



COMPETITIVENESS OF THE AIR TRANSPORT SECTOR IN GEORGIA

FINAL

Tuesday, November 29, 2011

This publication was produced for review by the United States Agency for International Development. It was prepared by Deloitte Consulting LLP.

COMPETITIVENESS OF THE AIR TRANSPORT SECTOR IN GEORGIA

FINAL

USAID ECONOMIC PROSPERITY INITIATIVE (EPI)

CONTRACT NUMBER: AID-114-C-10-00004

DELOITTE CONSULTING LLP

USAID/CAUCASUS

TUESDAY, NOVEMBER 29, 2011

DISCLAIMER:

The author's views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

DATA

Author(s): Andres Ricover

Reviewed By: Vakhtang Marsagishvili, Transport & Logistics Consultant

Giorgi Akhalaia, Manufacturing & Services Manager

Alan Saffery, Manufacturing & Services Component Leader

Name of Component: Manufacturing & Services

Practice Area: Transport & Logistics

Key Words: Georgia, airport, aviation, air, Tbilisi, service, policy, charges, Batumi, traffic, terminal, international, agreement, fees, airline, infrastructure, operation, flights

ABSTRACT

This study analyzes the factors that may hinder the development of Georgia's aviation sector and proposes a national air transport policy in order to increase the sector's competitiveness. The first section of the report analyzes the institutional framework, the separation of functions among the different bodies and their capability to undertake defined responsibilities. The second section focuses on the country's airport infrastructure and its capacity to accommodate sector growth. The third section is an assessment of the current market in terms of routes, destinations and frequencies. The fourth section analyzes the fees and charges levied from the airlines and passengers at the airports of Tbilisi and Batumi and benchmarks these costs with other relevant airports in the region to assess whether the country's air transport competitiveness is affected by these costs. Finally, a proposed formulation of a national aviation policy for Georgia is presented in order to increase Georgia's air transport competitiveness.

ABBREVIATIONS

ACC	Area Control Center
AIP	Aeronautical Information Publication
APP	Approach Control Service
ASA	Air Service Agreement
ATC	Air Traffic Control
BOT	Build-Operate-Transfer
BUS	Batumi International Airport
CAGR	Compound Annual Growth Rate
DME	Moscow Domodedovo Airport
EPI	Economic Prosperity Initiative
FIR	Flight Information Region
GCAA	Georgian Civil Aviation Agency
IASA	International Aviation Safety Assessments (Program)
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IOSA	IATA Operational Safety Audit
KUT	Kopitnari Airport (Kutaisi)
LOS	Level of Service
MTOW	Maximum Take-Off Weight
OAG	Official Airline Guide
PFC	Passenger Facility Charge
PRM	Persons with Reduced Mobility
SARP	Standards and Recommended Practices
SVO	Moscow Sheremetyevo Airport
TBS	Tbilisi International Airport
TMA	Terminal Control Area
UAG	United Airports of Georgia
UIR	Upper Flight Information Region
USD	United States Dollar

CONTENTS

I.	EXECUTIVE SUMMARY	1
II.	APPENDICES.....	6
A.	ANALYSIS OF THE INSTITUTIONAL FRAMEWORK.....	7
B.	AIRPORT INFRASTRUCTURE.....	15
C.	MARKET ASSESSMENT	26
D.	BENCHMARKING ANALYSIS OF INFRASTRUCTURE COSTS	42
E.	OUTLINE OF POLICY WHITE PAPER	57

I. EXECUTIVE SUMMARY

BACKGROUND AND INSTITUTIONAL FRAMEWORK

Through the Economic Prosperity Initiative (EPI), USAID is assisting the Government of Georgia (GoG) to assess the country's air transport sector's competitiveness. The objective of this study is to identify any issues that could hinder the development of the aviation sector, and to present recommendations to remedy the shortcomings.

The analysis includes four sections: an assessment of the institutional framework, an evaluation of the airport infrastructure, a market assessment, and a benchmarking of regulated tariffs.

The institutional framework of the civil aviation sector in Georgia presents a proper separation of functions between policy making, technical regulation, operation of the infrastructure and the investigation of incidents and accidents. While not all of the elements are fully staffed and equipped, they function independently.

The Ministry of Economy and Sustainable Development, through its Transport Policy Department is responsible for formulating and establishing aviation policy. Georgia has adopted a completely liberalized environment, at a level rarely seen in the world. Not only does the government allow access to foreign carriers with no restriction of capacity, but it is also willing to grant traffic rights to foreign carriers between points within Georgia (also known as Eighth Freedom, or "cabotage" rights).

However, the country lacks a formal national aviation policy in the form of a document that would formulate all government principles with respect to aviation policy (a proposed scope of such a policy has been included as an Appendix). The Transport Policy Department is in need of an increased staff, with defined positions, functions and responsibilities, and an institutional strengthening program involving goal setting, process and procedures.

Technical regulation is conducted by the Georgian Civil Aviation Agency (GCAA), a legal entity of public law, which is professionally run and in the process of full compliance with high standards of safety and security. The body currently employs a staff of approximate sixty persons, including management, inspectors and administrative support. The Agency enjoys freedom to remunerate its staff with competitive salaries, assuring a high standard of professionals.

In December 2010, Georgia signed a Common Aviation Area Agreement with the European Union, which involves the harmonization of European standards, aiming to enhance aviation safety, air traffic management and airport capacity, as well as flight crew licensing and airworthiness.

The air traffic control service is operated by Sakaeronavigatsia Ltd., a public corporation responsible for the provision of communications, air navigation management, and meteorological service over Georgia's air space. The company, which is financially autonomous through the collection of service charges, is equipped with updated technology and provides very high levels of service.

United Airports of Georgia Ltd (UAG), also a public corporation, is responsible for the operation of all the airports and airfields in the country, with the exception of the international

airports of Tbilisi and Batumi. Kutaisi airport, the country's third largest airport, is operated by UAG. Tbilisi and Batumi airports were given in a 12-year concession to a joint venture of two Turkish companies: TAV Tepe-Akfen Yatirim Yapim ve Isletme A.S. and URBAN Insaat Sanayi ve Ticaret A.S.

As for airlines, privately held Georgian Airways is the only local carrier in Georgia operating scheduled flights on a regular basis. The airline became an IATA member in 2010 after undergoing the IATA (International Air Transport Association) Operational Safety Audit (IOSA)¹ audit process.

As a result of recent reforms in the aviation sector, it has been reported that it is the intention of the authorities to establish an independent body for the investigation of incidents and accidents in aviation. The authorities have expressed clearly the objective to create an autonomous body that, in line with international norms, would report directly to the President of Georgia or Georgian Parliament. Such arrangement disassociates the investigation from policy, regulatory and enforcement agencies and therefore provides for an objective investigation of any event. However, being a sector still in the process of reform, the mechanisms and procedures for establishing such a body, either a permanent or an ad-hoc one, have not yet been set.

INFRASTRUCTURE

There are three international airports in Georgia that operate scheduled commercial services. Tbilisi (TBS), accounting for almost 90% of the international seat capacity, is the main gateway to the country and the center of the modest airport network. Since 2005, the airport's operation was transferred to the private sector through a Build-Operate-Transfer (BOT) arrangement² with TAV Georgia, a subsidiary of TAV Airports.

The airport's runway configuration is of one single runway in operation, next to an old and inoperative runway in a "V" shape. Being that the operating runway is in serious need for a major overhaul, the old runway should be refurbished so it can be used during the major works on the current runway. As of now, there are no concrete plans to solve the issue.

As part of the concession contract signed with TAV, a new passenger terminal was built to replace an outdated Soviet-era building. Although the new terminal meets modern construction standards and is in good condition, peak hour traffic levels exceed its design capacity, reducing significantly the levels of service offered to passengers.

The current patterns of westbound flights are posing particular stress on the airport facilities. Because demand for air travel to Europe is for flights leaving in the middle of the night, reaching the European capitals early morning, most operations are concentrated in a short period of time. At those times, the levels of service at the airport terminal are quite low.

At the same time, the current concession contract does not address expansion beyond the original commitment of constructing the new terminal. While the contract does not

¹ The program is an internationally recognized and accepted evaluation system designed to assess the operational management and control systems of an airline

² Build-operate-transfer (BOT) is a form of project financing, wherein a private entity receives a concession from the private or public sector to finance, design, construct, and operate a facility stated in the concession contract. This enables the project proponent to recover its investment, operating and maintenance expenses in the project.

necessarily force the operator to expand the terminal, nor to maintain a specific level of service, a contractual solution between the operator and the Government has to be found to the progressively serious stress posed to the airport facilities. In summary, Tbilisi airport is suffering from capacity constraints as well as from a runway system which is in need of major repairs. Neither issue is currently being addressed by TAV, its operator.

The International Airport of Batumi is also operated under the same concession contract by TAV, under the same master agreement signed for Tbilisi. Under this agreement, the investors committed to invest an amount of USD 15 million for specific works, although the types of works are not detailed in the original agreement. The airport currently operates about 5 to 6 flights a day, with little stress on the facilities. In general terms, no major issues were identified with respect to the Batumi airport.

Georgia's third airport, Kutaisi International Airport, is the only airport operated directly by UAG. Traffic levels at Kutaisi are very low, with only a handful of weekly flights to Moscow and Kiev. Despite the marginal number of scheduled operations, Kutaisi has a strategic value to Georgia's airport system. Located between Tbilisi and Batumi, at an approximate distance of 2.5 to 3 hours' drive to each city, it is the only airport located in the middle of the country.

The runway, taxiways, and passenger terminal at Kutaisi are in a deteriorated condition. The refurbishment of the airport, however, poses an interesting dilemma. While the airport has indeed some strategic value, any investment carried out will never be repaid due to low demand for air transport at this destination. The possibility that the administrative capital of the country may move to Kutaisi, as well as the parliament, will improve the financial viability of the airport; the parliamentarians and administrative officials may become an interesting market for commuter flights connecting to Tbilisi on turboprop operations and, eventually, regional jets. In such a case, the airport could play a more important role in connecting the center of the country with Tbilisi, and even with Batumi, operating a modest amount of traffic that could support the running cost of a well maintained operation.

MARKET ASSESSMENT

A market assessment was carried out to assess the level of connectivity and competitiveness by measuring available seat capacity on a route by route basis. The market assessment is focused on the airports of Tbilisi and Batumi, which together account for over 98% of the international seat capacity.

Tbilisi is Georgia's main international gateway. The airport presents a high level of connectivity with services to numerous destinations mainly in Eastern and Western Europe, but also in the Middle East and Asia. Seat capacity is highly fragmented, indicating that most destination regions, countries, and markets are operated with adequate supply levels.

Only nine of the 28 markets are served with less than three weekly frequencies. There are thirteen markets operated with 3 to 7 weekly flights, and another 6 markets operated with more than one daily service.

Competition on a market level is not abundant, with only 7 markets operated by two airlines, and the remaining 21 markets served by just one carrier. However, the lack of competition is more a result of the size of the market rather than the consequence of any government policy.

Batumi has services mainly to European markets, plus two destinations in the Middle East. The airport has an extended catchment area that covers the surrounding population of

Batumi, and also cities located on the far-east areas of Turkey, enjoying Turkish nationals the ease of border crossing with just a normal ID (no passport required).

Georgia’s air connectivity is well developed, in large part presumably thanks to its open aviation policy. Some of the markets are operated with a relatively low number of frequencies and/or with low levels of competition among airlines, but that appears to be related to low demand levels, rather than on artificial restrictions imposed by the regulators.

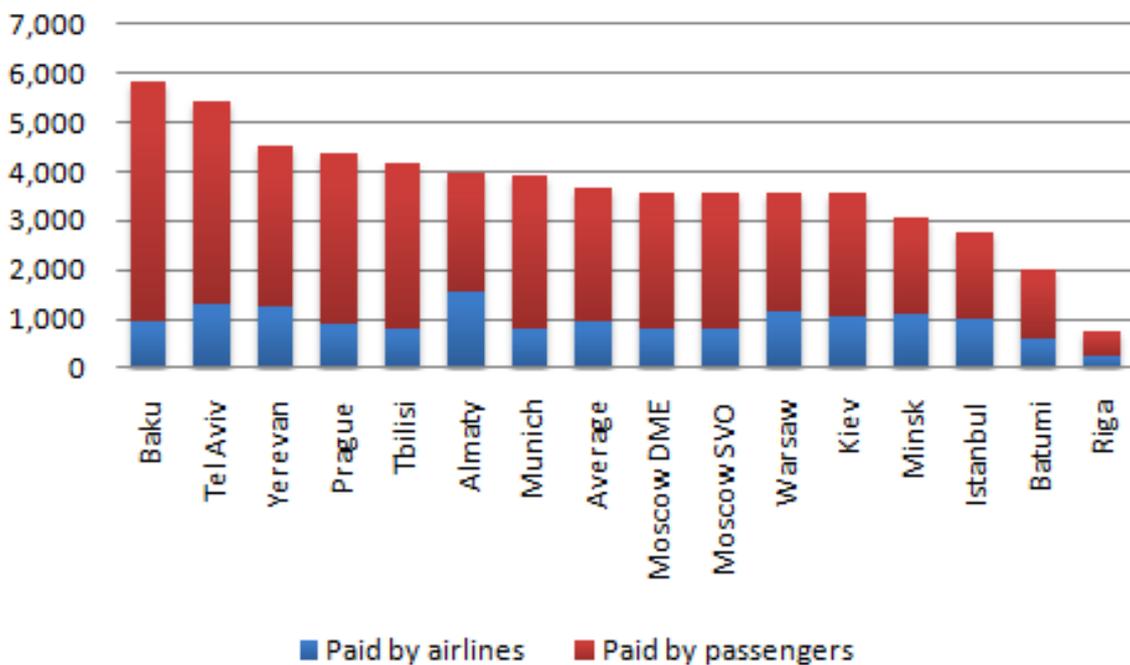
BENCHMARKING ON INFRASTRUCTRE COSTS

The benchmarking study on infrastructure costs compared airport charges at Tbilisi and Batumi against thirteen airports in Eastern and Western Europe, the Middle East, and Asia. The study assesses the costs incurred by airlines and passengers at Tbilisi and Batumi, based on the fees and charges levied for aeronautical services. The intention of the study is to identify if the current charges are posing any restriction in the development of air travel within the country and internationally.

The analysis comprised of regulated aeronautical charges, including landing fees and night surcharges, aircraft parking fees, boarding bridge fees, and passenger charges.

The following graph (Figure 1) summarizes all turnaround charges levied on an Airbus A320 operation, at Tbilisi International Airport.

Figure 1 –Turnaround Costs for an Airbus A320 at Selected Airports (USD)
(includes landing fees, parking - 2 hours, boarding bridges - 2 hours, and passenger charges levied by the airport*)



Source: prepared by the consultant with airport’s published charges, information from Georgian AIP for Tbilisi and IATA’s Airport Charges Manual
* includes charges other than the PFC, such as baggage handling fees, excludes federal taxes

Aeronautical charges paid by airlines at Tbilisi are among the lowest in the sample, but they are offset by higher-than-average passenger charges, leaving the airport between 11% and 13% more expensive than the sample average (depending on the aircraft type) when considering the total charges paid both by airlines and passengers.

Airport charges levied at Batumi, on the other hand, are among the lowest in the sample (both when considering charges levied on the aircraft and charges levied on the passengers), and is about 45% lower than the sample average.

Although somewhat higher than the sample average, the current level of charges at Tbilisi is within the range of the other airports, and shouldn't have any significant impact on Georgia's competitiveness vs. other countries.

PROPOSED CONTENTS OF A NATIONAL AVIATION POLICY

The importance of formulating national aviation policy as a White Paper is crucial to guarantee continuity of the policy over time. The objective of a national aviation policy would be to maximize the air transport sector's contribution to the national economy. The formulation of a national aviation policy should include consideration of roles and responsibilities of various public sector agencies, government approach to freedom rights, airport pricing and investment freedom, competition issues, safety and security policies, consumer protection and environmental issues.

The Ministry of Economy and Sustainable Development has requested assistance from EPI in developing a national air transport policy/strategy document.

The focus of this study has deliberately focused on passenger transportation rather than cargo. Georgia exports very little cargo by plane; 99% of the cargo handled in Georgia, according to Lasare Cargo Terminal is imported cargo. The small amount of export goods transported by plane comprise largely of biological products, medicines and diplomatic goods. Most of the cargo is shipped on the belly of passenger aircraft; there are 3 freighters per week (Two Turkish A300s, and one Cargolux Boeing 747-200). Cargolux actually comes en-route from Baku with over half the capacity taken by Azerbaijan. There are no regulatory issues or constraints concerning air cargo.

II. APPENDICES

- A. ANALYSIS OF THE INSTITUTIONAL FRAMEWORK**
- B. AIRPORT INFRASTRUCTURE**
- C. MARKET ASSESSMENT**
- D. BENCHMARKING ANALYSIS OF INFRASTRUCTURE COSTS**
- E. OUTLINE OF POLICY WHITE PAPER**

A. ANALYSIS OF THE INSTITUTIONAL FRAMEWORK

DISTRIBUTION OF FUNCTIONS

The institutional framework of the civil aviation sector in Georgia presents a proper separation of functions, as seen in the following diagram (Figure 2).

Figure 2 – Institutional Framework of the Air Transport Sector



Source: prepared by the consultant

(1) Ministry of Economy and Sustainable Development

(2) United Airports of Georgia

(3) No mechanism for ad-hoc creation yet

POLICY MAKING

The Ministry of Economy and Sustainable Development, through its Transport Policy Department is responsible for formulating and setting the aviation policy. Aviation policy comprises issues such as access by foreign carriers to the air transport market as well as access of local carriers into foreign markets (typically set through the celebration of air service agreements), economic issues with respect to costs of air transportation, access of service providers, safety and security, environmental issues, etc.

At present, the Transport Policy Department is virtually understaffed, suffering from a lack of human resources to undertake the work.

Georgia has adopted a completely liberalized environment, at a level rarely seen in the world. Not only is the government willing to grant access to foreign carriers with no restriction on capacity (measured in terms of frequencies and type of aircraft), number of airlines, points of entry or air fares³, but it is willing to access traffic rights to foreign carriers between

³ The four of these factors are the cornerstone of any Open Skies Agreement

points within Georgia (also known as Eighth Freedom⁴, or “cabotage” rights). In other words, Georgia welcomes foreign airlines that are interested to operate services between airports within the country, competing with the locally-based carriers.

However, the country lacks a formal national aviation policy in the form of a White Paper that formulates all government principles with respect to aviation policy⁵.

TECHNICAL REGULATION

Technical regulation is conducted by the Georgian Civil Aviation Agency (GCAA), which is empowered to oversee all technical aspects of the civil aviation sector according to the norms and recommendations of the Chicago Convention of 1944 and its Annexes⁶. As such, the responsibilities of the GCAA include all technical aspects related to oversight and enforcement of compliance with local and international norms, such as ICAO Standards and Recommended Practices (SARP). Among others, it involves certification of aircraft airworthiness, of maintenance facilities, licensing of all aviation personnel (flight and cabin crews⁷), certification of airports, of air navigation services, air cargo terminals and of all service providers related to air transportation. In summary, the scope involves the oversight of all matters with respect to safety and security (safeguarding against acts of unlawful interference).

The GCAA was formed as a “legal entity of public law”. According to the law, “*the state control over a legal entity of public law may be provided only by the Ministry, except for the independent regulatory bodies or such legal entities of public law, which have no state controlling body by law*”⁸. In addition, from October 1, 2011, the GCAA is anticipated to be a fully autonomous body, with financial independence through the collection of certification and licensing fees, including also the air navigation service provider and the airports (a service fee is levied from the airlines, calculated on the basis of MTOW, at USD 0.04 cents/ton).

The body currently employs a staff of approximate sixty persons, including management, inspectors and administrative support. The Agency enjoys freedom to remunerate its staff with competitive salaries, assuring a high standard level of professionals.

Since its inception, the Agency went through significant challenges in order to improve the level of flight safety. It revoked a significant number of airworthiness certificates of aircraft (up to 40 aircraft will be deregistered by November 1st) grounding outdated and aged airplanes. At present, there are about forty to fifty aircraft with valid certificates to fly.

In December 2010, Georgia signed a comprehensive Common Aviation Area Agreement with the EU and took on the obligation to harmonize its regulatory framework with European

⁴ The freedom to carry traffic between two domestic points in a foreign country on a flight that either originated in or is destined for the carrier's home country. Also referred to as "cabotage" privileges. It involves the right to move passengers on a route from a home country to a destination country (A) that uses more than one stop along which passengers may be loaded and unloaded

⁵ A proposed program for the formulation of a National Aviation Policy (White Paper) is presented as Annex I.

⁶ The 18 Annexes to the Chicago Convention of the International Civil Aviation Organization (ICAO), of which Georgia is a signatory state

⁷ Annexes 1 (Personnel Licensing), 6 (Operation of Aircraft), and 8 (Airworthiness of Aircraft) of the Chicago Convention.

⁸ Law of Georgia on the Structure, Powers and Order of Activity of the Government of Georgia. Chapter VI, Article 18

standards. According to the Agreement the process of harmonization will take one and half year after entry into force of the Agreement and its aiming to enhance aviation safety, air traffic management and airport capacity, as well as flight crew licensing and airworthiness.

In summary, the Georgian Civil Aviation Agency is very professionally run and is in the process of full compliance with the highest standards of safety and security.

The U.S. Federal Aviation Administration (FAA) has not assessed yet, through its IASA Program⁹, the Government of Georgia's Civil Aviation Authority for compliance with International Civil Aviation Organization (ICAO) aviation safety standards (implying only lack of assessment – neither compliance nor non-compliance to the SARPS).

OPERATION OF INFRASTRUCTURE

Within the operation of the infrastructure, the provision of air navigation services (air traffic control), airports and airlines are considered.

Air Traffic Control Services

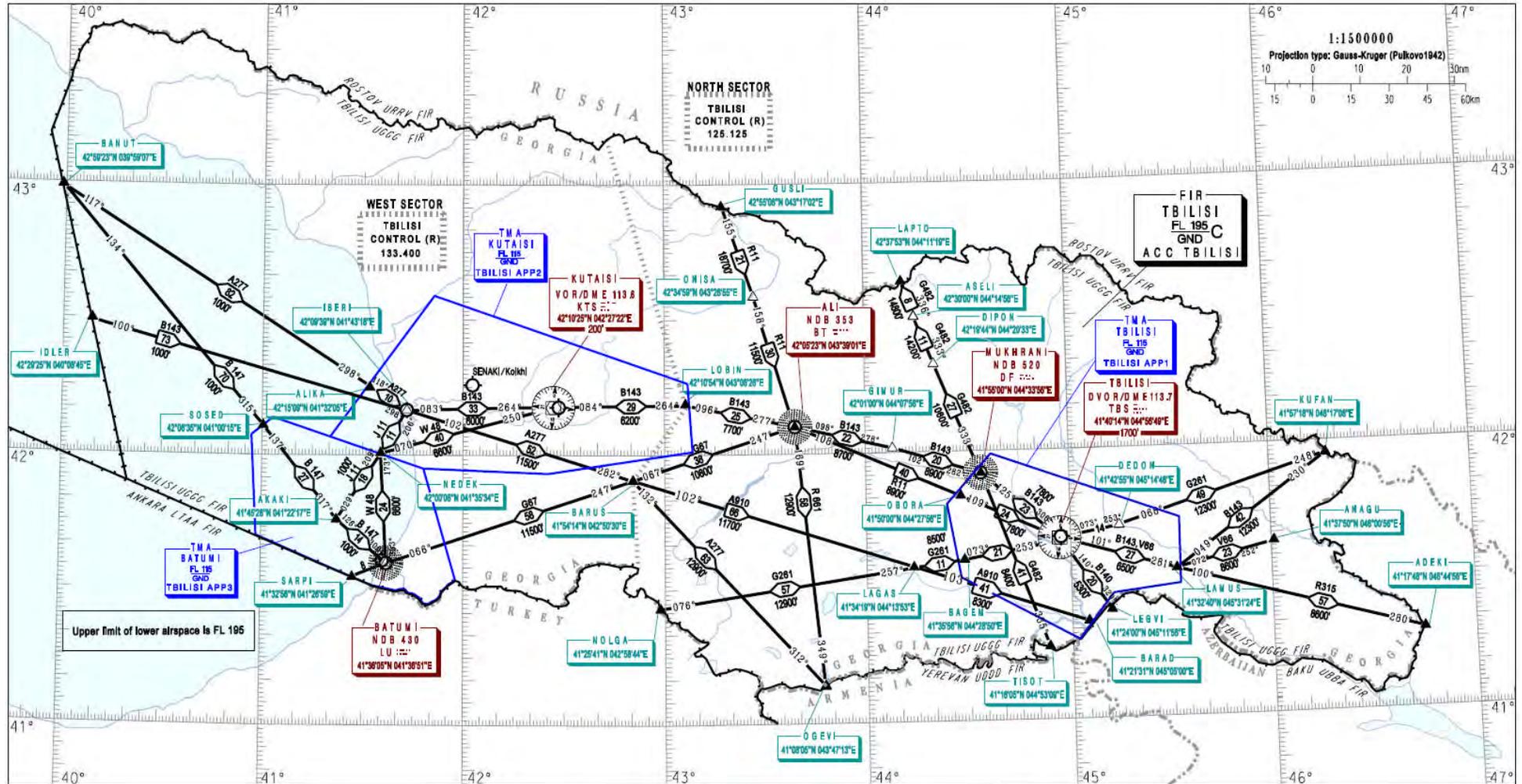
The air traffic control service is operated by Sakaeronavigatsia Ltd., a limited liability company responsible for the provision of communications, air navigation management, and meteorological service over Georgia's air space.

Georgia's air space (Figure 3) is separated into lower and upper airspace. Sakaeronavigatsia collects enroute charges for flights overflying Georgia's territory in the upper air space (Tbilisi Upper Flight Information Region – UIR), for air traffic management provided by the Tbilisi Area Control Centre (ACC). In addition, flights entering or departing Georgian airports and flying through the lower airspace (Tbilisi Flight Information Region – FIR) are also charged for the service provided by the country's approach control service units (APP) at the different TMAs (Terminal Control Areas): Tbilisi TMA, Kutaisi TMA and Batumi TMA.

Through the collection of these charges, this 100% state-owned limited liability company is completely autonomous financially. In fact, a fraction of the revenues collected by Sakaeronavigatsia are redirected to support GCAA.

⁹ International Aviation Assessments (IASA) Program: The United States Federal Aviation Administration (FAA) established the IASA program through public policy in August of 1992. FAA's foreign assessment program focuses on a country's ability, not the individual air carrier, to adhere to international standards and recommended practices for aircraft operations and maintenance established by the International Civil Aviation Organization (ICAO).

Figure 3 – Georgian Flight Information Region (FIR) boundaries and flight routes



Source: Enroute Charge – ICAO (Lower air pace) – AIP Georgia, 28/7/2011

Equipped with updated technology, Sakaeronavigatsia provides very high standards of service of air traffic navigation.

Airports

United Airports of Georgia Ltd (UAG), also a public corporation, is responsible for the operation of all the airports and airfields in the country, with the exception of the international airports of Tbilisi and Batumi. Kutaisi airport, the country's third largest airport, is operated by UAG.

The airports of Tbilisi and Batumi were given in concession in the form of a Build Operate and Transfer (BOT) agreement, signed on September 6, 2005, between the Joint Stock Company Tbilisi International Airports (referred to in the contract as "Authority") and a joint venture of two Turkish companies: TAV Tepe-Akfen Yatirim Yapim ve Isletme A.S. and URBAN Insaat Sanayi ve Ticaret A.S.

The Concession Contract for Tbilisi and Batumi

Under the terms of the agreement, the operating consortium shall be responsible for the management, commercial operation and maintenance of each and all of the facilities of the Existing Terminal and the New Terminal, and for the construction of such New Terminal. The period of the agreement was set as 90 days for the Application Phase, plus twelve months for the Construction Phase, and ten years and six months for the Operation Phase. In total, the concession period is expected to be 11 and $\frac{3}{4}$ years; the concession is scheduled to expire by mid-2017.

The consortium was committed to invest USD 62 million on a new terminal building of approximately 19,300 square meters, a car parking lot for 200 vehicles and a connecting road to the new facility. In addition, several infrastructure facilities including external utilities, auxiliary facilities and typical terminal equipment was also included.

The agreement stipulates a concession payment in the form of a "security fee"¹⁰ as follows:

- (a) 10% of the Landing Fee
- (b) 10% of the Ground Handling Fee and Ground Handling Royalty Fee

The operator has the freedom to set their own fees and charges, with the sole exception of the passenger boarding fees, which are set by contract¹¹. Landing fees and the fees for various components of ground handling services (defined as "Reserved Fees") are not capped, and only limited by minimum levels.

With respect to service levels, the agreement does not specify details other than "*The Investor shall construct the New Terminal in accordance with the requirements of IATA, ICAO and ECAC and in compliance with the Approved Design, and in compliance with the Applicable Laws of Georgia*"¹². By not defining any specific service level defined by IATA, the

¹⁰ Although it is called "security fee", it has no relation of any type with the term "security", as understood in aviation.

¹¹ Passenger fees are to be adjusted up to a 2% annually.

¹² Build Operate and Transfer Agreement for Tbilisi International Airport Terminal Building and Related Infrastructure: Article 7 – Operational Standards and Procedures

operator does not have to comply with any specific standard of operation in terms of Level of Service (LOS).

A full description of the airports in terms of the state of the infrastructure is described below.

Airlines

Privately-held Georgian Airways is the only local carrier in Georgia operating scheduled flights on a regular basis. The company started operations in 1993 and was originally named Airzena, but was later renamed to Georgian Airways in 2004. The fleet is composed of western-built regional and narrow-body jets that operate to short and medium haul destinations. The airline became IATA member in 2010, previously undergoing the IATA Operational Safety Audit (IOSA)¹³ audit process.

Georgian Airways fleet is as follows:

Figure 4 – Georgian Airways Fleet

aircraft type	number in service
Boeing 737-500	2
Boeing 737-400	1
Boeing 737-300	1
CRJ-200	2
CRJ-100	1
total aircraft	7

Source: Georgian Airways – August 2011

The airline has a route network comprising 9 regular destinations plus another 5 non-regular ones, as follows:

¹³ The program is an internationally recognized and accepted evaluation system designed to assess the operational management and control systems of an airline

Figure 5 – Georgian Airways Route Network

destination	weekly frequencies
Moscow	7
Amsterdam	3
Tel Aviv	3
Teheran	3
Paris	2
Vienna	2
Dubai	2
Frankfurt	1
Athens	1
Kiev	n/a
Kharkov	n/a
Donetsk	n/a
Odessa	n/a
Minsk	n/a

Source: Georgian Airways – October 2011

n/a: not available in the company schedule

A second local carrier that has been operating non-scheduled flights in the past is Sky Georgia. The company operates under different defense contracts transporting cargo and passengers, on a charter arrangement. In August 2011, the company reported to be operating 5 leased Ilyushin IL-76 (Russian built) and 2 MD-82¹⁴.

ACCIDENTS INVESTIGATION

As a result of the recent reforms in the aviation sector in Georgia, it has been reported that it is the intention of the authorities to establish an independent body for the investigation of incidents and accidents in aviation. The authorities have clearly expressed the objective to create a totally autonomous body that should report directly to the President of Georgia or to the Georgian Parliament. Such arrangement is precisely according to the best recommended practices, since it is the only way to guarantee the non-interference and objective investigation of any event.

For smaller countries, a solution is to form an ad-hoc commission as the need arises. For such, the mechanisms and procedures have to be pre-defined to assure the prompt configuration of the team and the allocation of resources in a critical and urgent moment as

¹⁴ Built by Mc Donnell Douglas

is an accidental event. However, being a sector still in the process of reform, the mechanisms and procedures for establishing such a body are not set defined.

CONCLUSIONS ON THE INSTITUTIONAL FRAMEWORK

The current arrangement found in Georgia in terms of the institutional framework is precisely as recommended based on international best practices. It provides the sufficient separation of functions between the policy maker, the regulator and the different service operators of the infrastructure, while providing the grounds for a totally independent investigator of incidents and accidents.

The arrangement is the result of institutional reform, conducted by the Ministry of Economy and Sustainable Development, which is still in the process of implementation. Part of the pending completion of the new arrangement is the proper staffing of the Transport Policy Department. This should include the formulation of functions and responsibilities, and it should be designed along an institutional strengthening program that should include working processes and procedures consistent with a goal setting definition and capacity building program for its staff.

In addition, the Transport Policy Department should have a written policy with respect to aviation. For such, the formulation of a White Paper on the National Aviation Policy should be drafted (as a Green Paper) for later approval by the relevant bodies¹⁵.

¹⁵ The scope of such a White Paper is presented as an Annex

B. AIRPORT INFRASTRUCTURE

GENERAL STATE OF THE AIR TRANSPORT NETWORK

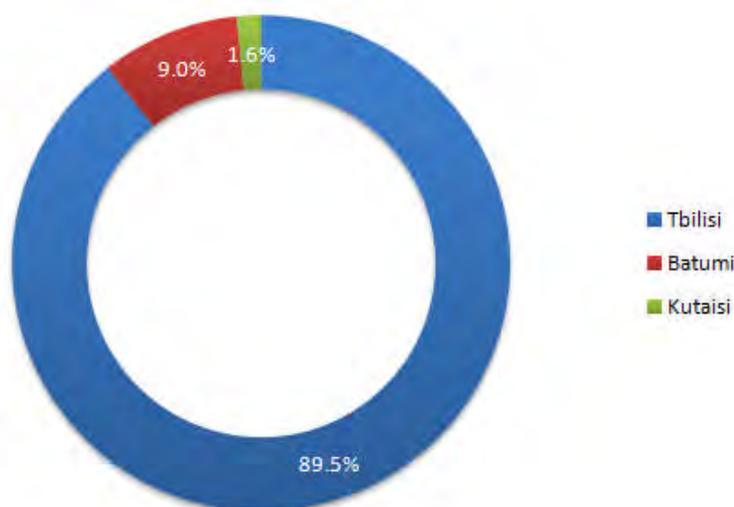
There are 3 airports in Georgia that receive scheduled commercial services (Figure 6). Tbilisi International Airport (TBS) and Batumi International Airport (BUS) receive international and domestic services, and Kutaisi’s Kopitnari Airport (KUT) only operates international flights.

Figure 6 – Map of Georgia



Tbilisi is the most important airport in the network, with almost 90% of the international seat capacity (Figure 7). Domestic capacity is excluded from the analysis as there is only one domestic route within Georgia that accounts for less than 1.5% of the total available seats (domestic and international).

Figure 7 – International Seat Capacity from TBS, by arrival region



Source: prepared by the consultant with information from OAG (September 2011 to August 2012) and airlines schedules

TBILISI

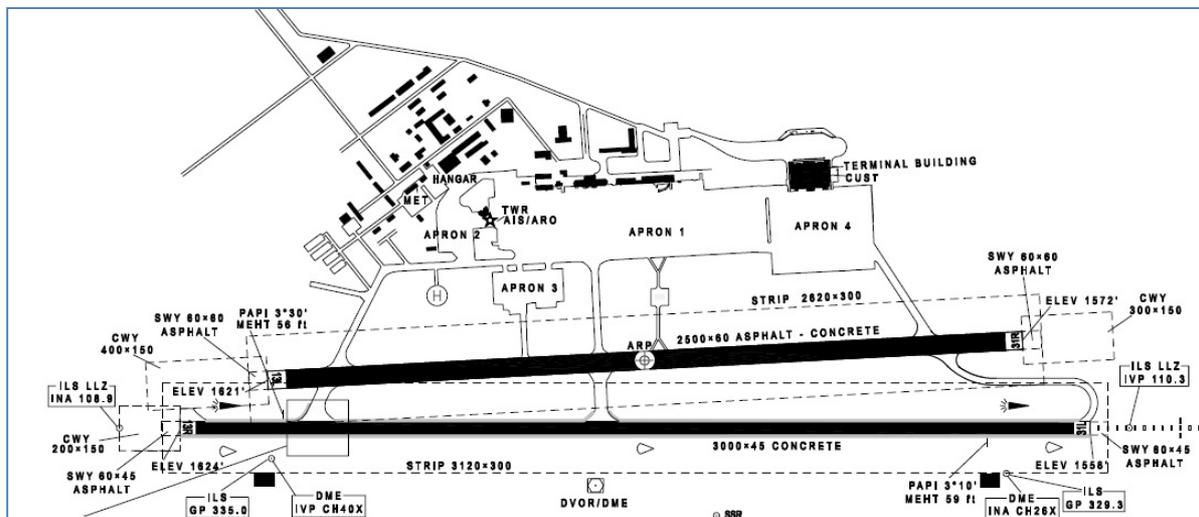
Tbilisi is the largest airport and main gateway of Georgia. The airport is located 15 km. southeast of Tbilisi. TBS has been operated since 2005 by TAV Georgia, a subsidiary of TAV Airports, under a Build-Operate-Transfer (BOT) arrangement.

Figure 7 – Aerial Image of Tbilisi Airport



Source: Google

The airport has two runways in an open “V” configuration with full taxiways, and an airfield lighting system. Instrument Landing System (ILS), used to allow operations in low-visibility conditions, is installed on runway 13R/31L. A diagram of TBS is presented below (Figure 9).

Figure 9 – Schematic Diagram of Tbilisi Airport

Source: Georgia AIP

The airport originally had only one runway (13L/31R); a second runway (13R/31L) was built later. The proximity of both runways does not allow for independent operations. However, they could eventually be used at the same time, one for landing and one for takeoff, although on coordinated operations. In any case, within the foreseeable future, Tbilisi has no need for a second runway.

The original runway is being used as a taxiway to the main 13R/31L runway. It has been reported that the main runway is currently in a bad condition and major repairs are needed. In order to repair the main runway without the closure of the airport or causing operational disruption, it has been proposed to refurbish the old runway and make it operational during the work. However, as of now, there are no concrete plans for undertaking the work.

The concession contract of Tbilisi International Airport, under which TAV Airports operates, provides that the operator is the one responsible, as follows¹⁶:

- The Investor shall be responsible for the regular, periodic and emergency maintenance and repair works of all the fixed assets, as well as the annexations and accessories related thereto located on the territory of the Airport, controlled by the Investor, as applicable, in any case excluding security equipment, air traffic control tower and its technical building, aeronautical equipment, lightning of the (i) apron, (ii) runways (including approach lights) and (iii) taxiways in order to keep them in good operating condition. Expenses incurred for any and all maintenance, repair and replacement works shall be paid by the Investor.*

Based on the concession contract signed with TAV, a new passenger terminal was built to replace a soviet-era building with constrained facilities. Although the new terminal meets

¹⁶ Build Operate and Transfer Agreement for Tbilisi International Airport Terminal Building and Related Infrastructure: Article 7 – Operational Standards and Procedures

modern construction standards and is in good condition, peak hour traffic levels exceed its design capacity, reducing significantly the levels of service offered to passengers.

Figure 10 – Busy Times at Tbilisi Check-in Counters



Source: Photo by consultant – Tbilisi check-in area, 2am

Airlines, as well as passengers and other airport users have reported operational disruptions during the busy hours of the early morning, when up to five or six flights are dispatched within a short period of time.

Because of market considerations, most flights bound for Europe leave in the middle of the night. The same is relevant for most points located in Central Asia or the Middle East, at flight distances between three and six hours from the major European airports. Designed to meet the needs of the higher yield business travelers, these flights allow for an early arrival in Europe for work, and a return flight towards the end of the working day. Attempts to operate daylight flights, for example by Lufthansa, did not prove successful.

As a consequence, west bound flights pose a specific demand for airport facilities within a concentrated period of time. The coordination of slots could not solve the issue since in fact, airlines are responding to market needs, which have to be addressed if the destination of Tbilisi is to be promoted. While tourist demands are not necessarily the same, their yield per passenger is significantly lower than from the outbound business travelers. Ultimately, the need for expanding the infrastructure has to be properly addressed.

The airport terminal building has been designed on a modular basis, allowing for a lateral expansion, particularly to the north. In addition, the old terminal could also be refurbished to accommodate some of the traffic, during peak times. However, the current concession contract does not address the expansion beyond the original commitment of constructing the new terminal.

The proposal of a mutually agreed solution would have to be worked out between the two parties. While the contract does not necessarily force the operator to expand the terminal,

nor maintain a specific level of service, a contractual solution has to be found to the progressively serious stress posed to the airport facilities.

BATUMI

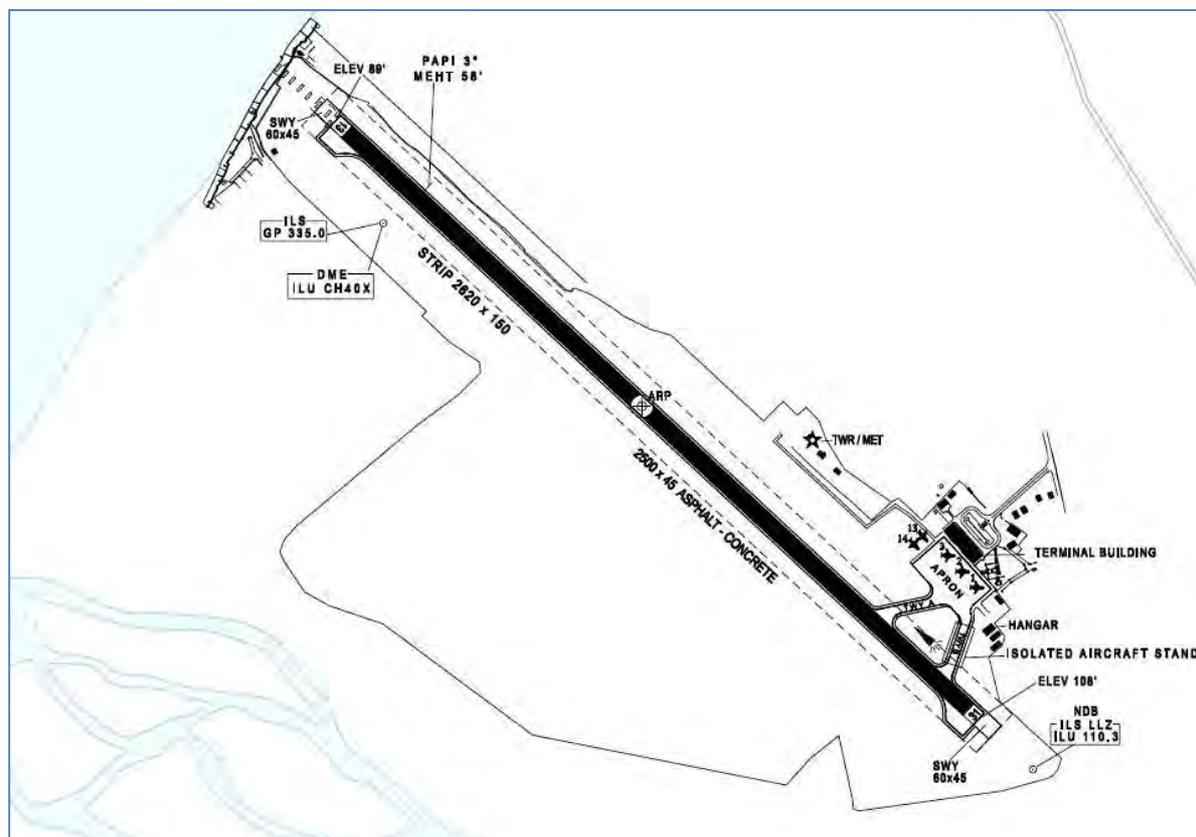
Batumi International Airport is located close to the southwest tip of Georgia; about ten kilometers from Turkey's border (Figure 11).

Figure 11 – Aerial Image of Batumi Airport



Source: Google

Batumi has a single asphalt runway with designation 13/31, which is 2500 meters long by 45 meters wide and allows the operation of aircraft up to ICAO Design Code D, such as the 767-300. The runway is connected to the apron by two short taxiways close to the 31 threshold (Figure 12). Because of topological restrictions, arrivals and departures are in opposite directions, meaning that departures are often operated with a tail wind.

Figure 12 – Schematic Diagram of Batumi Airport

Source: Georgia AIP

Runway 13 has a Precision Approach Path Indicator (PAPI) as an aid for visual approaches, and also has an ILS to allow landings in low visibility conditions. Runway 31 does not have visual or navigational aids for approach, and thus can only be used for Visual Flight Rules (VFR) flights, which require good weather and visibility.

The airport is also operated by TAV, under the same master agreement signed for Tbilisi. Under this agreement, the investors committed to invest an amount of USD 15 million for specific works not detailed in the original agreement.

The airport currently operates about 5 to 6 flights a day, with no major stress on the facilities, for the time being. However, it is expected that the current facilities will not be able to cope with future traffic without a decrease in the level of service.

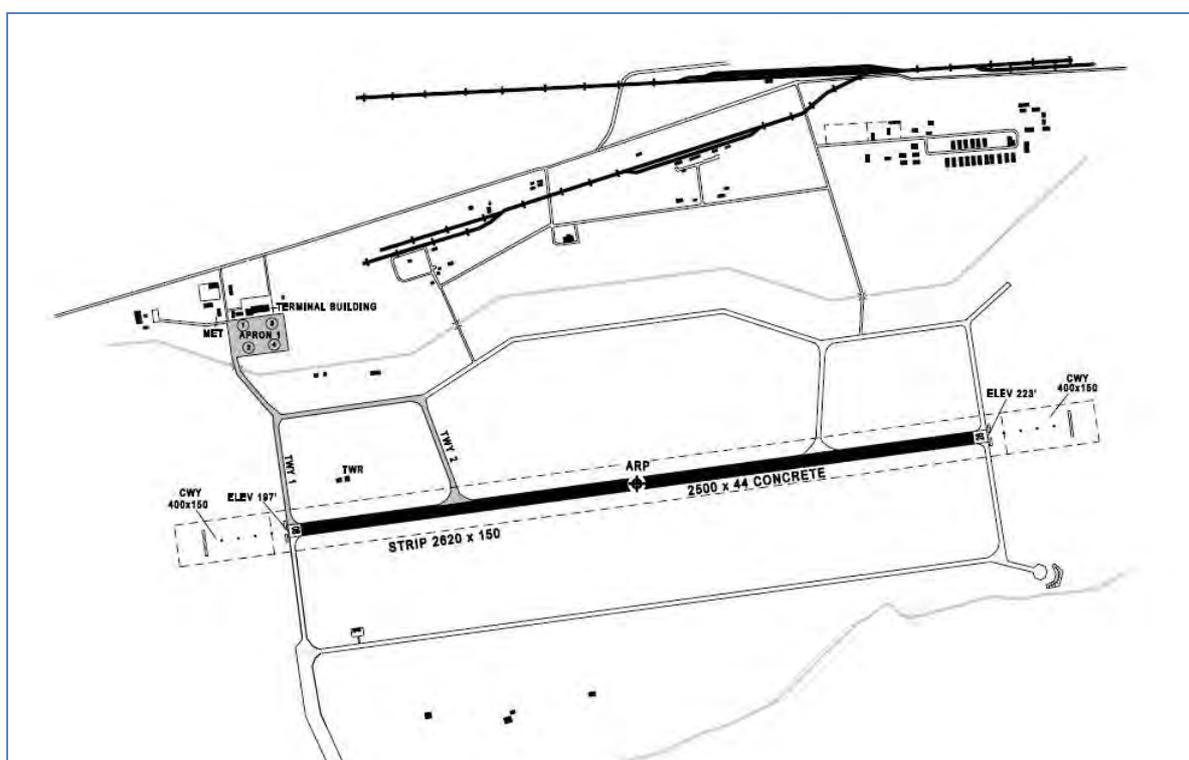
KUTAISI

Kutaisi's Kopitnari airport is located 18 kilometers southwest of the city. The airport has one 2500 meters long by 44 meters wide concrete runway (08/26) connected to the apron by a very long 4 taxiway system.

Figure 13 – Aerial Image of Kutaisi Airport

Source: Google

As can be seen in Figure 14, the runway remains a considerable distance from the apron, connected by a large set of taxiways.

Figure 14 – Schematic Diagram of Kutaisi Airport

Source: Georgia AIP

Runway 08 has a PAPI and ILS, allowing operations in low-visibility conditions.

Kutaisi is the only airport operated directly by UAG. Traffic levels at Kutaisi are low, with only a handful of weekly flights to Moscow and Kiev. During the summer period in August, the operation of only one weekly flight by S7 to Moscow was reported.

Despite the marginal number of scheduled operations, Kutaisi has a strategic value to Georgia's airport system. Located between Tbilisi and Batumi, at an approximate distance of 2.5 to 3 hours' drive to each city, it is the only airport located in the middle of the country. While the area is a relatively populated, the socioeconomic patterns of the population do not constitute a relevant catchment area for the airport.

While airlines prefer to define Yerevan as an alternate airport to Tbilisi, because of its accommodation and ground handling facilities, Kutaisi could eventually be considered an emergency alternate.

The airport facilities have deteriorated over a considerable period of time, as shown in the photograph below (Figure 15).

The terminal facilities are sufficient for any foreseeable possible level of traffic, although they would need a major rehabilitation program.

The refurbishment of Kutaisi airport poses an interesting dilemma. While the airport has indeed some strategic value in the sense that it is the third main airport in the country, located midway between the sea and Tbilisi, any investment carried out at the airport will never be repaid. Moreover, any expected traffic could hardly pay for the running costs of the airport.

The possibility that the administrative capital of the country may move to Kutaisi will change the scenario significantly. If the parliament is to move to Kutaisi, parliamentarians and administration officials may become an interesting market for commuter flights connecting to Tbilisi on turboprop operations and, eventually, regional jets. In such a case, the airport could play a more important role in connecting the center of the country with Tbilisi, and even with Batumi, and could operate a modest amount of traffic that could support the running costs of a well-maintained operation.

It is advisable that an investment program be put together for rehabilitation of Kutaisi, as well as an analysis of the required operating expenditures to maintain the infrastructure.

CONCLUSIONS ON THE AIRPORT INFRASTRUCTURE

Tbilisi, Georgia's principal gateway, requires infrastructure improvements on both the airside and the landside. The main runway is reportedly in a bad condition and needs major repairs, whereas the newly-built terminal design capacity is insufficient to cope with the busy hours, resulting in low levels of service in the early morning, when most west bound flights depart during a short window of time. According to the concession contract signed with TAV, the responsibility of the runway repairs clearly lies with the operator. As for the terminal, the contract does not provide for any capacity expansions beyond the original commitment of building the new passenger terminal.

There seems to be a need to review the agreement with TAV to accommodate both the outstanding obligations of the operator, and address the issue of expansion.

With respect to Batumi, the infrastructure is generally in good condition and it is reportedly sufficient to cope with the actual traffic. However, if the traffic growth trend continues, an expansion of the passenger terminal will have to be addressed, probably, within the existing concession contract.

The airport infrastructure at Kutaisi has seriously deteriorated, with abundant weeds on the runway and taxiways, and a lack of maintenance work on the terminal building. Current traffic volumes are very low, but the airport has a strategic value in Georgia's airport system, as it is the only airfield in the middle of the country, at 2.5 to 3 hours' drive from Tbilisi and Batumi, and could eventually be used as an alternate airport. In addition, if the administrative capital is ever moved to Kutaisi, the city will require better facilities to cope with the commuting traffic. The recommendation for Kutaisi is to conduct a more detailed analysis of the potential benefits and the costs (capital and maintenance) involved in rehabilitating the airport.

In general terms, it is recommended a comprehensive traffic forecast for the three airports, including the projection of busy-hour passengers to determine the required facilities¹⁷. The analysis will be used to determine the required facilities at each one of the different airports, for the foreseeable future. Such analysis can be used as a starting point for discussions with the airport operator, in order to solve the current and future constraints on the terminal building and on the aircraft parking apron.

¹⁷ Airport capacity is measured on the capability to handle passengers at a single point in time, typically known as “busy hour”. As opposed to the “peak hour”, it is not the busiest hour of the airport but a predefined moment for which the facilities are designed (also called “design hour”). The methodologies for the calculation of the *busy hour* or the *design hour* vary depending on the countries and continents. Some of them could be: the 30th (or the 40th) busiest hour of the year, or the peak hour of the busiest day of the average week of the peak month, etc.

C. MARKET ASSESSMENT

A market assessment was undertaken to assess the level of connectivity and competitiveness by measuring available seat capacity on a route by route basis. At present, Tbilisi, Batumi and Kutaisi airports receive international services. The market assessment focuses on Tbilisi and Batumi, which together account for almost 99% of the international seat capacity.

METHODOLOGY

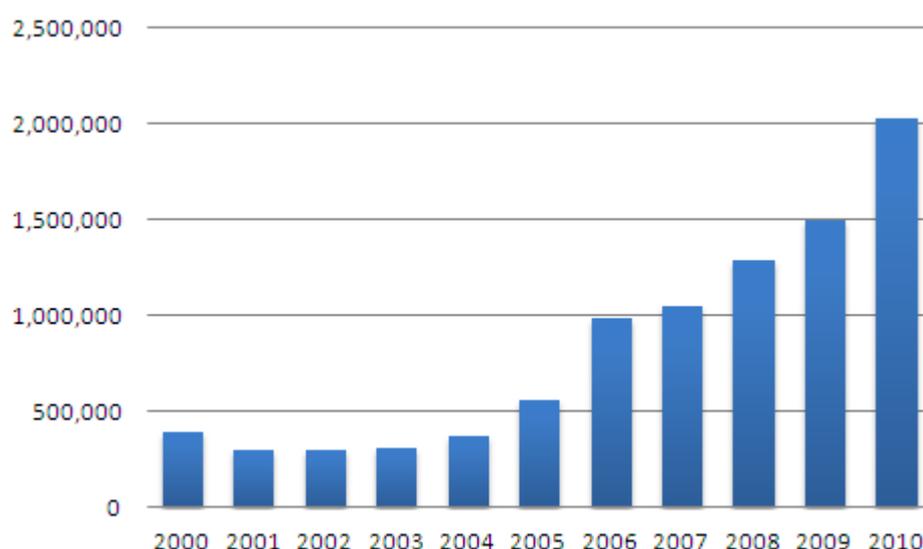
Available capacity was obtained from the Official Airline Guide (OAG), which contains the timetables of most of the scheduled airlines worldwide. The information obtained from OAG was cross-checked with the schedules published by the airlines, which were obtained directly from each airline's website. In case of inconsistencies, the information published by the carriers was ultimately used.

Airline schedules can vary according to the period of the year depending on the nature of traffic that is carried on specific routes. For example, frequencies to holiday destinations which are seasonal by nature can be reduced in off-peak seasons because of the lower traffic volumes. In most cases, the schedules available for download were only valid for the summer season (April to October), but since the analysis required the available capacity for one whole year, it was assumed that the current schedules are valid for one year forward.

FINDINGS

The number of international visitors to Georgia has grown at a considerable rate in the last few years (Figure 17)

Figure 17 – International Visitors to Georgia

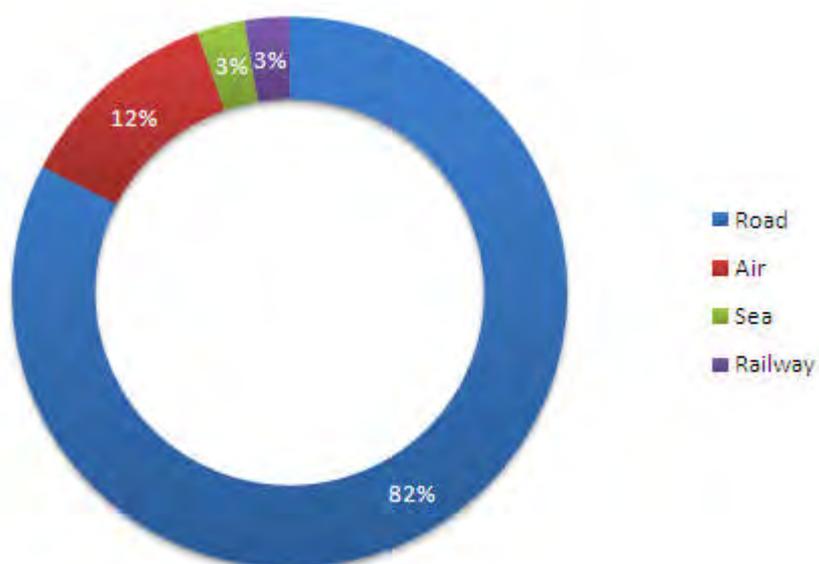


Source: MIA / Border Police of Georgia

The number of international visitors remains practically constant between 2000 and 2004, with between 300,000 and 387,000 annual visitors. The number of visitors then increased 50% in 2005 and 75% in 2006, to reach 983,000 at the end of the year. The growth trend was sustained in the following years, ending 2010 with over 2 million visitors. The compound annual growth rate (CAGR) for the period is 18%.

Road is the predominant mode of transportation into the country, as seen in the following chart (Figure 18)

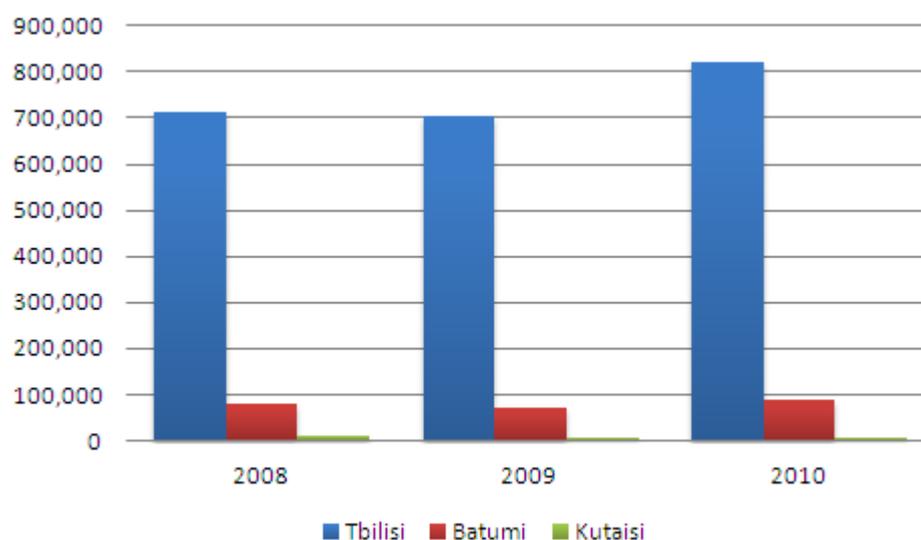
Figure 18 – International Visitors by Means of Transport (2010)



Source: MIA / Border Police of Georgia

Over 80% of international visitors reach the country by road, and 12% by air. Sea and rail account each for 3% of the arrivals.

Tbilisi is the main airport with over 89% of the passengers of Georgia's three airports (Figure 19).

Figure 19 – Passenger Traffic by Airport

Source: United Transport Administration

Passenger traffic at Tbilisi declined slightly from 714,859 passengers in 2008 to 702,563 in 2009. Traffic recovered in 2010 with a 17.1% increase to 822,728 passengers. Batumi shows a similar pattern, with 79,733 passengers in 2008, 69,492 in 2009, and 88,562 in 2010. Traffic at Kutaisi is marginal, with around eight thousand annual passengers.

TBILISI

TBS serves Georgia's capital city and accounts for about 89.5% of the international seat capacity from the country¹⁸.

TBS is connected to 28 markets in Eastern and Western Europe, the Middle East and Asia (Figure 20). The term *market* is preferred over *city*, *route*, or *destination*, since it comprises all the airports that serve a given area or location. For example, all the airports serving Istanbul (Atatürk International and Sabiha Gökçen International) are considered as the Istanbul market. For the purpose of this market assessment it is more important to appreciate the capacity allocated to Istanbul versus another market, rather than identifying which flights go to Atatürk or Sabiha Gökçen.

¹⁸ The figure is totally consistent with statistics published by United Transport Administration, that in 2010 reports 822 thousand passengers arriving by air through Tbilisi, representing exactly 89.55% of total arrival by air.

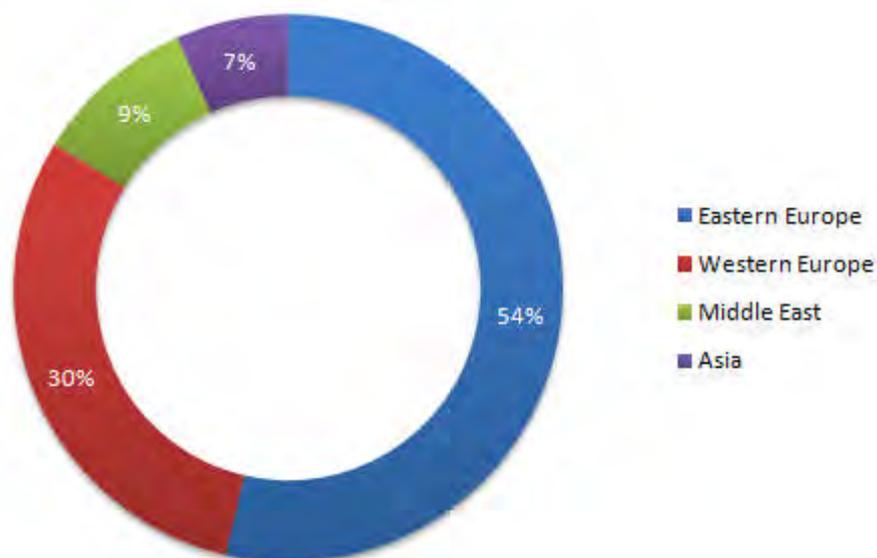
Figure 20 – International Markets Served from Tbilisi

#	Region	Country	Market	
1	Eastern Europe	Armenia	Yerevan	Armavia
2		Azerbaijan	Baku	Azerbaijan Airlines
3		Belarus	Minsk	Belavia, Georgian Airways
4		Czech Republic	Prague and beyond	CSA Czech Airlines
5		Latvia	Riga	Air Baltic
6		Poland	Warsaw and beyond	LOT
7		Russian Federation	Moscow and beyond	Georgian Airways, S7
8		Ukraine	Dnepropetrovsk	Aerosvit Airlines
9		Ukraine	Donetsk	Aerosvit Airlines
10		Ukraine	Kharkiv	Georgian Airways
11		Ukraine	Kiev	Aerosvit Airlines, Ukraine Int'l Airways
12		Ukraine	Odessa	Aerosvit Airlines
13	Western Europe	Austria	Vienna	Georgian Airways
14		England	London and beyond	BMI
15		France	Paris	Georgian Airways
16		Germany	Frankfurt	Georgian Airways
17		Germany	Munich and beyond	Lufthansa
18		Greece	Athens	Georgian Airways
19		Netherlands	Amsterdam	Georgian Airways
20		Turkey	Antalya	Georgian Airways, Pegasus Airlines
21		Turkey	Istanbul and beyond	Turkish, Pegasus Airlines
22	Middle East	Iran	Tehran	ATA Airlines, Georgian Airways
23		Israel	Tel Aviv	Arkia, Georgian Airways
24		United Arab Emirates	Dubai	Georgian Airways
25	Asia	China	Urumqi	China Southern
26		Kazakhstan	Aktau	Air Company Scat
27		Kazakhstan	Almaty	Air Astana
28		Kazakhstan	Astana and beyond	Air Company Scat

Source: prepared by the consultant with information from OAG (September 2011 to August 2012) and airlines schedules

Twenty one out of a total of 28 markets out of TBS are located in Eastern and Western Europe, and accordingly, these regions also account for a significant share of the seat capacity (Figure 21).

Figure 21 – International Seat Capacity from TBS (by arrival region)



Source: prepared by the consultant with information from OAG (September 2011 to August 2012) and airlines schedules

Eastern and Western Europe concentrate 84% of the seat capacity from TBS (54% the former and 30% the latter), followed by the Middle East with 9% and Asia with the remaining 7%.

The 28 international non-stop markets served from TBS are located in 20 countries. Seat capacity in terms of arrival country is fairly atomized among those countries (Figure 21).

Figure 22 – International Seat Capacity from TBS (by arrival country)

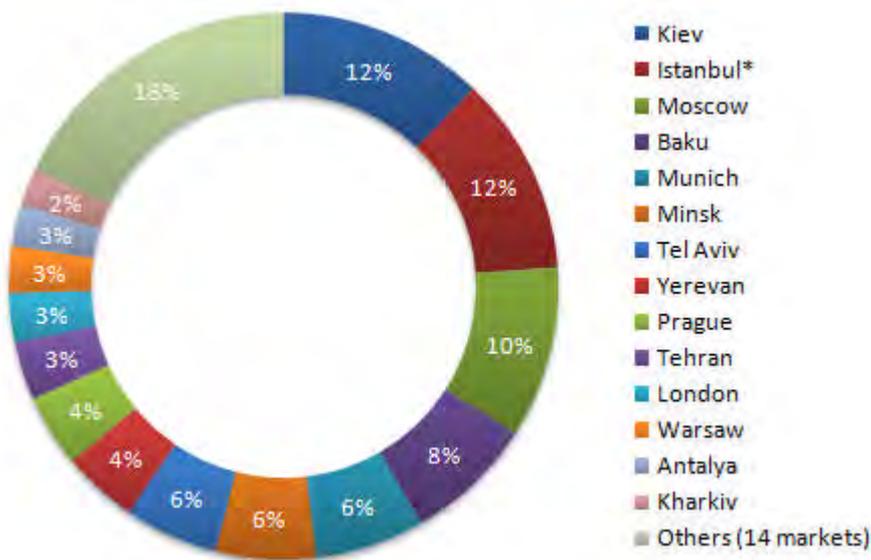


Source: prepared by the consultant with information from OAG (September 2011 to August 2012) and airlines schedules

As seen in the previous graph, Ukraine, the country with the largest capacity share from TBS, only accounts for 17% of the available seats. Following Ukraine are Turkey and the Russian Federation with 14% and 10% of the seat capacity respectively. Each of the remaining 17 countries' capacity share is smaller than 10%, revealing a much diversified destination pattern.

Capacity is even more fragmented in terms of markets, as none of the markets accounts for more than 12% of the available seats (Figure 23).

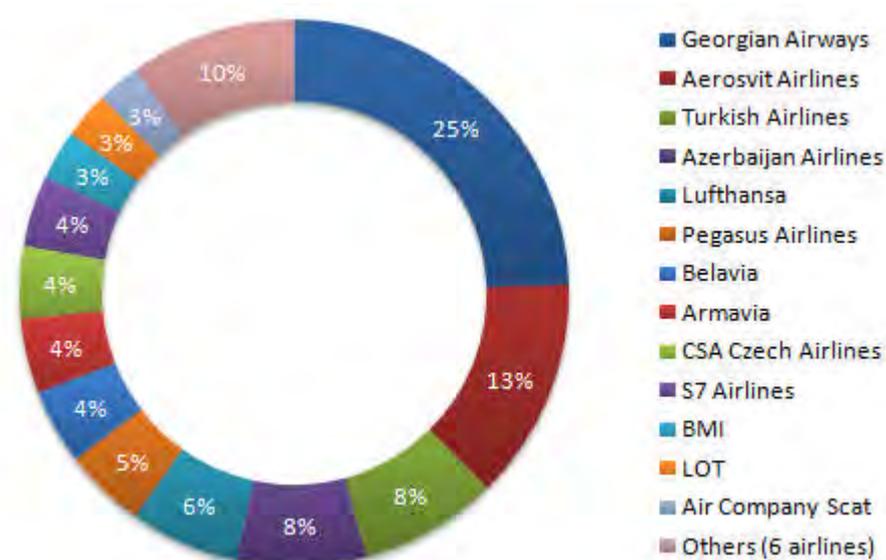
Figure 23 – International Seat Capacity from TBS (by market)



Source: prepared by the consultant with information from OAG (September 2011 to August 2012) and airlines schedules
 * includes Atatürk International and Sabiha Gökçen International

Kiev is the most important international market from TBS, with 12% of the available seats. It is served by two Ukrainian carriers, Ukraine International Airlines, with daily flights, and Aerosvit Airlines, with double-daily services. Kiev is closely followed by Istanbul, also with a 12% capacity share, which is operated by Turkish Airlines with double-daily flights to Atatürk International, and Pegasus Airlines, with daily flights to Sabiha Gökçen International. Moscow and Baku are the third and fourth markets out of TBS, with 10% and 8% of the available seats respectively, and are followed by 24 other markets each with 6% or less of the available seats.

TBS is served by 19 international carriers. The local Georgian Airways is the most important operator at TBS in terms of available seats (Figure 24).

Figure 23 – International Seat Capacity from TBS, by airline

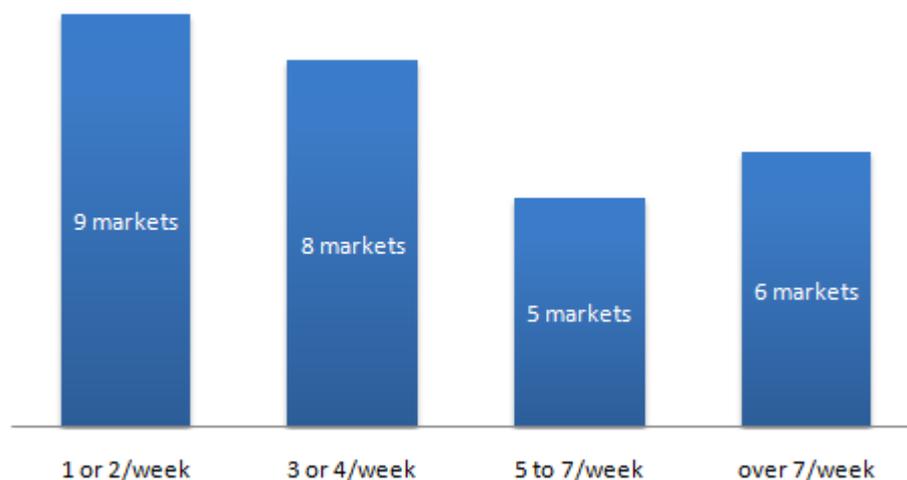
Source: prepared by the consultant with information from OAG (September 2011 to August 2012) and airlines schedules

Georgian Airways controls 25% of the seat capacity from TBS, which for a local carrier is not a significant figure, given the fact that Georgia is not a very big market. The local carrier is followed by Aerosvit Airlines with 13%, and Turkish Airlines and Azerbaijan Airlines with 8% each. The remaining 46% of the seats are split among fifteen foreign carriers.

The imbalance in the market share of Georgian Airways vs. foreign carriers suggests that there are no capacity controls in the market. When governments place capacity restrictions in order to protect the national airlines, more often than not the airlines of each country end up with around 50% of the offered capacity.

Such an important variety in the supply is the result of the liberalized aviation policy adopted by the Government. The presence of 19 airlines provides interest connectivity for such a modest sized market.

International services at TBS are fairly well developed, with eleven markets being served with at least 5 weekly flights (Figure 25).

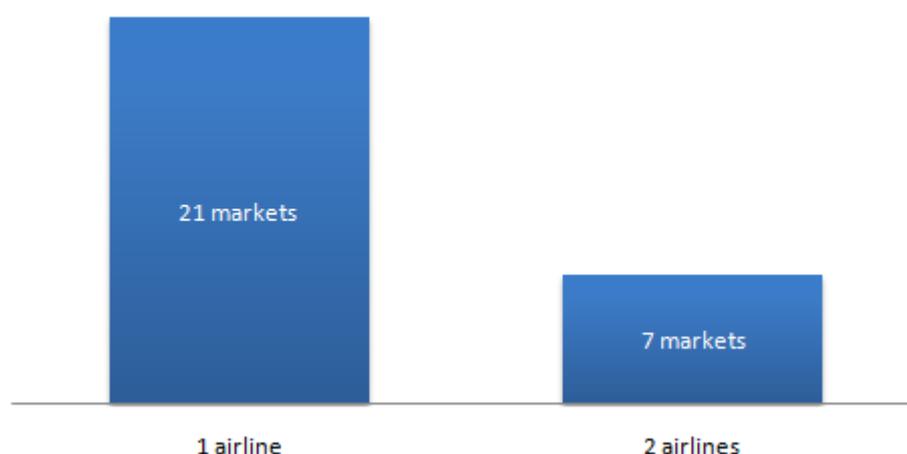
Figure 25 – Number of International Markets from TBS by Frequency of Service

Source: prepared by the consultant with information from OAG (September 2011 to August 2012) and airlines schedules

A total of six markets receive more than 7 weekly flights. Two of them (Istanbul and Kiev) are served with triple-daily services, and another (Moscow) is operated with double-daily flights. Baku, Minsk and Munich are operated with, on average, between 8 and 12 flights per week.

There are five markets (Yerevan, Tel Aviv, Antalya, Prague, and Tehran) served with between 5 and 7 weekly flights, and another eight markets that receive 3 or 4 weekly services. Only nine of the 28 markets are operated with 2 flights per week or less.

Competition on a market level is pretty limited, with only 7 markets (from a total of 28) being served by two airlines, and the remaining 21 operated by just one carrier (Figure 26).

Figure 26 – Option of Carriers per Market

Source: prepared by the consultant with information from OAG (September 2011 to August 2012) and airlines schedules

The limited number of options of carriers per market appears to be related to the relatively low participation of Georgian Airways, the local carrier, in international markets, rather than to a government policy to restrict market access to foreign carriers. As a matter of fact, Georgian Airways only operates to one of the five largest (and presumably most profitable) markets out of TBS, which is a sign that there are no restrictions with regards to market access by foreign carriers.

BATUMI

Batumi is located on the Black Sea coast, and is the country's preferred summer destination. The airport is well connected to Tbilisi, particularly during the summer periods and on weekends. In addition, the airport is connected during the higher season with other sources of tourist traffic.

The airport also enjoys proximity to Turkey's border. Facilitated by the hassle-free migratory controls on the border between the two countries, Batumi is a good option for residents of the eastern areas of the Turkey. In fact, Turkish Airlines operates 7 weekly flights to Istanbul during the summer time and up to 5 weekly flights during the low season. In addition, it operates 3 weekly flights to Ankara during the summer season.

From the statistics published by the United Transport Administration, Batumi accounts for 9.6% of passengers that arrived by air in 2010.

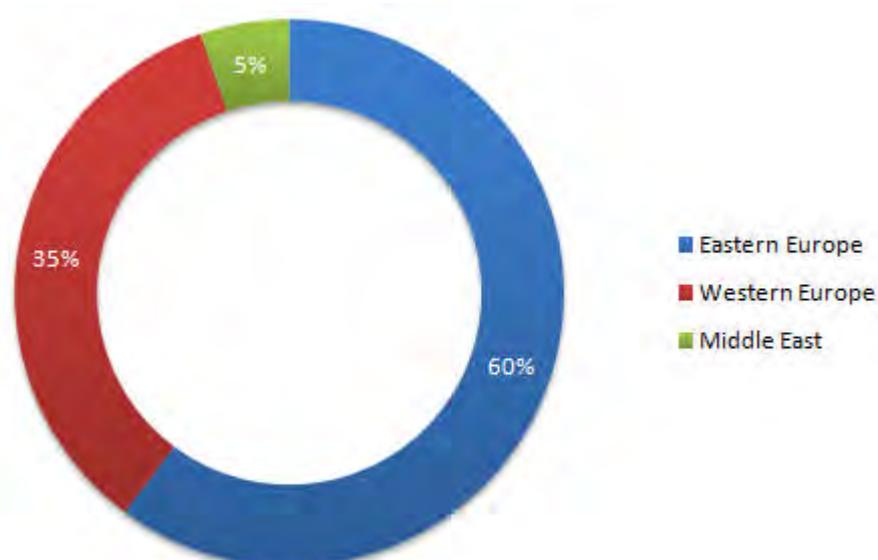
BUS has international non-stop services to 9 markets in Eastern and Western Europe and the Middle East (Figure 27).

Figure 27 – International Markets Served from Batumi

#	Region	Country	Market	Carriers
1	Eastern Europe	Belarus	Minsk	Belavia
2		Russian Federation	Moscow	Georgian Airways
3		Ukraine	Donetsk	Georgian Airways
4		Ukraine	Kharkiv	Georgian Airways
5		Ukraine	Kiev	Georgian Airways, Aerosvit Airlines
6		Ukraine	Odessa	Georgian Airways
7	Western Europe	Turkey	Istanbul	Turkish Airlines
8	Middle East	Iran	Tehran	Georgian Airways
9		Israel	Tel Aviv	Georgian Airways

Source: prepared by the consultant with information from OAG (September 2011 to August 2012) and airlines schedules

With seven out of nine markets from BUS, Europe concentrates most of the seat capacity (Figure 28).

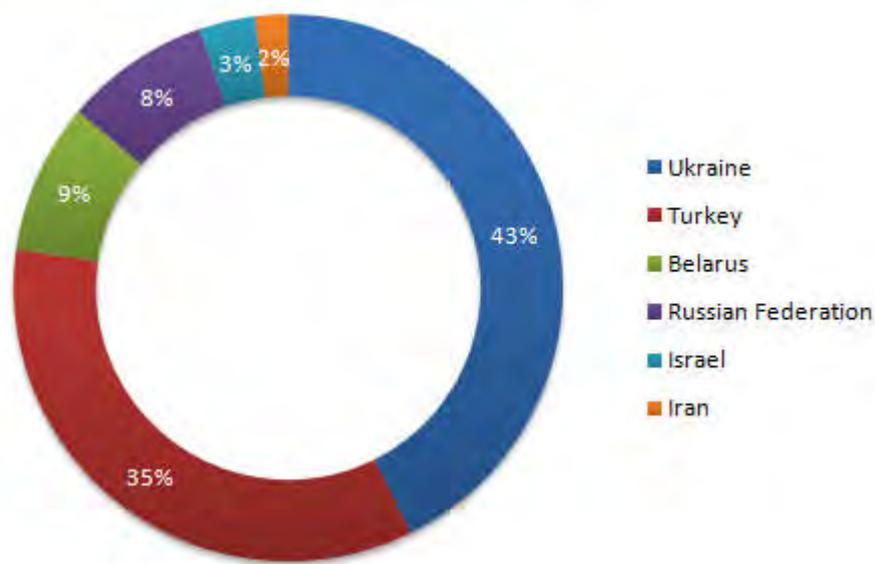
Figure 28 – International Seat Capacity from BUS (by arrival region)

Source: prepared by the consultant with information from OAG (September 2011 to August 2012) and airlines schedules

Eastern Europe accounts for 60% of the available seats from BUS, while Western Europe (with only one market, Istanbul) holds another 35%, with the remaining 5% allocated to the Middle East.

In terms of countries, Ukraine concentrates the largest capacity share from BUS (Figure 29).

Figure 29 – International Seat Capacity from BUS (by arrival country)

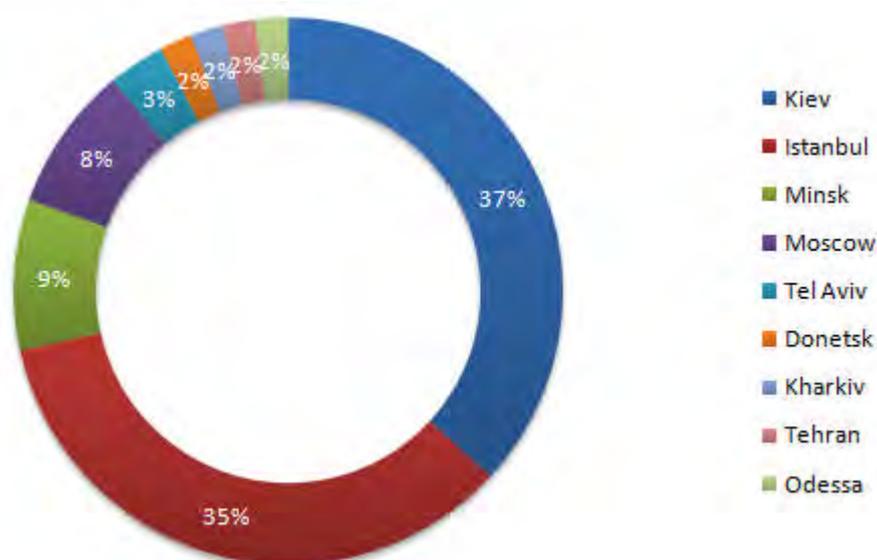


Source: prepared by the consultant with information from OAG (September 2011 to August 2012) and airlines schedules

Ukraine is connected to Batumi from four cities (Donetsk, Kharkiv, Kiev, and Odessa) and represents as much as 43% of the total available seats from BUS. Turkey, with services to Istanbul and Ankara, represents 35% of the capacity share. These two countries combined account for close to 80% of the available seats offered from Batumi. Belarus and the Russian Federation account for 9% and 8% of the seat capacity, and the remaining share is split between Israel and Iran.

Kiev and Istanbul are the single largest markets out of BUS, with 37% and 35% of the available seats respectively (Figure 30).

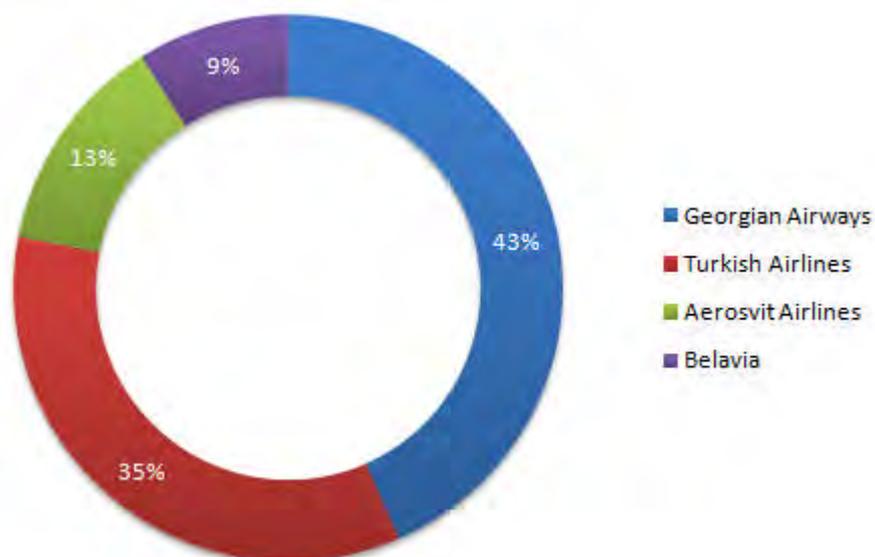
Figure 30 – International Seat Capacity from BUS (by market)



Source: prepared by the consultant with information from OAG (September 2011 to August 2012) and airlines schedules

There is a considerable degree of concentration at the market level, with the first two markets accounting for over 70% of the available seats. Minsk and Moscow hold a 9% and 8% capacity share respectively, and each of the remaining five markets account for between 3% and 2% of seat capacity.

BUS is served by four carriers with scheduled services (Figure 31).

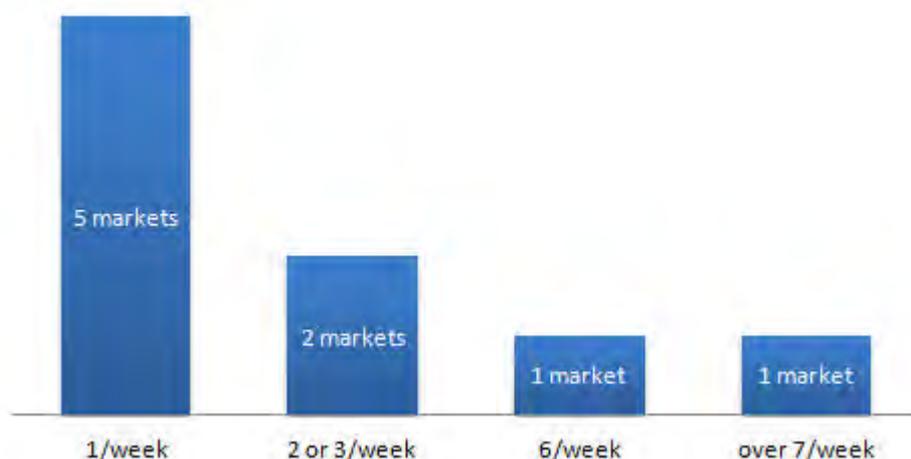
Figure 31 – International Seat Capacity from BUS (by airline)

Source: prepared by the consultant with information from OAG (September 2011 to August 2012) and airlines schedules

The local Georgian Airways serves seven of the nine markets from BUS, and controls a 43% capacity share. The remaining carriers, all foreign, only operate services between BUS and one destination in their home countries. Turkish Airlines, accounts for 35% of the seat capacity. Aerosvit Airlines operates the BUS-Kiev route along with Georgian Airways and holds a 13% capacity share, and Belavia, the only carrier flying between BUS and Minsk, accounts for the remaining 9% of available seats.

Most markets out of BUS are operated with low weekly frequencies, as seen in the following chart (Figure 32).

Figure 32 – Number of International Markets from BUS by Frequency of Service



Source: prepared by the consultant with information from OAG (September 2011 to August 2012) and airlines schedules

Five out of nine markets (Tel Aviv, Donetsk, Kharkiv, Odessa and Tehran) are operated with just one weekly flight, and another two (Moscow and Minsk) receive 2 or 3 weekly services. Istanbul and Kiev are the only markets with more developed services, the former receives almost daily flights, and the latter is operated with 11 weekly frequencies.

Most markets are served by just one carrier, as seen in the following chart (Figure 33)

Figure 33 – Option of Carriers per Market



Source: prepared by the consultant with information from OAG (September 2011 to August 2012) and airlines schedules

Kiev, operated by Georgian Airways and Aerosvit Airlines, is the only market where passengers have a choice of airline; the other 8 markets are operated by just one carrier.

CONCLUSIONS ON THE MARKET ASSESSMENT

TBS is Georgia's main international gateway. The airport presents a high level of connectivity with services to numerous destinations mainly in Eastern and Western Europe, and also in the Middle East and Asia. Seat capacity is highly fragmented, indicating that most destination regions, countries, and markets are operated with adequate supply levels.

The local Georgian Airways controls just 25% of the available seats from TBS, confirming the absence of any capacity controls on foreign carriers.

Only nine of the 28 markets are served with less than three weekly frequencies. There are thirteen markets operated with 3 or 7 weekly flights, and another 6 markets operated with more than one daily service.

Competition on a market level is not abundant, with only 7 markets operated by two airlines, and the remaining 21 markets served by just one carrier. Given the Government's liberal aviation policy, the low level of competition in these markets appears to be related to market dynamics rather than on limitations applied to foreign carriers.

Batumi has services mainly to European markets, plus two destinations in the Middle East. The airport has an extended catchment area that covers the local population, and also a significant number of Turkish nationals that take advantage of the proximity of BUS to the Georgia-Turkey border and use the airport instead of flying through Istanbul.

In summary, Georgia's air connectivity is well developed, in large part presumably thanks to its liberalized aviation policy. Some of the markets are operated with a relatively low number of frequencies and/or with low levels of competition among airlines, but that appears to be related mainly to low demand levels rather than on artificial restrictions imposed by the regulators.

D. BENCHMARKING ANALYSIS OF INFRASTRUCTURE COSTS

METHODOLOGY

The benchmarking study compares airport charges at TBS and BUS against thirteen airports in Eastern and Western Europe, the Middle East, and Asia, in order to assess the level of the airport charges currently levied at Georgian airports, and to determine whether or not they place the country's air transport sector in an uncompetitive position vis-a-vis other countries.

The criteria used for the selection of the airports considered those that are the main international markets out of Georgia. The following table (Figure 34) presents the airports used in the analysis.

Figure 34 – Airport Sample Used for the Benchmarking Analysis

#	Country	Airport
1	Armenia	Yerevan – Zvartnots International
2	Azerbaijan	Baku – Heydar Aliyev International
3	Belarus	Minsk National
4	Czech Republic	Prague – Ruzyně International
5	Georgia	Batumi International
6	Georgia	Tbilisi International
7	Germany	Munich
8	Israel	Tel Aviv – Ben Gurion International
9	Kazakhstan	Almaty International
10	Latvia	Riga International
11	Poland	Warsaw – Chopin International
12	Russian Federation	Moscow – Domodedovo International
13	Russian Federation	Moscow – Sheremetyevo International
14	Turkey	Istanbul – Atatürk International
15	Ukraine	Kiev – Boryspil International

Source: prepared by the consultant

The analysis covers the following aeronautical charges:

- Landing fees (and night surcharges)
- Aircraft parking fees

- Boarding bridge fees
- Passenger charges (including boarding fee, security fee, and other fees and charges levied on passengers)

The comparison was made for two different aircraft types, the narrow-body Airbus A320, and the wide-body Boeing 767-300, with the following technical characteristics (Figure 35). Since the relative differences between airports for both aircraft types is almost identical, the comparison of the charges for the Boeing 767-300 is only included in the section that presents the calculation of the turnaround cost.

Figure 35 – Key Parameters of the Aircraft Used in the Analysis

Aircraft	Airbus A320	Boeing 767-300
Fuselage	narrow-body	wide-body
Range	short and medium	medium and long
Maximum take-off weight (MTOW)	77 tons	187 tons
Seating capacity	164 seats	269 seats
Assumed load factor	72%	72%

Source: Airbus S.A.S. and Boeing Commercial Airplanes

Information was obtained from several sources: for regulated charges, the primary source has been the respective airports, either by accessing their own Aeronautical Information Publication (AIP) or by telephone contact. The information was also crosschecked with the Airport & Air Navigation Charges Manual¹⁹ published by the International Air Transport Association (IATA). IATA compiles information from about 300 airports worldwide and updates it on a regular basis (depending on the facility, most major airports semiannual).

Since the benchmarking study covers only international flights, the “international” price was used at airports that set different rates for international and domestic operations.

To make sure the analysis is an “apples to apples” comparison, charges had to be aggregated in order to obtain a comparable set of components. Independent comparison for specific charges requires specific assumptions regarding type of aircraft used, time spent on the ground, load factor (number of passengers on board or percentage of the aircraft occupied), etc. For example, time-based charges, such as aircraft parking or use of boarding bridges, were compared for different periods.

All values were calculated in US dollars. For tariffs denominated in local currency, the official exchange rate as of September 12, 2011 was used to convert the values to US dollars.

LANDING FEES AND NIGHT SURCHARGES

Landing fees are based on the aircraft MTOW at all of the fifteen airports in the sample, but there are several criteria for their calculation. Some airports, such as TBS and BUS, charge

¹⁹ July 2011 edition

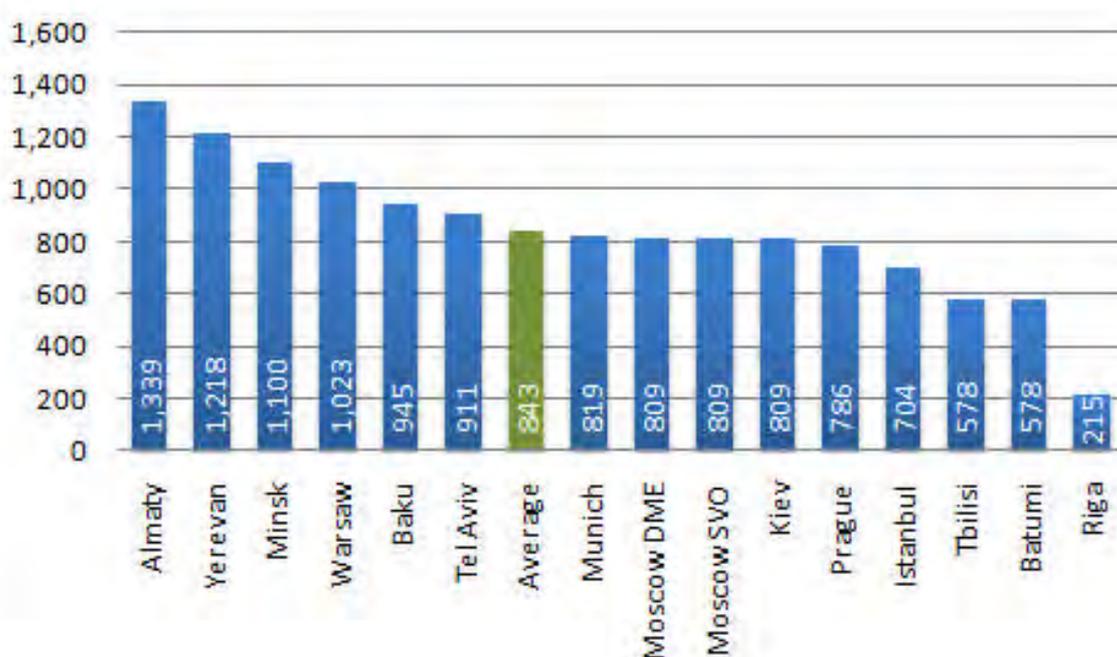
a flat fee per ton of MTOW, whereas others have minimums, or a fixed plus variable component.

Given the variety of approaches existing at different airports for the calculation of landing fees, the analysis compared the total amount due by an airline for the landing of an aircraft with certain characteristics.

Some airports, especially those in Europe, levy a noise charge that varies according to the aircraft noise category (which is usually defined by the airport). Since these charges were created to either avoid (through the operation of quieter aircraft) or penalize the generation of noise during landing and take-off, they were included in the landing fees calculation.

About half of the airports in the sample also include a night surcharge (or lighting surcharge) for operations during night hours. The following charts present the landing fees for an Airbus A320 on daylight operations (Figure 36) and on night operations (Figure 37).

Figure 36 – Landing Fees for an Airbus A320 (daylight operation)

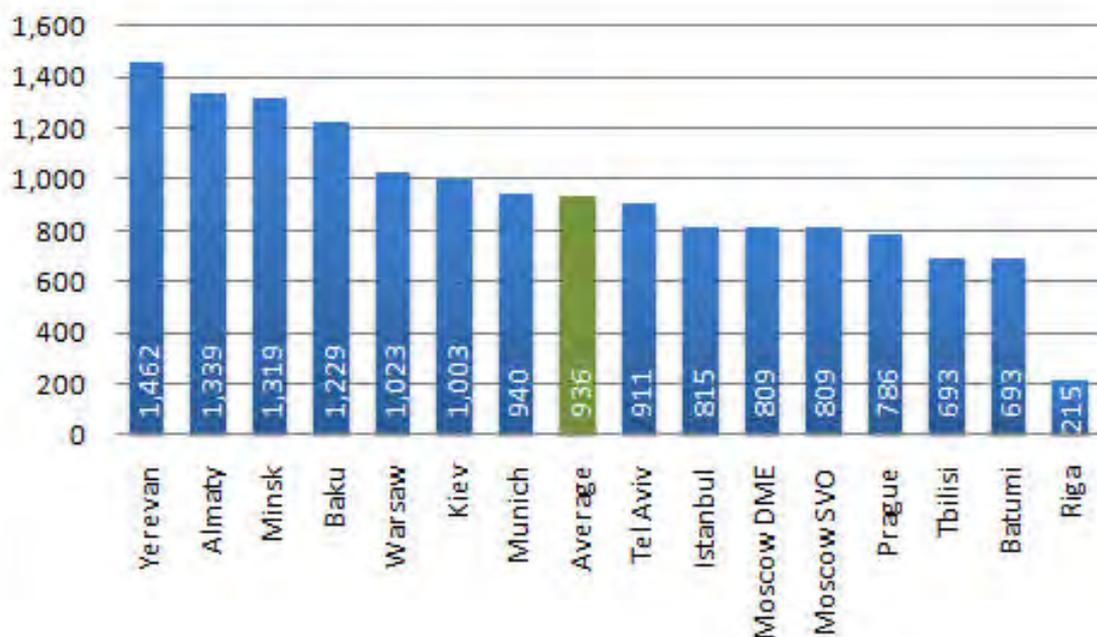


Source: prepared by the consultant with airport’s published charges, information from AIP’s, and IATA’s Airport Charges Manual

Notes: Baku: excludes 20% surcharge applicable on holidays; Minsk: excludes 5% surcharge on peak hour operations; Munich: excludes emissions charge; Ukraine: assumes up to 300 flights per month.

Almaty has the most expensive landing fees for an Airbus A320, at USD 1,339. Riga is the cheapest airport in the sample, with landing fees of USD 215. The average for the sample is USD 843, and both TBS and BUS are 31.4% below the average, with charges of USD 578.

Figure 37 – Landing Fees for an Airbus A320
(night operation)



Source: prepared by the consultant with airport’s published charges, information from AIP’s, and IATA’s Airport Charges Manual
 Notes: Baku: excludes 20% surcharge applicable on holidays; Minsk: excludes 5% surcharge on peak hour operations; Munich: excludes emissions charge; Ukraine: assumes up to 300 flights per month.

Yerevan becomes the most expensive airport for night operations, at USD 1,462. The average is USD 936 and TBS and BUS charge USD 693. Even though the night landing fees at Georgian airports are closer to the sample average (25.9% below the sample average at night vs. 31.4% below during the day), they are still one of the lowest in the sample.

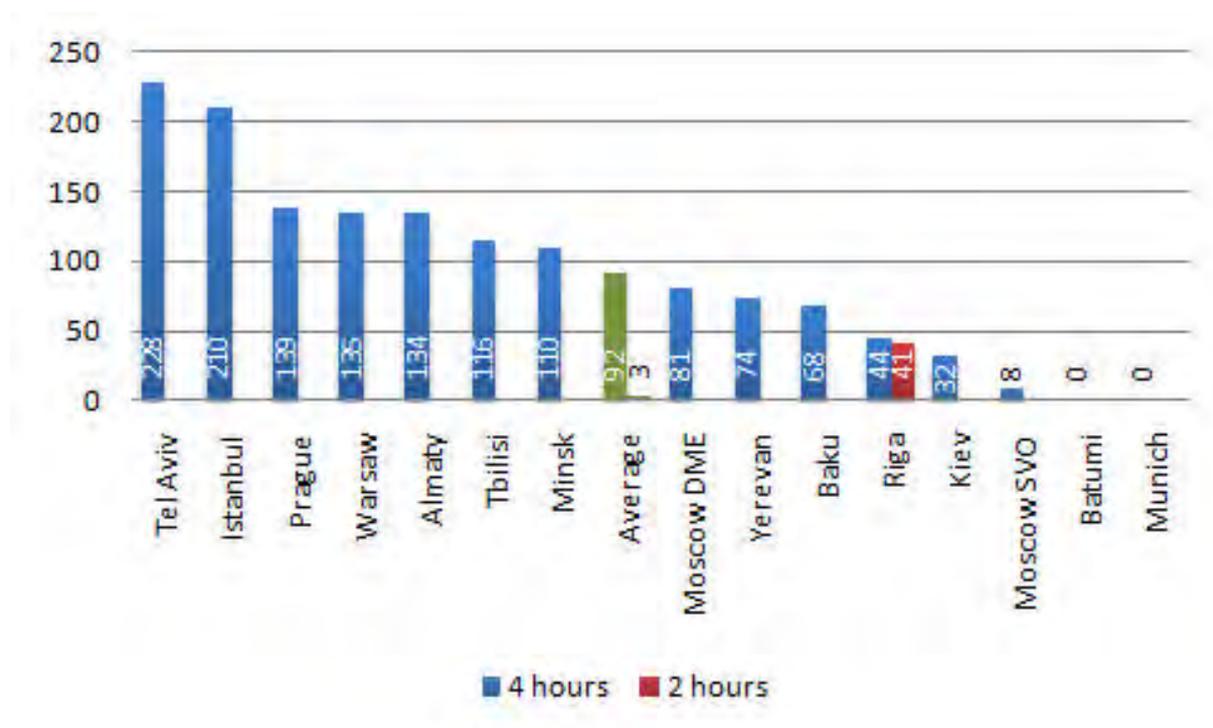
AIRCRAFT PARKING FEES

Aircraft parking fees are time- and weight-based, meaning that they increase with the MTOW of the aircraft and the time that it remains on the ground. Some airports include a period of free time after landing – a grace period - that can range from one hour (in Riga) to as much as four hours (in Prague) from the moment of engine shut down (“chocks-on”).

As with landing fees, given that the criteria for the application of charges varies from one airport to another, the analysis compares the total charge paid by the airlines for 2 and 4 hour parking periods.

The following chart (Figure 38) depicts the parking fees for an Airbus A320. Zero values indicate that the period is within the free time allowance included in the landing and hence the airline is not levied with any additional charges for parking.

Figure 38 – Aircraft Parking Fees for an Airbus A320



Source: prepared by the consultant with airport’s published charges, information from AIP’s, and IATA’s Airport Charges Manual

Notes: Yerevan: assumes charge for non-based carrier

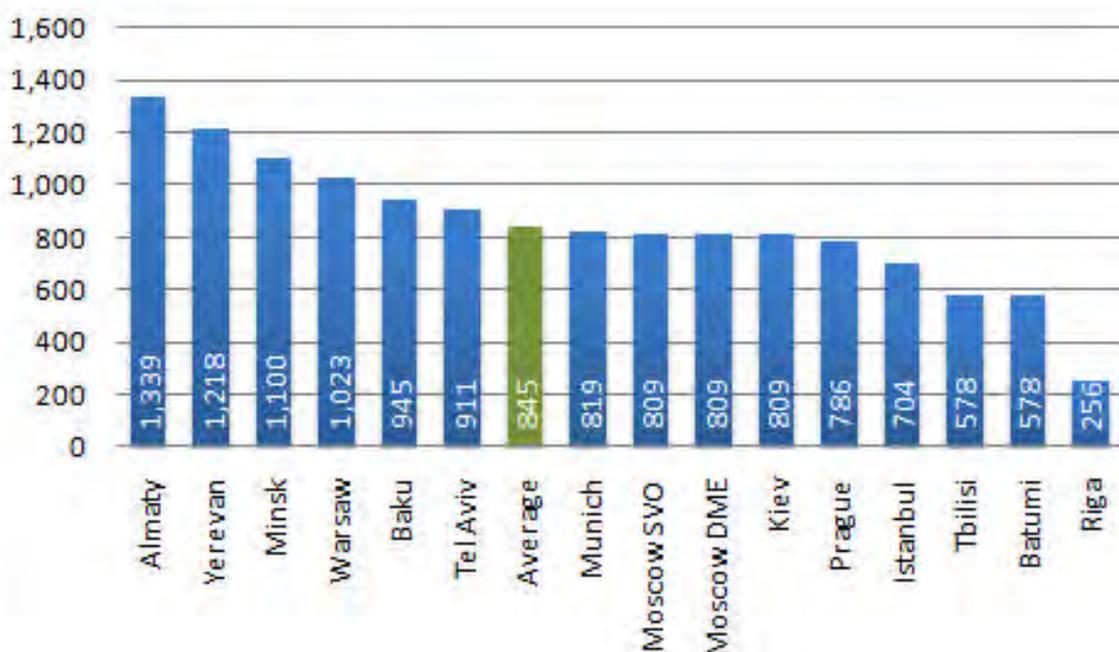
Riga is the only airport with parking charges for a 2 hour period, with charges of USD 41. For 4 hour periods, all airports except Batumi and Munich charge for parking, with charges ranging from USD 228 in Tel Aviv to USD 8 in Moscow Sheremetyevo. The sample average for 4 hour parking periods is USD 92, and Tbilisi is somewhat above the sample average with a parking charge of USD 116.

LANDING AND PARKING CHARGES

As has been seen above, practically none of the airports from this sample charge aircraft parking separately from the landing fees if the aircraft remains on the ground for 2 hours. Therefore, in order to have a fair assessment of the cost of landing fees, it has to be aggregated with the cost for parking, to make a more comparable analysis.

In the following graphs (Figure 39 and Figure 40), the consolidated cost of landing and parking is represented for the same sample of airports.

Figure 39 – Landing Fees and Parking Charge for an Airbus A320
(daylight operation, 2 hours parking)



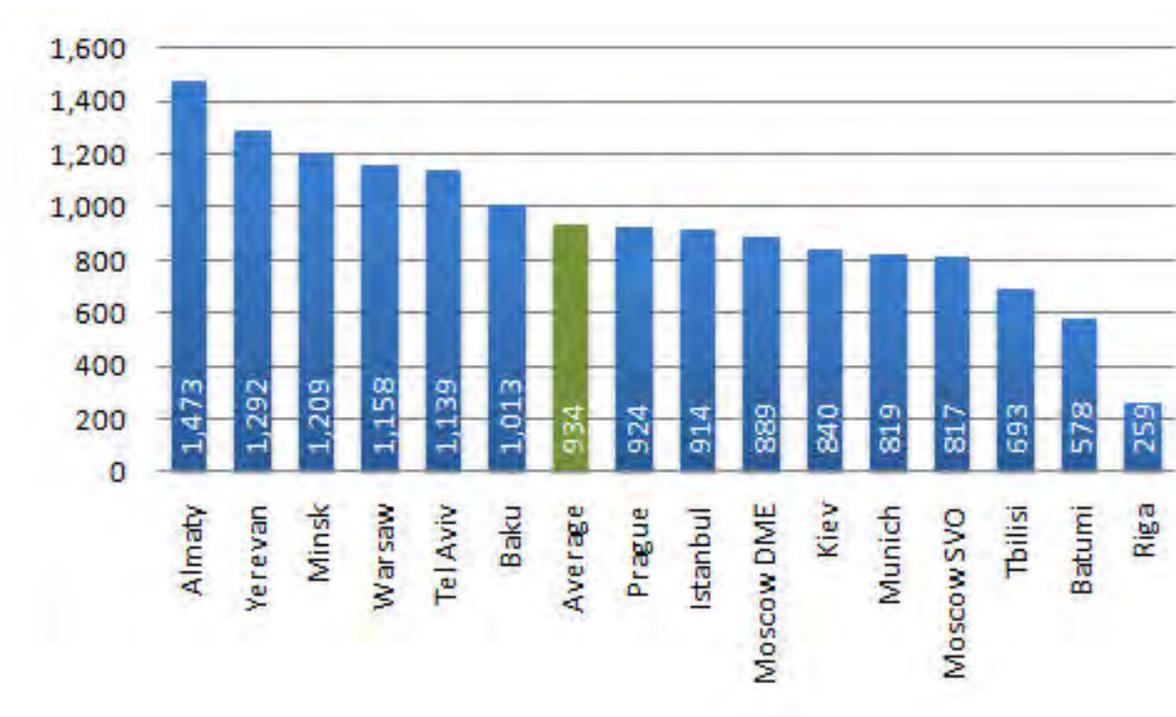
Source: prepared by the consultant with airport’s published charges, information from AIP’s, and IATA’s Airport Charges Manual

Notes: Baku: excludes 20% surcharge applicable on holidays; Minsk: excludes 5% surcharge on peak hour operations; Munich: excludes emissions charge; Ukraine: assumes up to 300 flights per month; Yerevan: assumes charge for non-based carrier.

Riga is the only airport that charges parking for 2 hour periods, and even when the parking charge is added to the landing fees, Riga is still the least expensive airport in the sample, and less than half the second ranked airport.

Since parking at TBS and BUS for 2 hours falls within the grace period, the charges at the Georgian airports remain unmodified.

Figure 40 – Landing Fees and Parking Charges for an Airbus A320
(daylight operation, 4 hours parking)



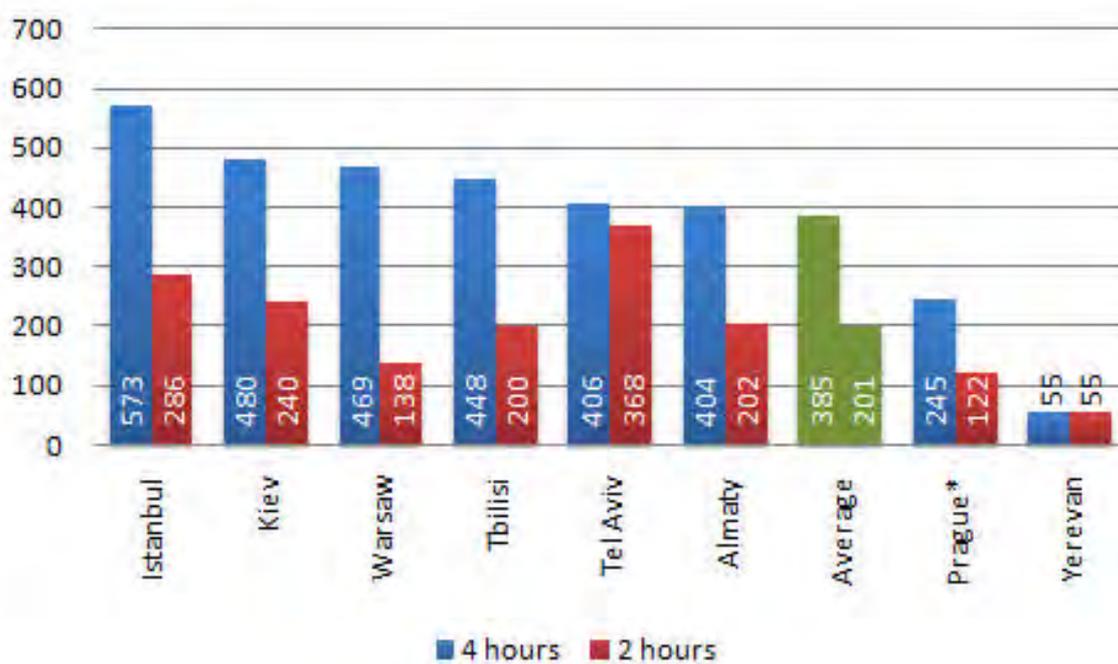
Source: prepared by the consultant with airport’s published charges, information from AIP’s, and IATA’s Airport Charges Manual
 Notes: Baku: excludes 20% surcharge applicable on holidays; Minsk: excludes 5% surcharge on peak hour operations; Munich: excludes emissions charge; Ukraine: assumes up to 300 flights per month; Yerevan: assumes charge for non-based carrier.

Landing and parking fees for a 4 hour period at TBS increase to USD 692, vs. 578 for a 2 hour period. Still, TBS is one of the least expensive airports in the sample, and over 25% below the sample average. Parking at BUS is free of charge, so only the USD 578 landing fee applies, leaving the airport as the second least expensive in the sample.

BOARDING BRIDGE FEES

Boarding bridge fees are also time and weight-based like parking charges, although there is an additional methodology which consists of a fixed fee per connection, regardless of the aircraft size or the time it stays connected to the gate.

The comparison of boarding bridge fees follows the same approach as the one used for the calculation of aircraft parking fees, consisting on the estimation of the total charge that applies for a certain aircraft type using the boarding bridge for 2 or 4 hour periods. The following chart (Figure 41) presents the boarding bridge charges for an Airbus A320. The chart only includes the airports where there is a differentiated charge for the boarding bridges.

Figure 41 – Boarding Bridge Fees for an Airbus A320

Source: prepared by the consultant with airport's published charges, information from AIP's, and IATA's Airport Charges Manual

* Fixed charge for a maximum of 2 hours. It was assumed that an aircraft using the gate for 4 hours is charged the fixed charge twice.

Boarding bridge fees for 2 hour periods range between USD 286 (Istanbul) and 55 (Yerevan), with an average of USD 201. TBS is right below the sample average at USD 200. For 4 hour periods, the prices double at most airports, Istanbul is still the most expensive airport at USD 573, and Yerevan remains the cheapest with a fixed USD 55 fee per connection, regardless of the time that the boarding bridge is used. The average for the sample rises to USD 379, and TBS goes up to USD 448, 16.3% above the sample average. It must be noted that there are no boarding bridges at Batumi.

PASSENGER CHARGES

Charges levied on passengers (regardless of whether they are collected from the passengers or through the airline ticket) are referred to as "passenger charges" for the purpose of this analysis. Within them, they include the Passenger Facility Charge (PFC, also commonly referred to as the "boarding fee"), security fees, and other government taxes.

Besides the passenger facility charge and security fees, which are usually levied by the airports, there might be other charges imposed by governments (such as a tourist tax for example), which are not collected nor received by the airport operator. These country-specific taxes are included in the analysis, because even though not a part of the airfare, these are considered by passengers as part of the total cost of the trip, and can impact their decision to travel depending on their cost-elasticity function.

The analysis includes two comparisons, one including only the fees and charges levied by the airports, and the second including all the additional charges and taxes levied on the passengers, including government taxes and related fees.

All passenger charges are per departing international passenger. For airports charging individually for arriving and departing passengers, both charges were considered as if collected on departing passengers.

Charges other than the passenger facility charge (PFC) and security were labeled as “other charges/taxes” The “other charges/taxes” concepts are detailed in a table below (Figure 42).

Figure 42 – Passenger Charges, Fees, and Taxes
(per departing international passenger)

Airport	PFC	Security	Other charges	
			Amount	Remarks
Almaty	18.6 ¹	2.0	-	
Baku	27.3	13.6	1.4 ²	Civil aviation tax
Batumi	12.0	-	-	
Istanbul	15.0	-	-	
Kiev	17.0	4.0	2.0	Government tax
Minsk	11.0	5.4	-	
Moscow DME	16.8 ³	6.3	-	
Moscow SVO	16.8 ³	6.3	-	
Munich	24.4	0.8	0.7	Persons with reduced mobility (PRM) charge
Prague	29.2	-	-	
Riga	4.2	-	-	
Tbilisi	22.0	6.4 ⁴	-	
Tel Aviv	29.7 ⁵	-	5	Baggage handling fee
Warsaw	19.1	-	0.7 + 0.3	Baggage charge + PRM charge
Yerevan	24.5	2.7	26.8	Exit tax

Source: prepared by the consultant with airport's published charges, information from AIP's, and IATA's Airport Charges Manual

¹ Security charge levied on the aircraft, prorated by the number of passengers according to the seating capacity and assumed load factor of an Airbus A320

² Assumes passenger travelling in economy class

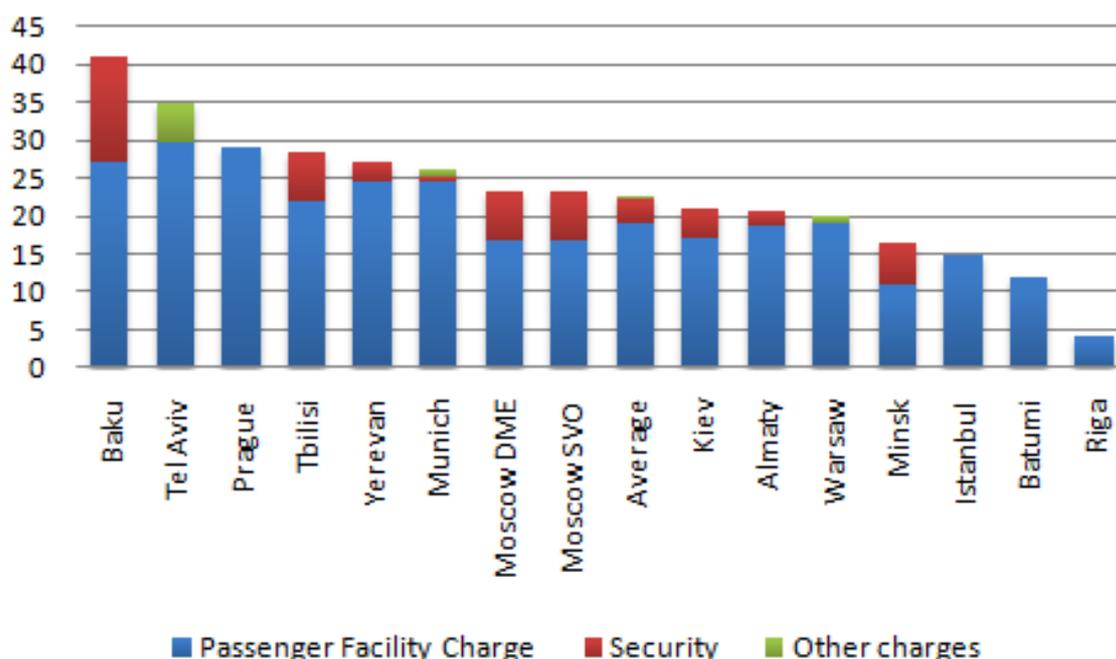
³ USD 8.4 per arriving and departing passenger

⁴ Security charge has a per passenger and a per aircraft component. The per aircraft component was prorated by the number of passengers according to the seating capacity and assumed load factor of an Airbus A320

⁵ Includes a charge paid by airlines per each arriving passenger

The following chart (Figure 43) presents the passenger charges levied by the airport, such as the PFC, security fees, baggage handling fees, etc.

Figure 43 – Passenger Charges Levied by the Airport
(per departing international passenger)



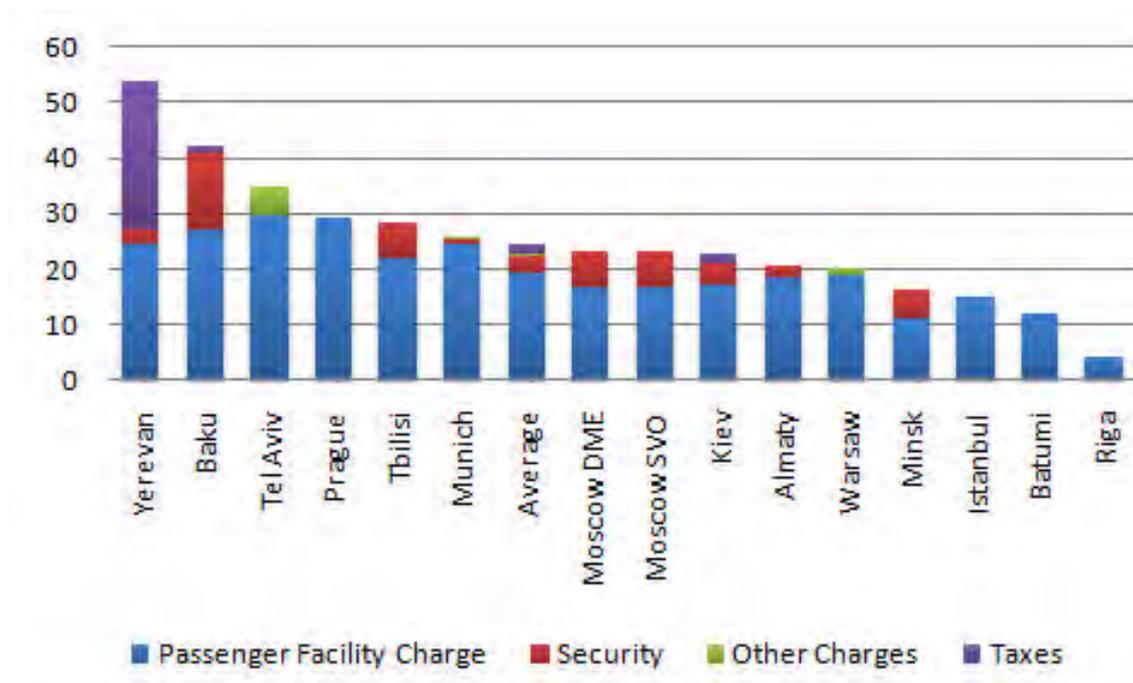
Source: prepared by the consultant with airport’s published charges, information from AIP’s, and IATA’s Airport Charges Manual
 Other charges: Tel Aviv: baggage handling fee; Munich: PRM fee; Warsaw: baggage handling and PRM fees.
 Note: value labels not shown because of formatting reasons

Passenger charges levied by the airport (per departing passenger) range from USD 40.9 in Baku to USD 4.2 in Riga, with an average for the sample of USD 22.7. TBS is among the most expensive airports, with a charge of USD 28.4 per departing passenger, composed of a USD 22 passenger facility charge and a USD 6.4 security fee²⁰. Batumi on the other hand is one of the least expensive airports, as it has a USD 12 passenger facility charge and no security fees.

The following chart (Figure 44) presents all the charges, fees, and taxes levied on passengers.

²⁰ It must be noted that the security fee at TBS has a per passenger component and a per aircraft component. The per aircraft component was prorated by the number of passengers.

Figure 44 – All Charges, Fees, and Taxes Levied on Passengers
(per departing international passenger)



Source: prepared by the consultant with airport’s published charges, information from AIP’s, and IATA’s Airport Charges Manual
 Note: value labels not shown for formatting reasons

When considering all taxes and charges, Yerevan becomes the most expensive airport due to the USD 26.8 Exit Tax levied on local and foreign passengers traveling abroad. As for TBS and BUS, charges at these airports remain constant as there are no additional fees and taxes to the passenger facility charge and security fee. After adding the other charges, the cost per passenger at TBS is still among the highest in the sample, while BUS remains as one of the least expensive airports on a per passenger basis.

TOTAL TURNAROUND COST

Since some of the airport charges are aircraft-based and others are passenger-based, the proper way to compare overall aeronautical charges is to add them together to determine the cost of a turnaround. A turnaround refers to all the activities that take place on the ground between the aircraft’s arrival and its subsequent departure, and for the purpose of this section it includes the following charges:

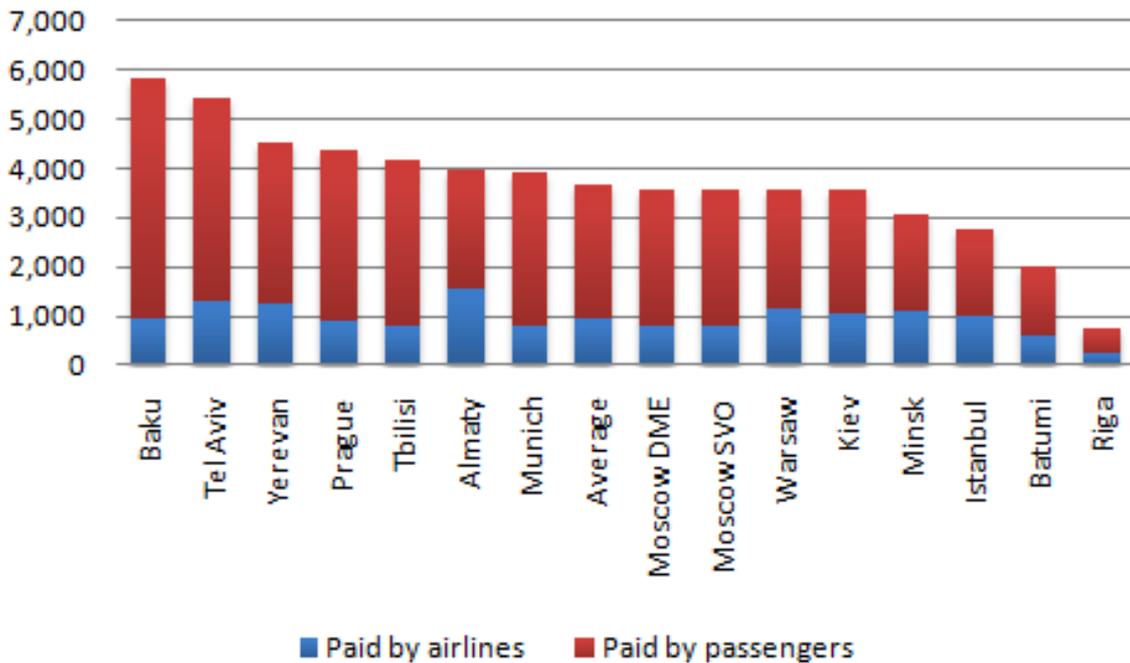
- Landing fees
- Aircraft parking fees
- Boarding bridge fees
- Passenger charges (including passenger facility charge, security fee, and other charges levied by the airport; government taxes are excluded)

The calculation was performed for an Airbus A320 and a Boeing 767-300 with a 72% passenger load factor.

The following graph (Figure 45) presents the turnaround charges for an Airbus A320.

Figure 45 – Turnaround Costs for an Airbus A320

(includes landing fees, parking - 2 hours, boarding bridges - 2 hours, and passenger charges levied by the airport*)



Source: prepared by the consultant with airport’s published charges, information from AIP’s, and IATA’s Airport Charges Manual

* includes charges other than the PFC, such as baggage handling fees, excludes federal taxes

Note: value labels not shown because of formatting reasons

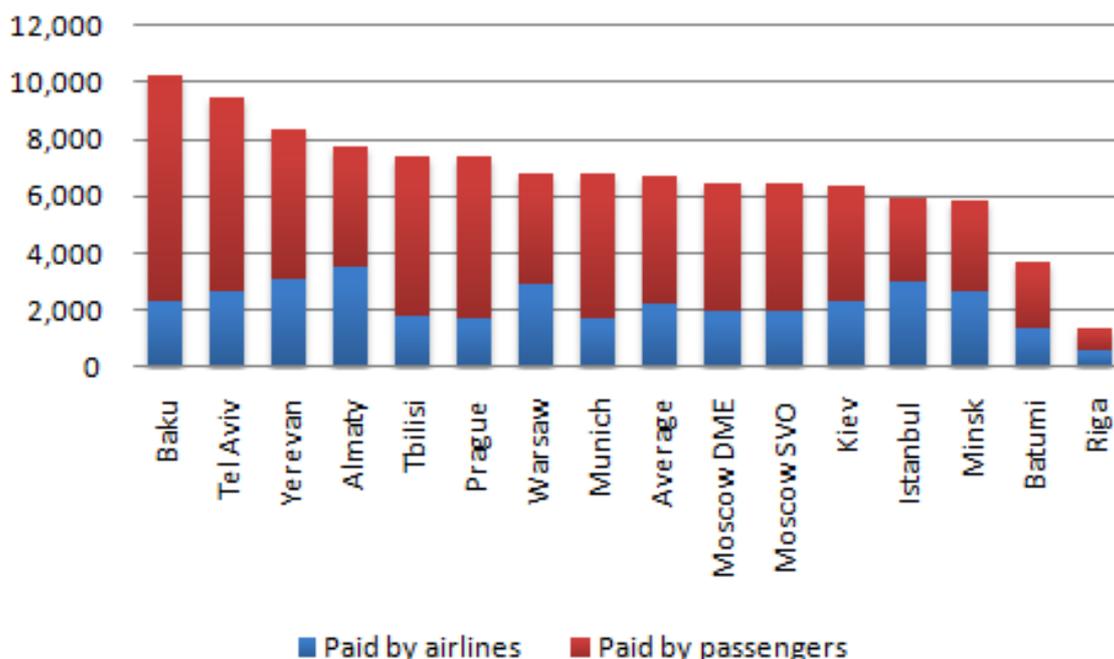
Turnaround charges for an Airbus A320 at TBS total USD 4,155, 13.3% above the USD 3,665 average. At USD 778, TBS has one of the least expensive charges paid by airlines (landing, parking, and boarding bridge fees), and is 18.3% below the sample average charges paid by airlines, which is USD 953. Considering only charges paid by airlines, TBS is only more expensive than Riga and Batumi. On the other hand, TBS has the fourth highest passenger charges, at USD 28.4 per departing international passenger, making the airport the fourth most expensive in the sample when considering turnaround charges paid by passengers. Turnaround charges paid by passengers at TBS total USD 3,377, 24.5% higher than the average for the sample.

BUS is among the least expensive airports in the sample when considering total turnaround charges, as it has one of the lowest charges paid by airlines (USD 578, vs. the USD 953 average), and one of the cheapest charges paid by passengers (USD 1,428, vs. the USD 2,712 average). Total turnaround charges at BUS are USD 2,006, over 45% lower than the USD 3,665 average.

The following chart (Figure 46) presents the total turnaround charges for a Boeing 767-300.

Figure 46 – Turnaround Costs for a Boeing 767-300

(includes landing fees, parking - 3 hours, boarding bridges - 3 hours, and passenger charges levied by the airport*)



Source: prepared by the consultant with airport’s published charges, information from AIP’s, and IATA’s Airport Charges Manual

* includes charges other than the PFC, such as baggage handling fees, excludes federal taxes

Note: value labels not shown because of formatting reasons

In the comparison using a Boeing 767-300, a longer turnaround time is used (three hours instead of two), assuming a longer haul operation and thus an increase in the time required to service the aircraft for a longer journey (more fuel, water, etc.) and a larger payload (passengers and cargo)²¹.

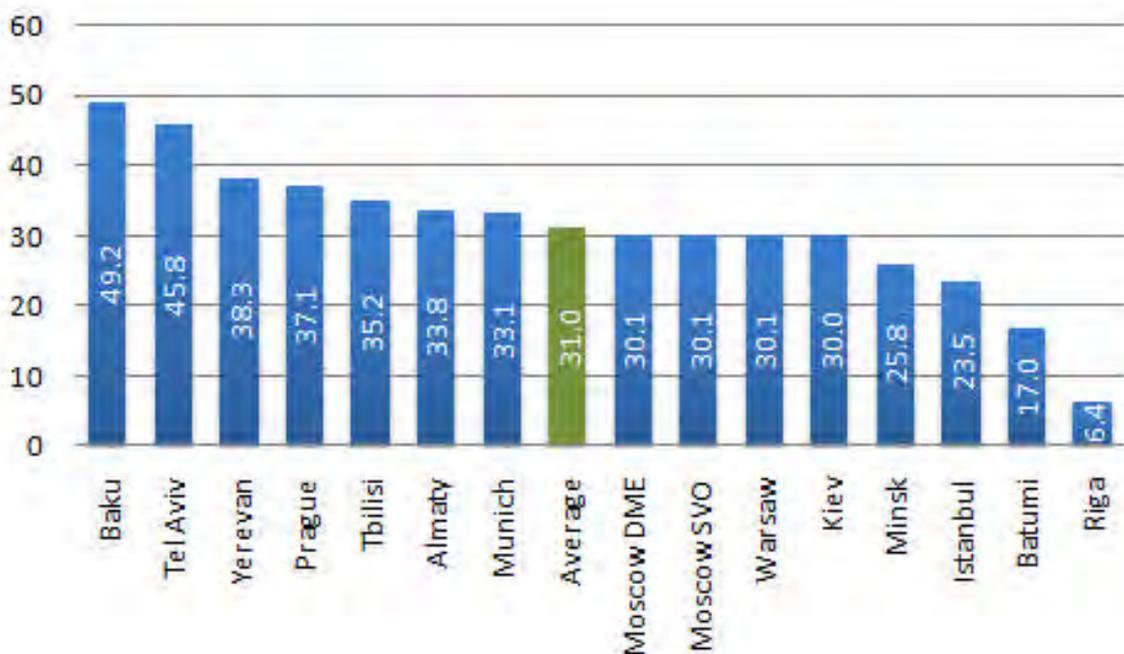
Turnaround charges for a Boeing 767-300 are higher than for an Airbus A320, but the relative differences between airports remains practically unaffected. Total turnaround charges at TBS are USD 7,439, 11.1% higher than the USD 6,694 average (for an Airbus A320, turnaround charges at TBS are 13.3% higher than the sample average). BUS also has among the lowest charges for a Boeing 767-300, with a total turnaround cost of USD 3,731, 44.2% lower than the sample average (for an Airbus A320, BUS is 44.3% lower than the sample average).

²¹ While in fact two hours may be sufficient time for the turnaround of a 767-300 on a long-haul flight, assuming three hours gives the opportunity to carry out a comparison including a specific charge for parking, since most airports have a two-hour grace period included in their landing fee.

The following charts (Figure 47 and Figure 48) compare the total turnaround charges on a per passenger basis for an Airbus A320 and a Boeing 767-300.

Figure 47 – Turnaround Cost per Passenger (for an Airbus A320)

(includes landing fees, parking - 2 hours, boarding bridges - 2 hours, and passenger charges levied by the airport*)



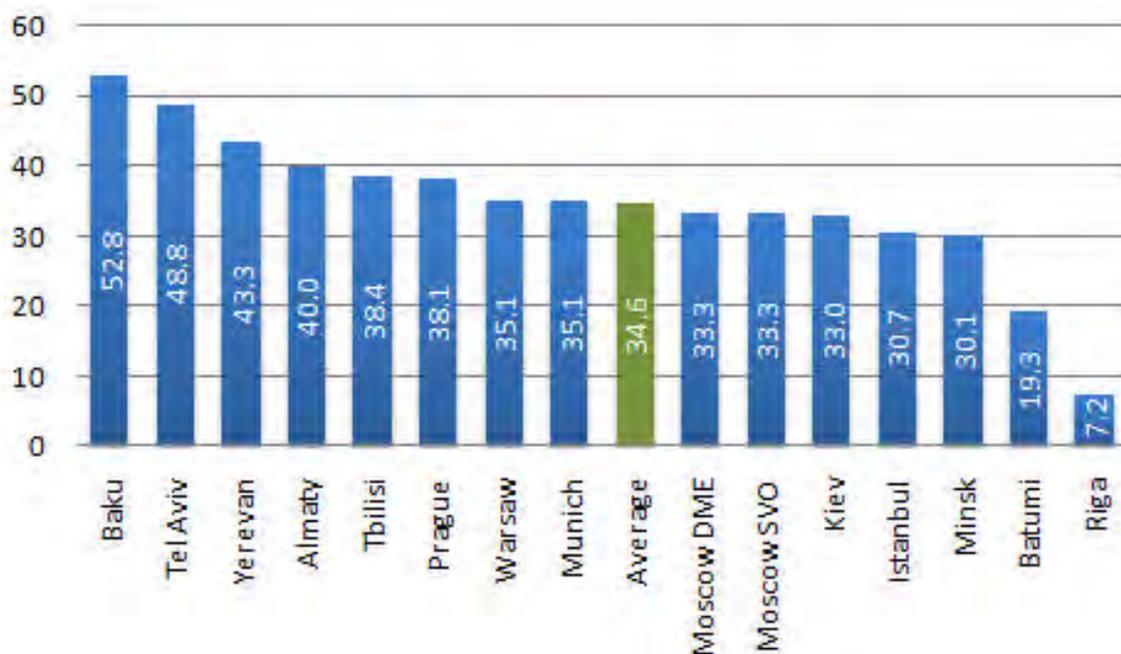
Source: prepared by the consultant with airport’s published charges, information from AIP’s, and IATA’s Airport Charges Manual

* includes charges other than the PFC, such as baggage handling fees, excludes federal taxes

Considering all charges levied on the aircraft and on the passengers, the cost per passenger at TBS is USD 35.2, 13.5% higher than the USD 31.0 average. The cost per passenger at BUS is less than half that at TBS, at USD 17.0 per passenger.

Figure 48 – Turnaround Cost per Passenger (for a Boeing 767-300)

(includes landing fees, parking - 3 hours, boarding bridges - 3 hours, and passenger charges levied by the airport*)



Source: prepared by the consultant with airport’s published charges, information from AIP’s, and IATA’s Airport Charges Manual

* includes charges other than the PFC, such as baggage handling fees, excludes federal taxes

Total aeronautical charges on a per passenger basis for a Boeing 767-300 are slightly higher than for an Airbus A320. The cost per passenger at TBS is USD 38.4 (11.0% higher than the average) and at BUS is USD 19.3 (44.7% lower than the sample average).

CONCLUSIONS ON THE BENCHMARKING OF INFRASTRUCTURE COSTS

Aeronautical charges paid by airlines at TBS are among the lowest in the sample, but they are offset by higher-than-average passenger charges, leaving by the airport; between 11% and 13% more expensive than the sample average (depending on the aircraft type) when considering the total charges paid both by airlines and its passengers.

BUS on the other hand, has among the lowest airport charges in the sample (both when considering charges levied on the aircraft and charges levied on the passengers), and is about 45% cheaper than the sample average.

Although somewhat higher than the sample average, the current level of charges at TBS is within the range of the other airports, and shouldn’t have any significant effect on Georgia’s competitiveness vs. other countries.

E. OUTLINE OF POLICY WHITE PAPER

PROPOSED CONTENTS OF A NATIONAL AVIATION POLICY

The importance of formulating national aviation policy as a White Paper is crucial to guarantee continuity of the policy over time.

The objective of a national aviation policy would be to maximize the air transport sector's contribution to the national economy and social development. The formulation of a national aviation policy should include consideration of the following:

- a. Domestic airline policy covering issues such as:
 - Need for any economic regulation taking account of national competition policy
 - Subsidy policy for any service shortfalls given the forgoing
- b. International airline policy covering issues such as:
 - Government approach to negotiating airline entry bilaterally and multilaterally, including Fifth Freedom and cabotage, airline ownership, cargo etc.
 - Implementation of national rights under ASAs, e.g. airline designation
- c. Airports policy including
 - Airport responsibilities and functions including airport ATC
 - Airport pricing and investment freedom
 - Non-infrastructure service provision policy within airports e.g. ground handling
 - Competition policy
 - Equal treatment, e.g., fueling
 - Private sector participation
- d. Safety policy
 - Allocation of policy and regulatory responsibility (oversight and enforcement)
 - Governance arrangements for safety regulator
 - Funding of the safety regulator
 - Licensing certification and registration
 - Monitoring compliance and inspection
 - Over-sight of airport and ATC safety
- e. ATC
 - ATC functions and objectives
 - ATC governance and accountability
 - ATC funding including the right to charge airlines to recover ATC costs
 - Options for contracting out services
- f. Relationship with International Civil Aviation Organization (ICAO):
 - Funding
 - Staffing and training
 - Compliance with ICAO recommendations
- g. Security policy.
- h. Consumer protection.
- i. Environmental policy.

**USAID Economic Prosperity Initiative (EPI)
6 Samgebro St.
Tbilisi, Georgia**

Phone: +995 32 43 89 24/25/26

Fax: +995 32 43 89 27