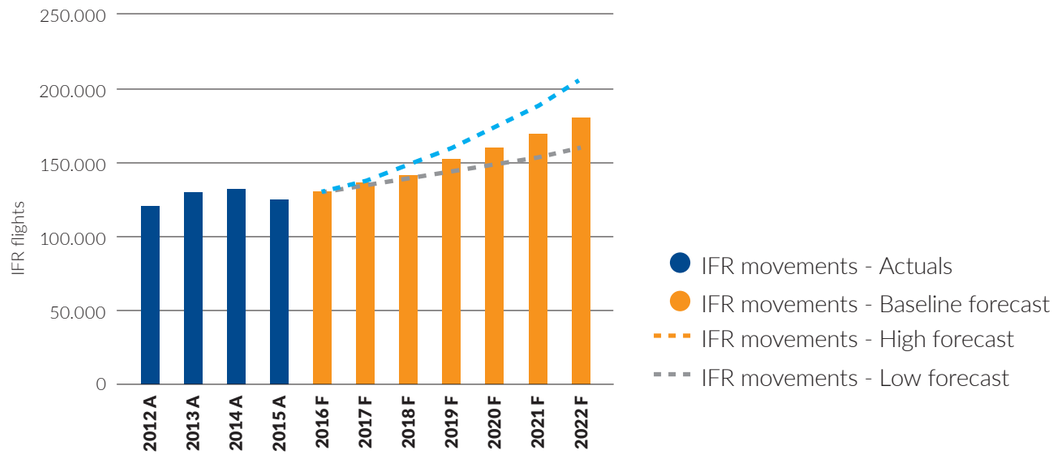
Picture 1.4 Hourly traffic volume vs Baku FIR capacity (WINTER)



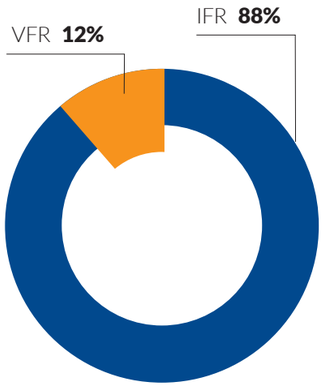
Picture 1.5 Hourly traffic volume vs Baku FIR capacity (SUMMER)

1.4 The EUROCONTROL Seven-Year forecast predicts an average annual traffic growth between 2.6% and 6.6%, with an average baseline growth of 4.4% throughout the planning cycle.

Azerbaijan - Annual IFR Movements



1.5 The total number of flights recorded in 2016 is 153682 where 135920 flights are under instrument flight rules (IFR) and 17762 flights are under visual flights rules (VFR). Average number of flights in Baku FIR is 420 aircraft per day.



2. OVERFLIGHT

87415

THE NUMBER OF OVERFLIGHTS RECORDED IN 2016

6.3%

A GROWTH COMPARED TO 2015

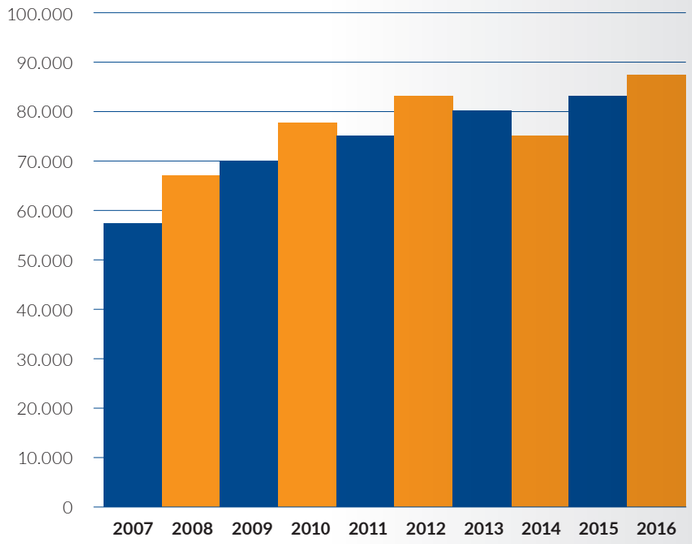
239

AVERAGE FIGURE OF A NUMBER OF OVERFLIGHTS

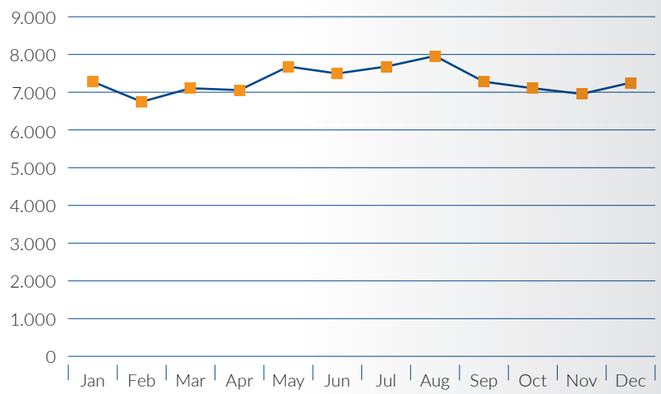
Most month traffic was recorded in August (7940 ACFT) and peak day was recorded on April 30, 2016 and July 1, 2016 (286 ACFT).

2.1 Traffic development

The number of overflights recorded in 2016 increased to a total of 87415 and it is a growth of 6.3% compared to 2015. Average figure of a number of overflights in Baku FIR in 2016 is 239 aircraft per day.



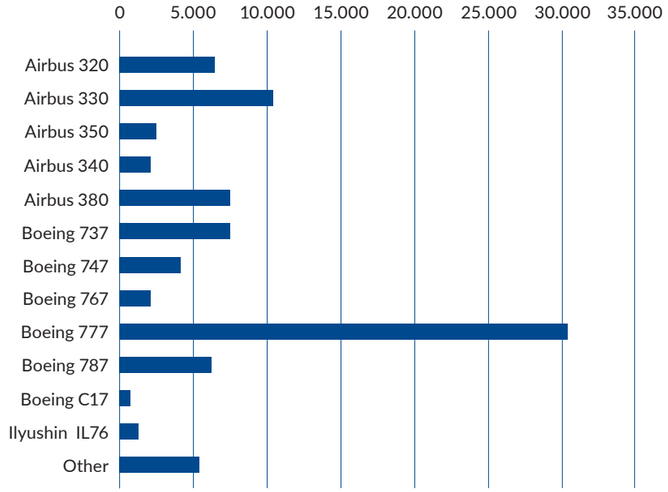
Picture 2.1 Overflight traffic development by year



Picture 2.2 Overflight traffic development by month of the year

2.3 Aircraft types

More than 80% of aircraft of the overflight traffic is wide-body long-distance aircraft.



Picture 2.3 Types of aircraft of the overflight traffic

2.4 Traffic flows

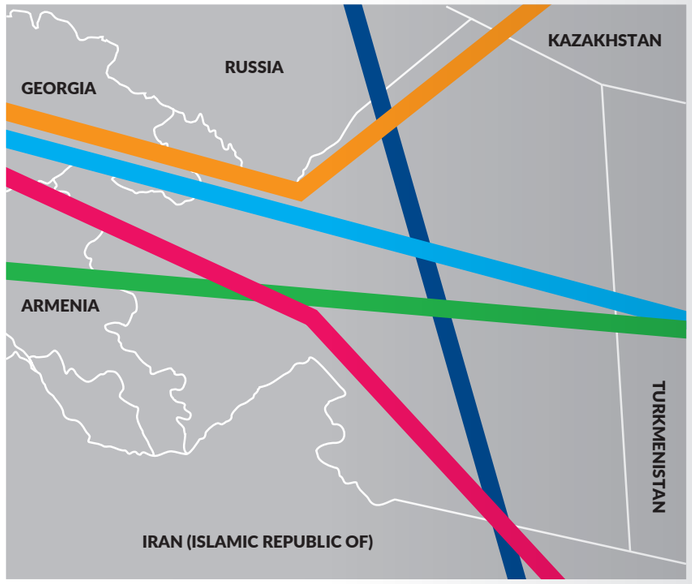
Complicated political processes in a number of neighboring regions are still existed.

Aircraft operators had to avoid the airspaces of eastern Ukraine, Iraq and Syria. Also Simferopol FIR has been closed since April 06, 2014. These restrictions impacted to the direction of traffic flows through the airspace of the Republic of Azerbaijan.

The main traffic flows over Azerbaijan in 2016 are shown in the picture 2.4. The main flows run in East - West and v.v. direction. Traffic flow Turkmenistan - Russia is completely disappeared as a consequence of limitation of availability of part of the Ukrainian airspace since 2014. Portion of this flow has been rerouted in the direction from Turkmenistan to Georgia and v.v. Compared to previous years, new traffic flow Armenia – Iran and v.v. presented in the traffic flows picture and it shares 3% of a total traffic. AWY P567 MATAL – ULDUS was heavily loaded during summer 2016 because of effects of seasonal jet streams and network changes in adjacent airspaces (Iran, Afghanistan, Pakistan, India)

- Georgia - Turkmenistan and v.v. **52%**
- Georgia - Kazakhstan and v.v. **12%**
- Iran - Russia and v.v. **24%**
- Turkmenistan - Armenia and v.v. **4%**
- Iran - Armenia and v.v. **3%**

Other directions (Total) **5%**

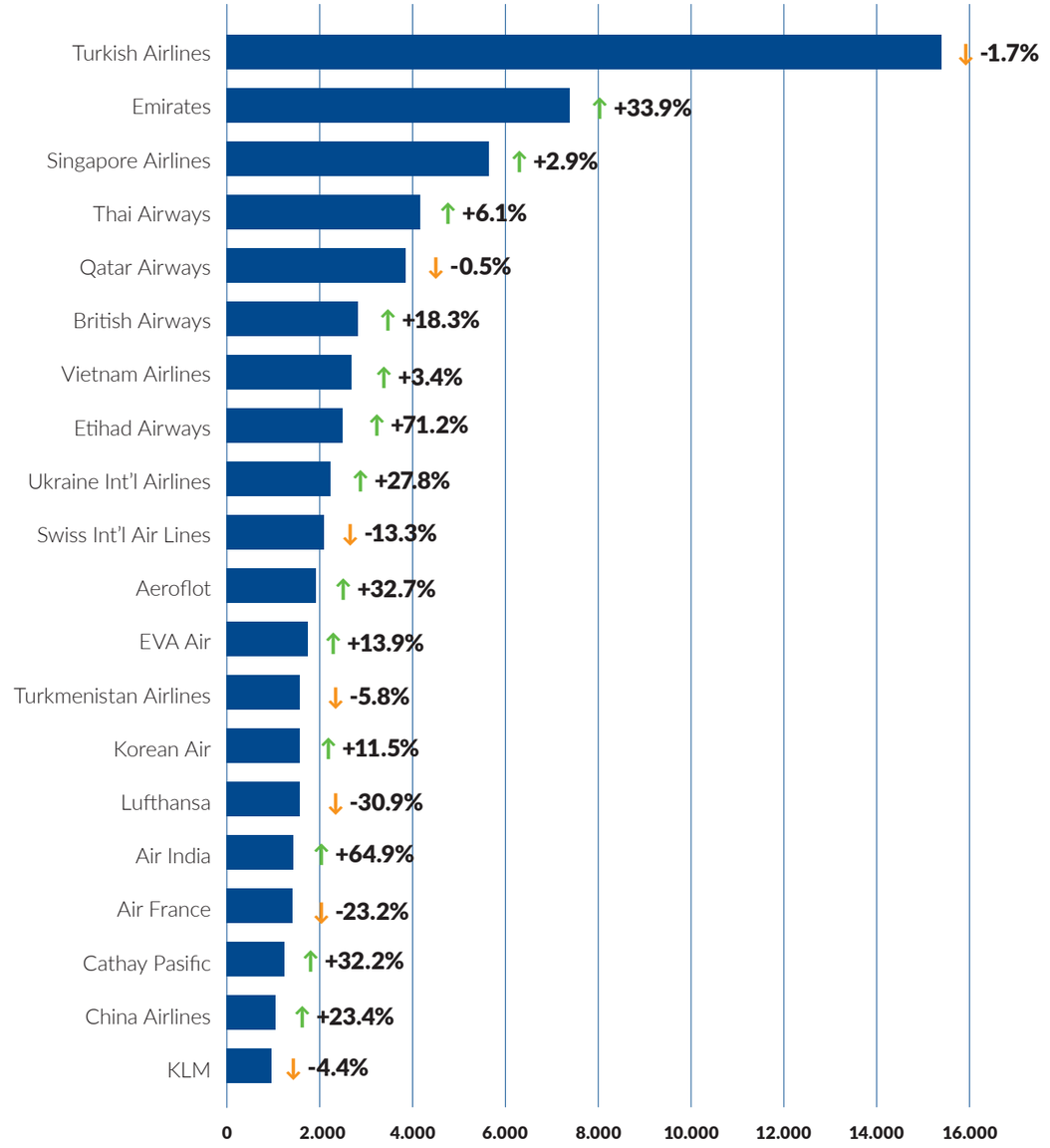


Picture 2.4 Main overflight traffic flows

2.5 Airspace users

More than 70 different airlines (passenger and cargo) make scheduled flights through the airspace of the Republic of Azerbaijan. Scheduled flights form 95% of the total number of transit flights. 2016 is marked with stability of the intensity of transit flights throughout the year (no falls) with average 239 ACFT/day and peak in August with average 257 ACFT/day.

List of airlines has not been noticeably changed during the year. Only Lufthansa and Air France have reduced the number of flights through the airspace of the Republic of Azerbaijan when Emirates, Etihad, British Airways, Cathay Pacific, Aeroflot, China Airlines and Ukraine Int'l Airlines have significantly increased it.



3. BAKU/HEYDAR ALIYEV INTERNATIONAL AIRPORT.

(IATA: **GYD,** ICAO: **UBBB**)

46001

THE NUMBER OF FLIGHTS UNDER INSTRUMENT FLIGHT RULES [IFR]

6.6%

A GROWTH COMPARED TO 2015

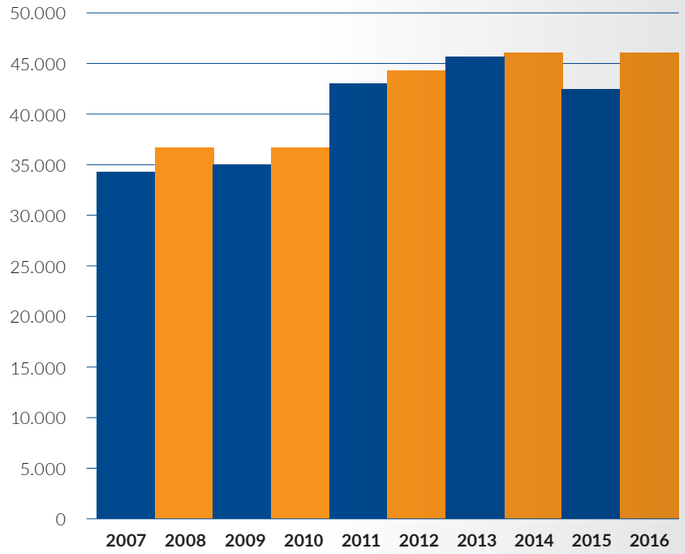
126

AVERAGE FIGURE OF NUMBER OF IFR FLIGHTS

3.1 Traffic development

Baku/Heydar Aliyev International airport is the air gate of the capital of the Republic of Azerbaijan. It is the busiest airport in Azerbaijan and in the Caucasus region. Year 2016 is marked by conducting the "Formula 1" auto racing in Baku. This sporting event, which played a role of advertising of Baku and Azerbaijan in the world and simplification of visa issue procedures (electronic visa) effected to the growth of tourist flow in the second part of the year. Considering the geographical location of Azerbaijan, Baku/Heydar Aliyev International Airport is the main gateway for guests. Baku/Heydar Aliyev International Airport served 3.26 million passengers in 2016, which is a record figure in the history of Civil Aviation.

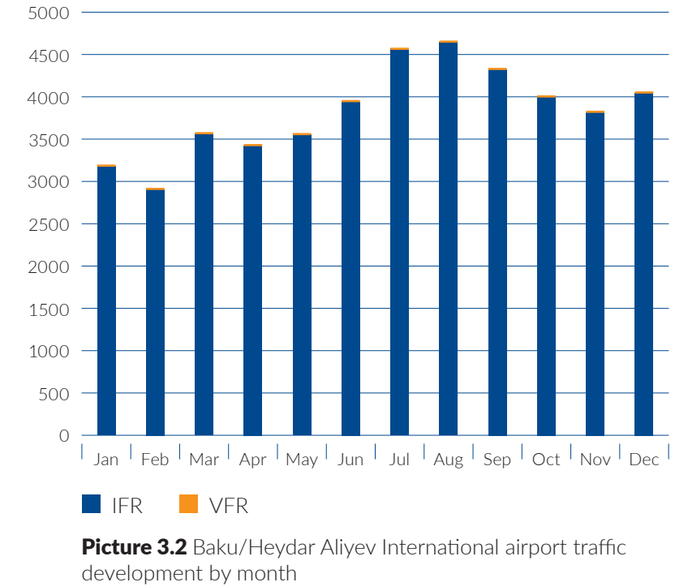
Total number of aerodrome movements recorded in 2016 is 46001 aircraft. Traffic increased by 6.6% compared to 2015. Average figure of number of aerodrome movements at the Baku/Heydar Aliyev International airport is 126 aircraft per day.



Picture 3.1 Baku/Heydar Aliyev International airport traffic development by year

July - September is the most congested period time. Most month traffic was recorded in August (4664 movements) and peak day was recorded on July 11, 2016 (172 movements).

The highest traffic volume of 17 ACFT/hour was recorded on October 23, 2016 between 11:01 and 12:00 UTC.

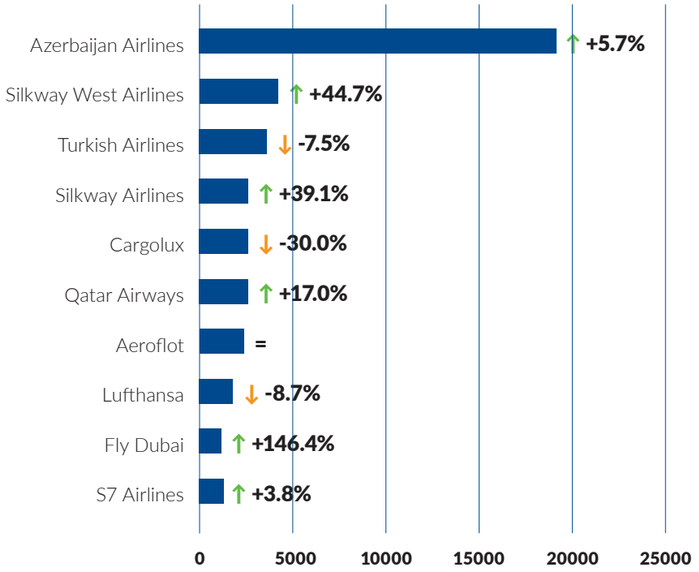


Picture 3.2 Baku/Heydar Aliyev International airport traffic development by month

3.2 Airlines

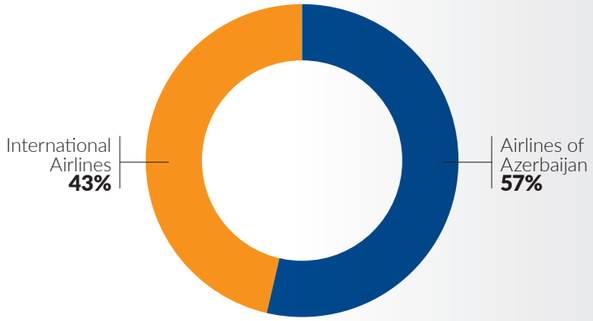
Baku/Heydar Aliyev International airport is the home base for "Azerbaijan Airlines" national career of Azerbaijan and aircompanies of "Silkway Group". More than 20 different airlines (passenger and cargo) make scheduled flights to Baku: Turk HavaYollari, CARGOLUX, British Airways, Qatar Airways, Lufthansa, Aeroflot, Fly Dubai etc.

Iraqi Airways, Fly Baghdad and Pobeda began scheduled flights to Baku in 2016.



Picture 3.3 Top 10 airspace users

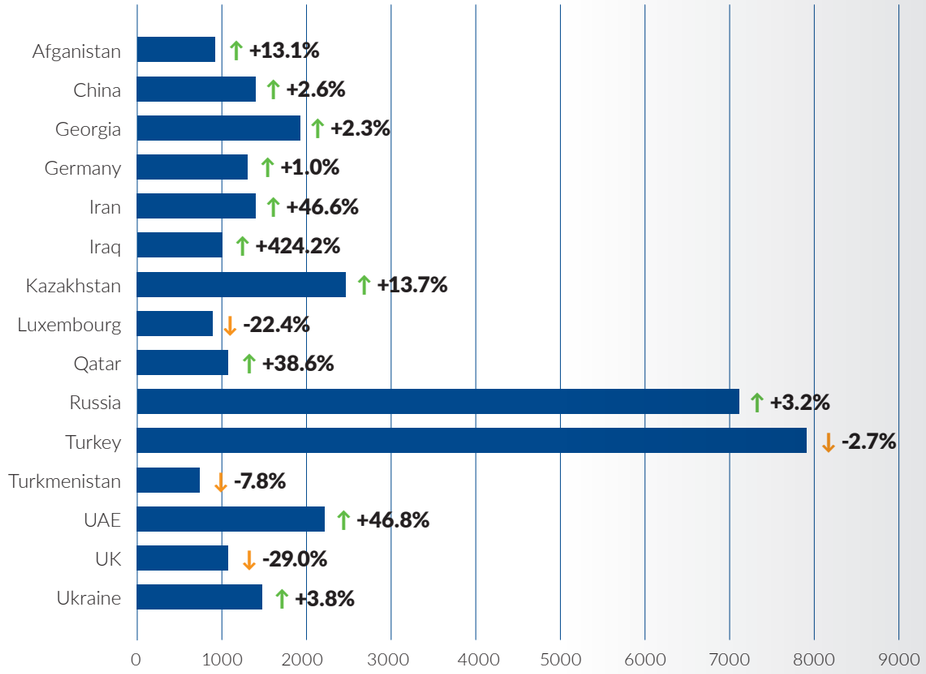
Share of international airlines decreased by 3% compared with 2015 (some airlines stopped flying to Baku/Heydar Aliyev International airport (British Airways and Austrian Airlines)), when the growth of 3% was recorded of share of airlines of Azerbaijan.



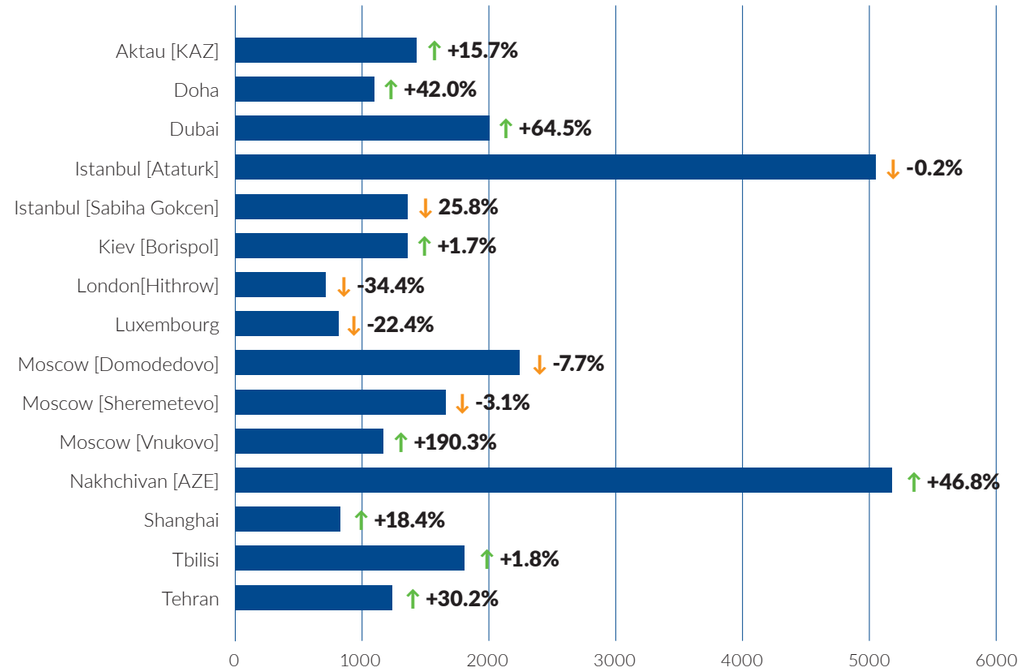
Picture 3.4 Share of traffic: International Airlines vs Airlines of Azerbaijan

3.3 Destinations

Scheduled flights are performed from Baku to more than 20 countries and to more than 50 destinations.



Picture 3.5 Top destinations by country. Comparison with 2015

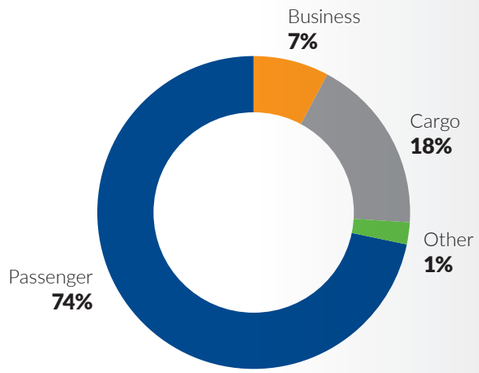


Picture 3.6 Top destinations by airport. Comparison with 2015

3.4 Type of flights

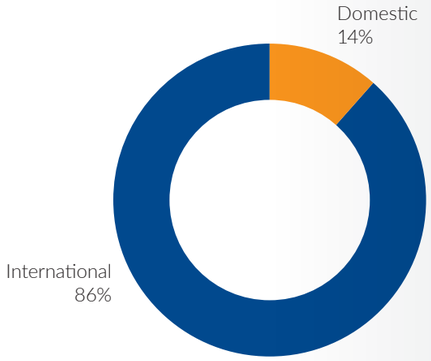
Infrastructure of the International airport Heydar Aliyev allows to provide service to all types of flight. Two passenger terminals ensures capacity of 6 million passenger per year. Separate terminal and apron are allocated for business aviation. Baku Cargo Terminal is one of the biggest and most technically advanced cargo terminals in CIS. The technical base of the terminal provides storage and processing of all kinds of cargoes in conformity to the world standards.

Growth of share of passenger flights by 1% is recorded when share of business aviation flights is decreased by 1% compared with 2015.



Picture 3.7 Share of traffic: types of flight

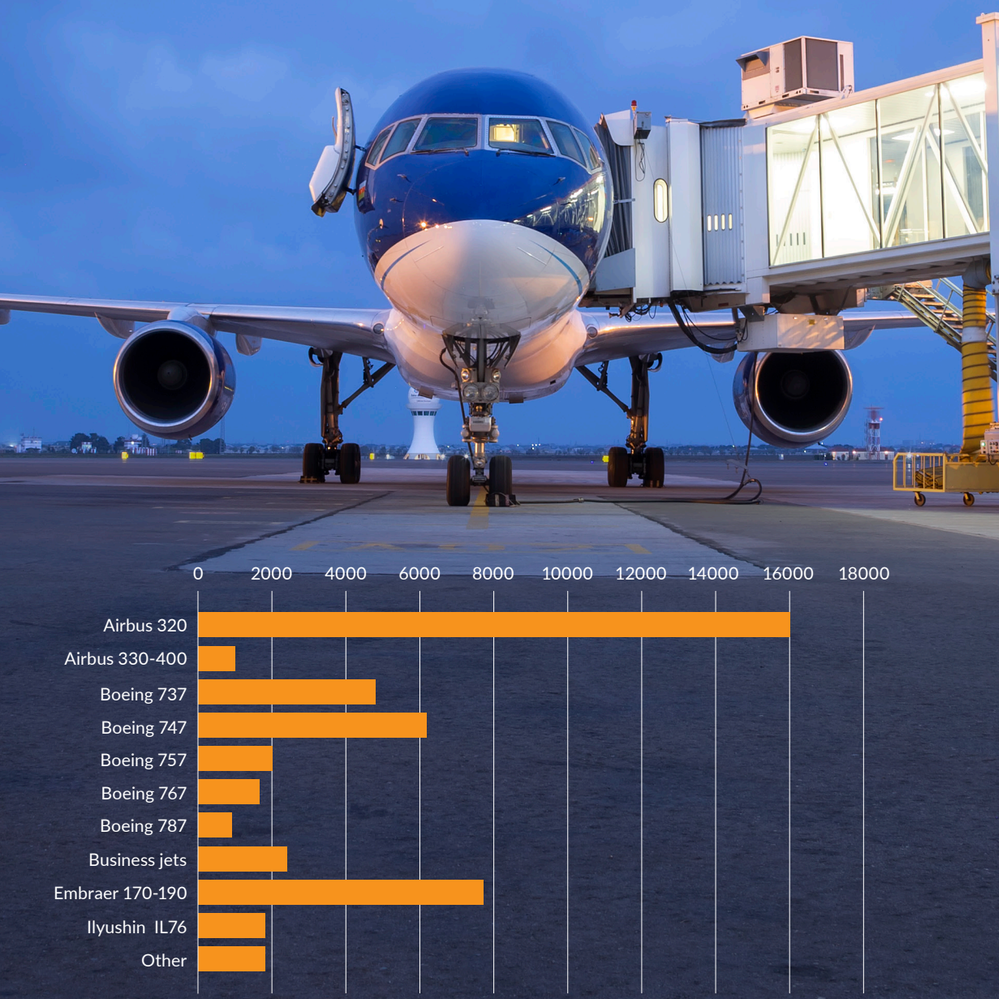
Share of traffic: international flights vs domestic flights has slightly changed when compared with 2015. Share of domestic flights increased by 2% when share of international flights decreased by 2%.



Picture 3.8 Share of traffic: international flights vs domestic flights

3.5 Types of aircraft

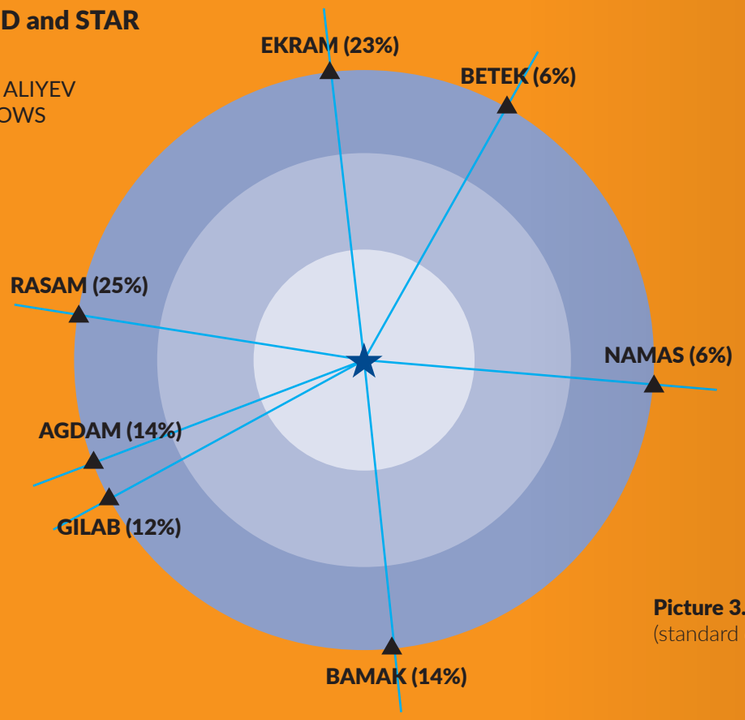
International airport Heydar Aliyev is capable to provide services to all types of aircraft, including Airbus 380 and Antonov 225 “Mriya”.



Picture 3.9 Types of aircraft

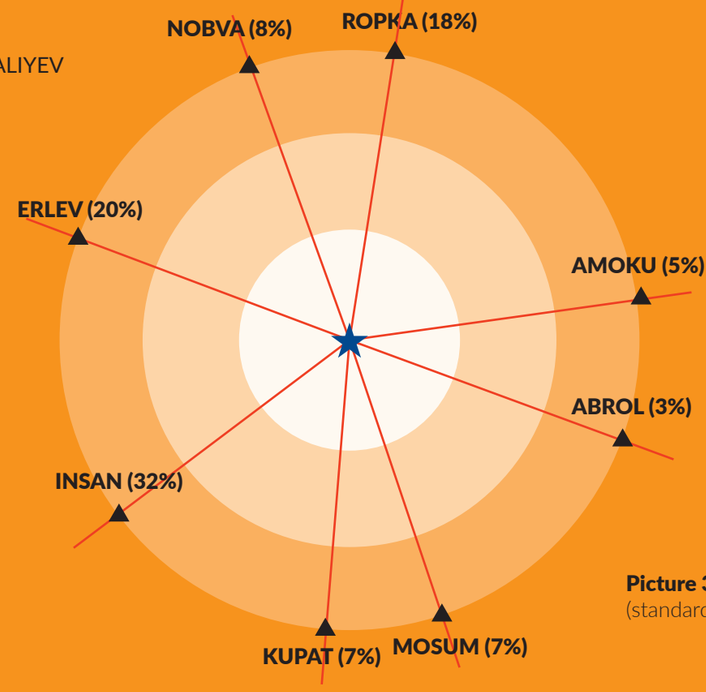
3.6 Load of SID and STAR

BAKU/HEYDAR ALIYEV
DEPARTURE FLOWS



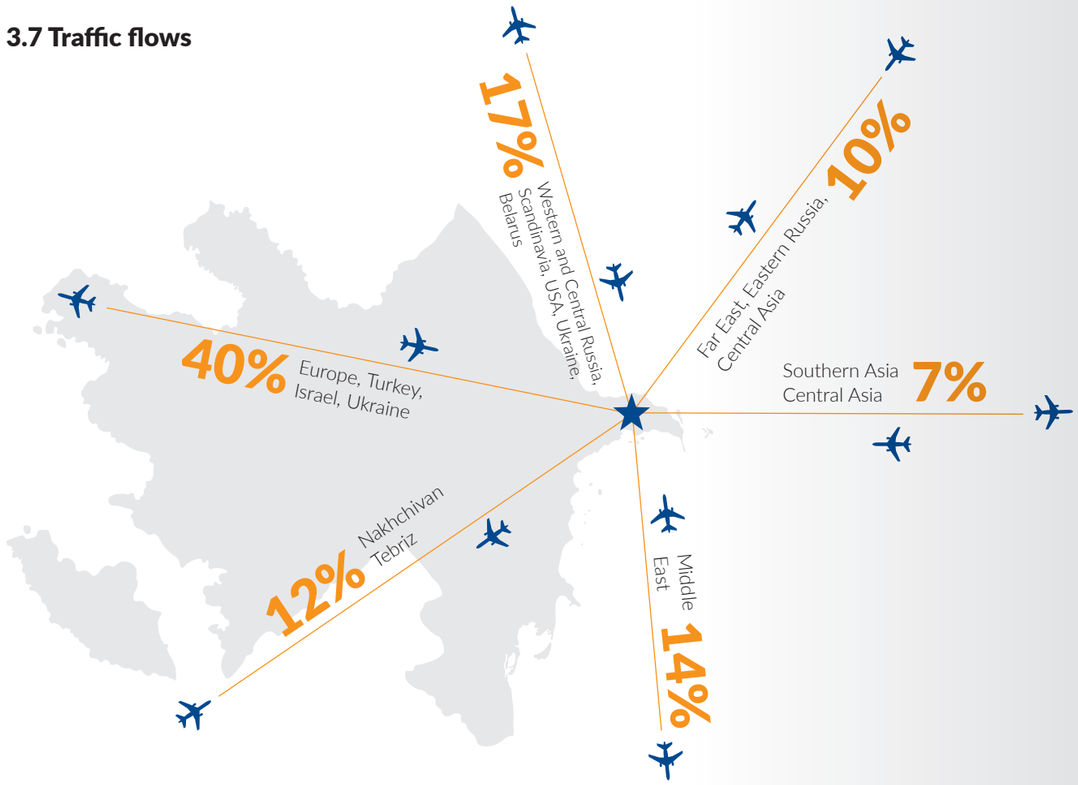
Picture 3.10 Load of SID
(standard departure)

BAKU/HEYDAR ALIYEV
ARRIVAL FLOWS

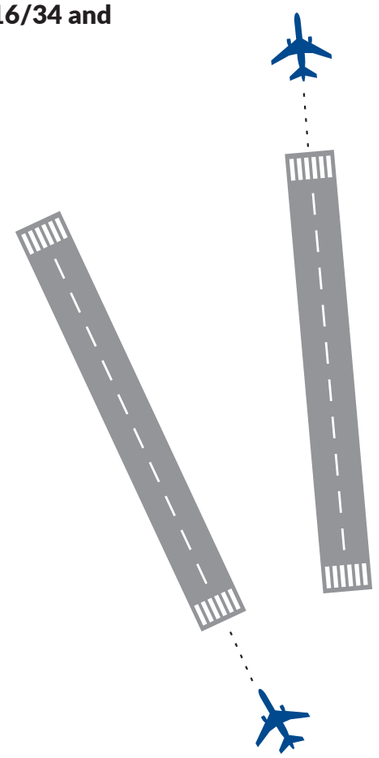


Picture 3.11 Load of STAR
(standard arrival)

3.7 Traffic flows



3.8 Use of RWY16/34 and RWY17/35



Take-off
RWY 16/34 **44%**
RWY 17/35 **56%**

Landing
RWY 16/34 **48%**
RWY 17/35 **52%**

Total
RWY 16/34 **46%**
RWY 17/35 **54%**

4. REGIONAL AERODROMES

4.1 Nakhchivan International airport (ICAO: UBBN)

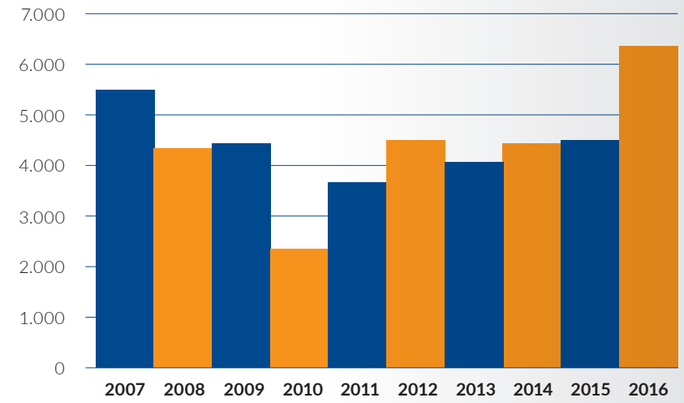
Nakhchivan International airport is the only air gateway of the Nakhchivan Autonomous Republic, a landlocked exclave of Azerbaijan. It was built in 1976 and completely reconstructed in 2002-2004. Scheduled flights to Baku, Istanbul and Moscow are performed from Nakhchivan.

Total number of IFR movements in 2016 is 6344 aircraft. Traffic increased by 39.8 compared to 2015. Average figure of number of aerodrome movements at the Nakhchivan International airport in 2016 is 18 aircraft per day.

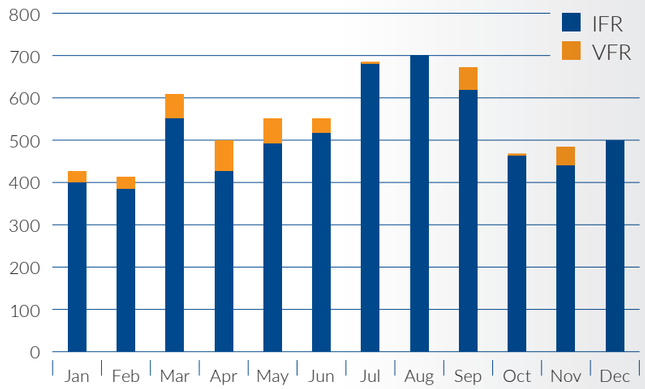
6344
TOTAL NUMBER OF IFR MOVEMENTS

39,8%
TRAFFIC INCREASED COMPARED TO 2015

18
AVERAGE FIGURE OF NUMBER OF AERODROME MOVEMENTS



Picture 4.1 Nakhchivan International airport traffic development by year



Picture 4.2 Nakhchivan International airport traffic development by month of the year

There are 5 international airports (Ganja, Nakhchivan, Gabala, Lenkaran, Zaqatala) and 2 domestic airports (Yevlakh and Baku (Zabrat)) in Azerbaijan.

4.2 Ganja International airport (ICAO: UBBG)

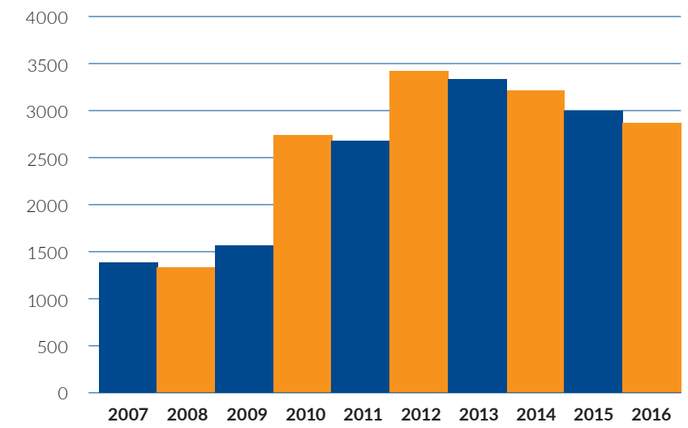
Ganja International airport is an airport serving Ganja, the second largest city in Azerbaijan. It was reconstructed in 2006. Scheduled flights to Baku, Nakhchivan, Istanbul, Moscow, St. Petersburg are performed from Ganja.

Total number of IFR movements in 2016 is 2385 aircraft. Traffic decreased by 20.5% compared to 2015. Average figure of number of aerodrome movements at the Ganja International airport in 2016 is 7 aircraft per day.

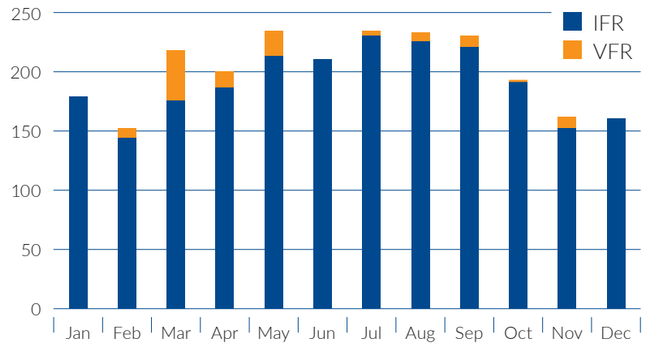
2385
TOTAL NUMBER OF IFR MOVEMENTS

20,5%
TRAFFIC DECREASED COMPARED TO 2015

7
AVERAGE FIGURE OF NUMBER OF AERODROME MOVEMENTS



Picture 4.3 Ganja International airport traffic development by year



Picture 4.4 Ganja International airport traffic development by month of the year

4.3 Gabala International airport (ICAO: UBBQ)

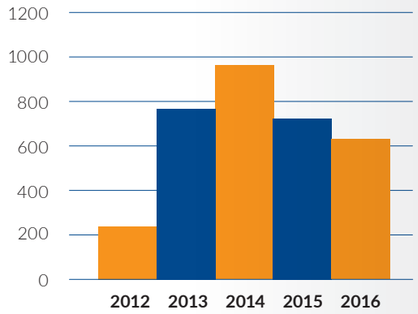
Gabala International airport is an airport of Gabala city located in the north-west of Azerbaijan. Construction of Gabala airport started in 2011 and was inaugurated by the President of the Republic of Azerbaijan, Ilham Aliyev on 17 November 2011.

Total number of IFR movements in 2016 is 679 aircraft. Traffic decreased by 8.7% compared to 2015. Average figure of number of aerodrome movements at the Gabala International airport in 2016 is 2 aircraft per day.

679
TOTAL NUMBER OF IFR MOVEMENTS

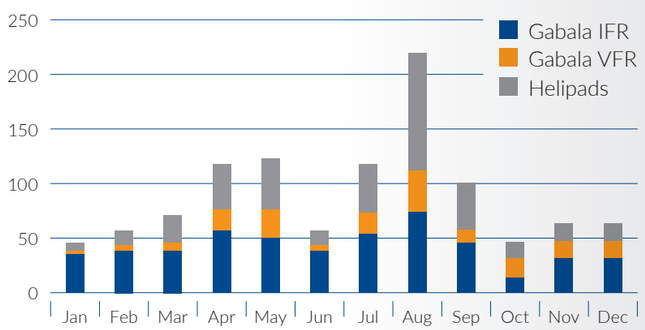
8.7%
TRAFFIC DECREASED COMPARED TO 2015

2
AVERAGE FIGURE OF NUMBER OF AERODROME MOVEMENTS



Picture 4.5 Gabala International airport traffic development by year

Gabala TWR is also responsible for ATS provision for VFR flights to/from helipads in the vicinity of Gabala aerodrome (Gabala, Sheki, Ismailli).



Picture 4.6 Gabala International airport and helipads traffic development by month of the year

4.4 Lenkaran International airport (ICAO: UBBL)

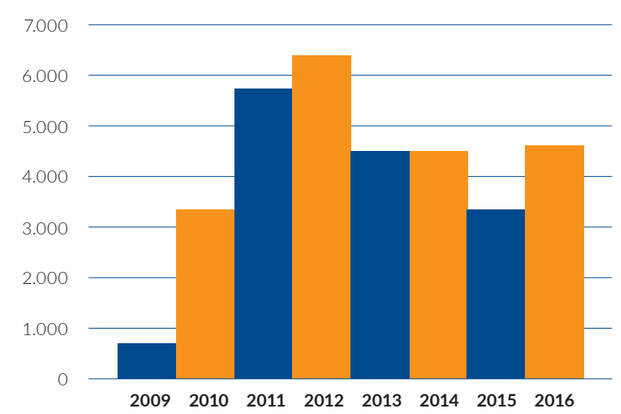
Lenkaran International airport is an airport in the town of Lenkaran in the south-east of Azerbaijan. Reconstruction of the Lenkaran airport was started in 2005 and was finished in 2008. Scheduled flights to Baku, Moscow, St.Peterburg, Surgut and Ekaterinburg are performed from Lenkoran.

Total number of IFR movements in 2016 is 462 aircraft. Traffic increased by 37.5% compared to 2015. Average figure of number of aerodrome movements at the Lenkaran International airport in 2016 is 2 aircraft per day.

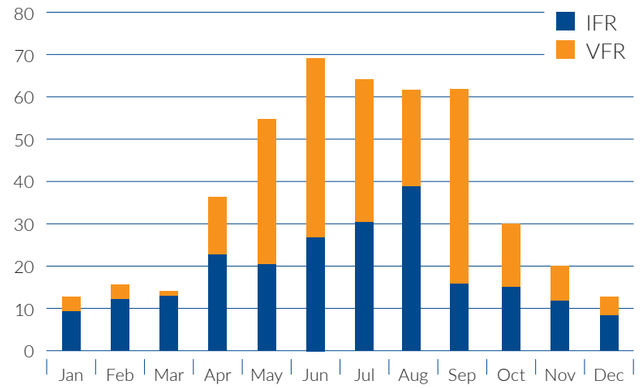
462
TOTAL NUMBER OF IFR MOVEMENTS

37.5%
TRAFFIC INCREASED COMPARED TO 2015

2
AVERAGE FIGURE OF NUMBER OF AERODROME MOVEMENTS



Picture 4.7 Lenkaran International airport traffic development by year



Picture 4.8 Lenkoran International airport traffic development by month of the year

4.5 Zagatala International airport (ICAO: UBBY)

Zagatala International airport is an airport serving Zagatala city. It is located at the southern foot of the Main Caucasus range. The latest reconstruction of the airport terminal was completed in 2008, after which the airport received an international status. Zagatala International airport has been closed since March 2014 due to reconstruction works on the runway.

4.6 Yevlakh airport (ICAO: UBEE)

Yevlakh airport is an airport serving the city of Yevlakh. Complete reconstruction of Yevlakh airport was finished in September 2013. Yevlakh airport does not have status of “international airport”. No regular flights are performed to/from Yevlakh airport.

Total number of aerodrome movements in 2016 is 1179 aircraft. Traffic increased by 50.4% compared to 2015. Average figure of number of aerodrome movements at the Yevlakh airport in 2016 is 4 aircraft per day.

1179

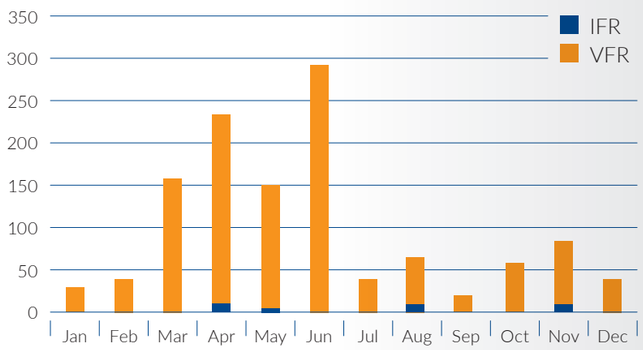
TOTAL NUMBER OF IFR MOVEMENTS

50.4%

TRAFFIC INCREASED COMPARED TO 2015

4

AVERAGE FIGURE OF NUMBER OF AERODROME MOVEMENTS



Picture 4.9 Yevlakh airport traffic development by month of the year

4.7 Baku/Zabrat airport (ICAO: UBTT)

Baku/Zabrat airport is home base airport of “Silk Way Helicopter Services”(SWHS) company. Fleet of SWHS consists of the following types of aircraft: Augusta Westland AW139, MI171, Sikorsky S92, Eurocopter Super Puma AS332, Eurocopter Dauphin EC155 and Cessna 172. Main objective of SWHS is the provision of services for and support of the oil industry of the Republic of Azerbaijan (flights to ships and offshore drilling rigs, air patrolling and monitoring of oil and gas pipelines). In addition to this

SWHS provides the following services:

- transportation of passengers, VIP flights;
- transportation of cargo;
- Medical Evacuation (Medivac);
- Emergency Medical Service (EMS);
- Search and Rescue operations (SAR)

Baku/Zabrat airport is also base for training of student-pilots of National Aviation Academy. Training program includes en-route flights, take-off, landing and go around maneuvers on Cessna-172.

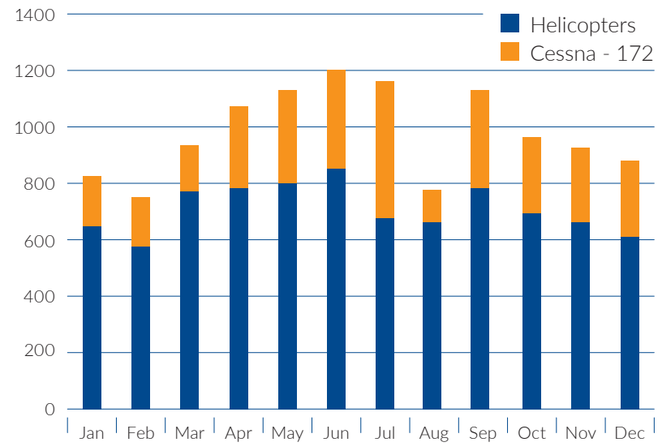
Total number of aerodrome movements in 2016 is 11794 aircraft. Average figure of number of aerodrome movements at Baku/Zabrat airport in 2016 is 33 aircraft per day.

11794

TOTAL NUMBER OF IFR MOVEMENTS

33

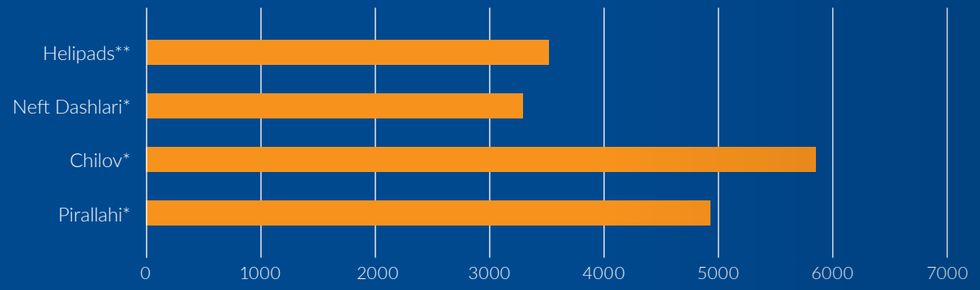
AVERAGE FIGURE OF NUMBER OF AERODROME MOVEMENTS



Picture 4.10 Baku/Zabrat airport traffic development by month of the year

ATC staff of Baku/Zabrat airport is also responsible for ATS provision for helicopter flights in the Caspian Sea. The Sea is divided on the sectors where Chilov TWR, Neft Dashlari TWR and Pirallahi TWR are providing ATS according to their area of responsibility.

Total number of helicopter flights in the Caspian Sea in 2016 is 10490 helicopters. Average figure of number of helicopter flights in the Caspian Sea in 2016 is 29 helicopters per day.



* Heliport
** Helipads on the ships and offshore drilling rigs

Picture 4.11 Helicopter flights to/from heliports and helipads in the Caspian Sea

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