Feasibility studies for the rehabilitation of a selection of Bahamian airports

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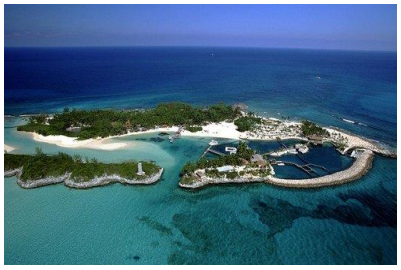
Draft Final Report






ALG TRANSPORTATION INFRASTRUCTURE & LOGISTICS

August 2016

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1 INTRODUCTION

The air transport sector of the Bahamas is currently experiencing a fast-pace evolution, fostered by the reforms triggered by the Ministry of Transports and Aviation (MOTA). As a signatory member of the Chicago Convention of 1944, the Commonwealth of the Bahamas is committed to progressively align the aviation sector of the country with international best practices and International Civil Aviation Organization (ICAO) Standards and Recommended Practices (SARPs).

In this context, the Ministry of Transports and Aviation of the Bahamas is leading a high-impact transformation process throughout the entire air transport sector. The first challenge in the process of aligning the country's air transport sector with international best practices was the separation of regulatory functions and service provision functions in the aviation sector. This consisted in the separation of the national airports operating company (Bahamas Airports Authority) from the national Civil Aviation Department, with the former remaining as regulatory body. The Bahamas Airports Authority is progressively building the capabilities to take over the management of the airport network of the country, including the 28 Family Island airports.

The second challenge faced by the aviation sector of the Bahamas is the rationalization of limited resources in a large network of airports. In this regard, the Civil Aviation Department promoted an optimization of the airports in the Family Islands in order to assess the level of compliance of the airport infrastructure with international standards, assess potential critical safety concerns and prioritize the actions to be taken.

The outcome of the strategic optimization study consisted of the identification of infrastructure needs at the Family Island airports to meet ICAO's SARPs. For that purpose, it proposed a categorization of airports into three Tiers based on traffic volume, international traffic service provision, and local capabilities:

- Tier 1: Airports that are significant "Port of Entry" gateways for the Family Islands and have economic opportunities to be financially sustainable.
- Tier 2: Airports that currently have "Port of Entry" status and provide Customs and Immigration services to Family Islands, where there currently exists international traffic and/or economic development to support limited or shared services.
- Tier 3: Airports that provide domestic services only and that have limited traffic, which require local coordination with island administrators for daily inspections and maintenance.

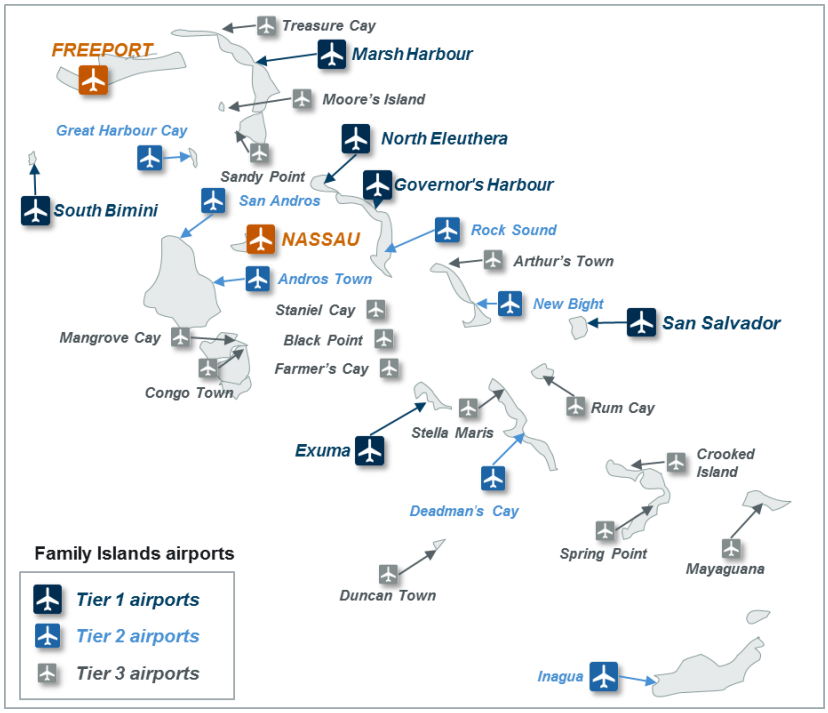


Figure 1: Family Islands airports map

The study concluded on the need to bring Tier 1 and Tier 2 airports up to ICAO standards as a first priority and targeting aerodrome certification for Tier 1 before the next upcoming ICAO audit. Boosted by the need to bring Family Island Airports up to ICAO-SARPs, the Government of The Bahamas is interested in attracting private investments in order to rehabilitate and enhance the existing infrastructure and equipment, upgrade the facilities to handle the expected traffic growth and bring in international expertise to the country. In line with these needs, the Inter-American Development Bank (IDB) has recently visited The Bahamas to explore the opportunity for an investment loan operation to support the needed infrastructure improvements. The new loan could be available for up to 35 mUSD, with the objective of improving the infrastructure, operational and safety performance of the Family Island airports by attracting foreign investors through a Public-Private Partnership (PPP).

The Authorities of Bahamas share the vision of using the IDB loan as a leverage to raise foreign investment on airport infrastructure and enhance the country's alignment with ICAO standards and international best practices on airport management. In this context, IDB and MOTA have agreed upon a two phase approach for the feasibility assessment of airport PPP's in The Bahamas which was structured in two phases:

- Phase 1 - Preliminary outlook of potential opportunities for PPPs: the first phase focused on understanding market dynamics and business opportunities for all Tier 1 and Tier 2 airports in the country, identifying the main demand drivers, infrastructure requirements and operational characteristics of each airport. Finally, a group of four airports was selected for the feasibility assessment; the airports selected were Marsh Harbour, Exuma, North Eleuthera and Treasure Cay.
- Phase 2 - Detailed feasibility assessment of selected airports: the engagement focused on a feasibility assessment for each one of the selected airports. It included a market assessment and forecast, Capital expenditure projections, an environmental assessment and a financial model forecast.

In addition, two other analyses were prepared to provide a holistic assessment of the project:

- Environmental and Social assessment to analyze the status of each airport including a study of environmental agreements and legislations, main stakeholders, , actions under a PPP scheme, risk and impact valuation and the formulation of an Environmental Management Plan during the planning phase.
- Cost Benefit Analysis performed with the objective of measuring the social impact of the Project on the Bahamas and the direct impact on the local economy.

Based on the previous, the purpose of this document is to provide a comprehensive understanding of the feasibility of involving the private sector in the enhancement and operation of selected Family Island airports (Marsh Harbour, Exuma, North Eleuthera and Treasure Cay) throughout a PPP concession.

2 SOCIO-ECONOMIC HIGHLIGHT OF THE BAHAMAS

2.1 Location and access

The Commonwealth of the Bahamas is an island country of the Lucayan Archipelago consisting of over 700 islands, cays, and islets in the Atlantic Ocean, southeast of the US state of Florida. Its population of over 385,000 inhabitants is highly concentrated in five islands (New Providence, Abaco, Andros, Eleuthera and Exuma). The country's total land area is 13,880 square kilometres sprinkled over 250,000 square kilometres of ocean. The archipelago is an ecological oasis and boasts some of the clearest waters on the planet, with a visibility of over 60 feet, and the world's third largest barrier reef.

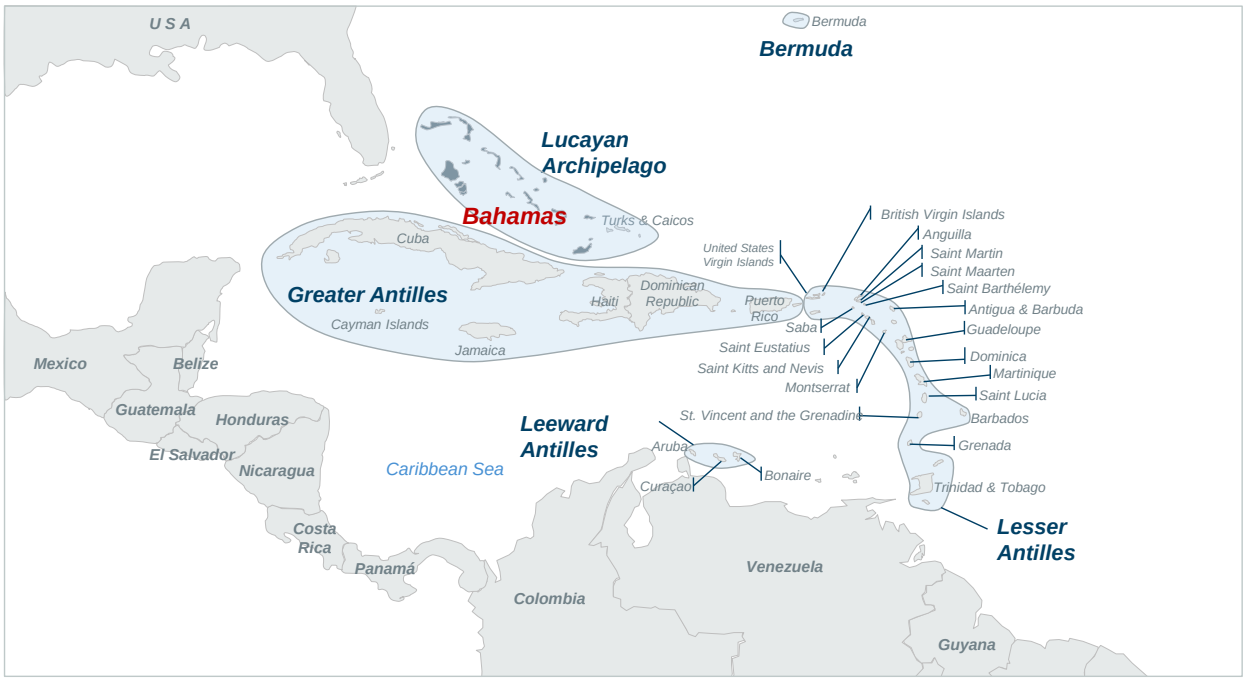


Figure 2: Map of the Caribbean Region

From an infrastructure perspective, the Government is leading important developments, including the expansion of the country's principal airport (Nassau), the deepening of the Nassau Harbour (which can now accommodate the world's largest passenger vessels) and the creation of a new cargo port outside the city of Nassau. In addition, in 2011 the Government privatized the local telecommunications company.[1]

2.2 System of Government

The Bahamas is a member of the Commonwealth of Nations and recognizes Queen Elizabeth II as its head of state. The Governor-General is Her Majesty's representative in The Bahamas and the Cabinet constitutes the executive branch of Government. Parliament, consisting of the Senate and House of Assembly, is the legislative branch. Finally, the judicial authority is conferred to the Judicature composed of the Supreme Court and the Court of Appeal.[2]

At the moment of preparation of this document, The Bahamas has a political system dominated by two parties: the Progressive Liberal Party and the Free National Movement. Parliament comprises 38 members in the House of Assembly and a 16 member Senate. The House of Assembly carries out all major legislative functions.

[1] The Bahamas Investment Authority
[2] The Government of The Bahamas

The last general elections took place on May 7th of 2012, in which the Progressive Liberal Party won a majority in parliament taking 30 of the total 38 seats. The next elections are due in May 2017.

2.3 Bahamas economic performance

In 2014 The Bahamas registered a population of 385,000 inhabitants, a nominal GDP of USD 8,510 m and a GDP per capita of USD 22,217. The Bahamian economy has experienced a slight improvement after the worldwide economic downturn that resulted from the financial crisis in 2008 and the recession that followed. The nation has one of the highest per capita incomes of all the countries in the Caribbean. Its GDP grew at a Compound Annual Growth Rate (CAGR) of 1.1% between 2006 and 2015 and have experienced six consecutive years of GDP growth.

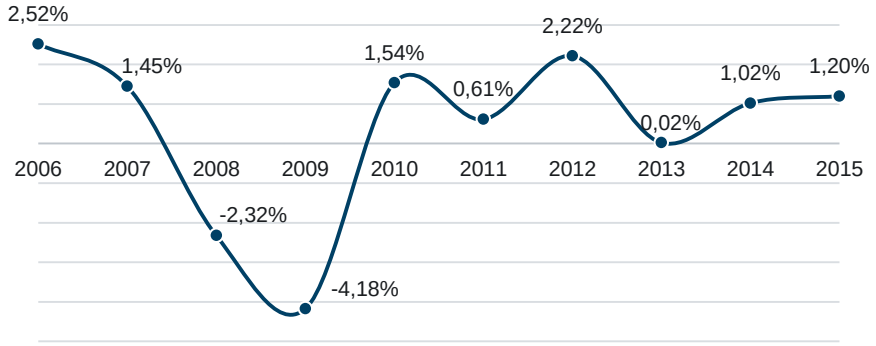


Figure 3: Bahamas GDP evolution 2006-2015

SOURCE: WORLD BANK

The Bahamian economy was affected by the financial crisis of 2008-2009. The nation's economy took close to six years to reach pre-crisis GDP level. The Bahamas' GDP evolution is mainly driven by US trends and fluctuations and an increase in the US economy has direct positive impacts the country's economy (and vice versa). The Bahamian dollar is currently pegged with the US Dollar.

The economy of The Bahamas is driven mainly by tourism, which in 2014 supported 51,000 direct jobs (i.e. 27% of total employment) and it is estimated that its total job contribution reaches 98,000 if indirect jobs are considered[3], which would represent more than half of the country's workforce. The country has been able to attract and sustain significant tourism developments such as the Atlantis Resort and Aquatic Park on Paradise Island. In 2014 travel and tourism represented 44% of the GDP composition of the country.

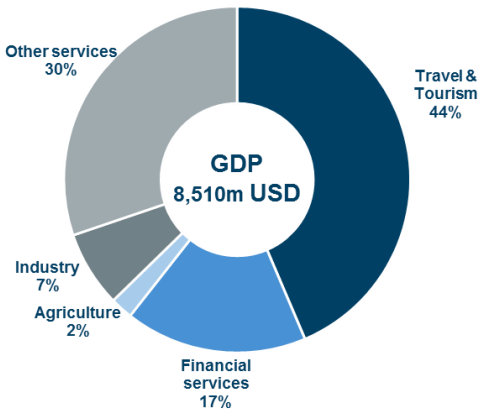


Figure 4: Bahamas GDP composition 2014

SOURCE: WORLD BANK

[3] World Travel and Tourism Council

2.4 Tax environment

The Bahamas is a nation that promotes a liberal tax environment and does not levy many types of taxes that are present in other countries; it has no withholding taxes or corporate taxes on income, dividends or capital gains, among others.

Value Added Tax (VAT)

The Value Added Tax is a tax chargeable as a percentage rate of the value of a taxable supply and taxable importation within the Bahamas. VAT was implemented on 1st January 2015 with a general rate of 7.5%. In the construction sector, services are subject to VAT. Tax paid to a supplier is referred to as input tax and if it exceeds the output tax it can be claimed as a refund.

Real property tax

This is imposed on all real estate in The Bahamas and it is levied on the asset value. Owners of land and buildings must pay an annual real property tax depending on whether they are owner-occupied or for commercial use. For commercial properties the rate is of 1% for values below 0.5 mBSD and of 2% over the excess amount. For owner-occupied property the rate is of 0.75% below 0.25 mBSD and of 1% over the excess amount.[4]

Social security

Under the National Insurance act of 1972, employers and employees in The Bahamas are required to pay national insurance contributions. Employers must pay 5.9% of the wages and employees 3.9%, capped at 26,000 BSD annually.

Direct taxes

Companies are not subjected to direct taxes.

[4] Bahamas highlights 2015 - Deloitte

3 TRANSACTIONS' STRUCTURE REVIEW

Governments have different motivations for implementing PPP models in projects with important investment requirements. Getting the private sector involved can improve the quality of the infrastructure, management and operations. The PPP model also releases budgetary pressure on governments as the private agent assumes partially or totally the project's funding needs. In this way, investment in infrastructure is not tied to budget and fiscal availability but instead responds to the country's strategic needs. By not assuming the financial burden of this type of capital intensive project, governments can use tax revenues to pursue other goals. The PPP model also helps the public sector to overcome its limitations to implement and manage large infrastructure endeavours. Involving the private sector can result in a better outcome for the nation considering the impact these initiatives have on a wide array of social aspects. Furthermore, the Government shares the risk associated to the project with the Concessionaire as a result of assessing the potential risks and allocating them to the party that can best assume them.

It is envisaged that the Government of the Bahamas, through the Grantor, would enter a long-term Concession Agreement with the project company to be formed by the winning bidder (referred to as the Concessionaire). The concession model proposed for the four selected airports is described throughout the following chapters.

3.1 Legal and regulatory framework

There is currently no PPP legislation or concession law in the Bahamas, and although the Government has established procurement mechanisms, they do not apply to the specific scope of this kind of project. The Bahamas Government should use international best practices to implement the transaction.

The Bahamian legislation framework pertaining to Civil Aviation, operation and use of airports is essentially based on: "Airport Authority Act, 2000", "Airport Authority amendment bill, 2015", "Civil Aviation bill, 2015", "Landing, parking, tie-down and air navigation (fees and charges) (Government aerodromes) regulations (ch.284)" and "Passenger tax Act, 1950 amended in 2014", and is summarised below.

Airport Authority Act, 2000

This act established the Airport Authority, to which *Lynden Pindling International Airport – New Providence* was transferred. It defined the functions the entity would be responsible for including managing, operating and maintaining the airport as a commercially viable entity, and providing airport security, firefighting services and aircraft ground handling services. In addition, it gave considerable freedom to the Authority to manage the assets of the airport. In 2007, it subscribed an agreement with the Nassau Airport Development Company Limited to build, operate and maintain the Lynden Pindling International Airport.

Abstract [5]*:*

> *"An act to provide for the establishment of a body corporate to be known as the Airport Authority, for the functions and powers of the authority and for matters incidental thereto."*
>
> *"The functions of the authority shall be-*
>
> a) *to manage, maintain and operate the airport*
>
> b) *to operate or cause the airport to be operated as a commercially viable entity*
>
> c) *to provide airport security*
>
> d) *to provide aircraft ground handling services to develop and implement a master airport development plan*
>
> e) *to provide fire services for the airport" – Section 6*

[5] http://laws.bahamas.gov.bs/cms/images/LEGISLATION/PRINCIPAL/2000/2000-0006/AirportAuthorityAct_1.pdf

"The Authority may delegate to any of its members or employees the power and authority to perform on its behalf such functions and to exercise such powers as the Authority may determine" – Section 8 (1)"

Airport Authority Amendment Bill, 2015

The purpose of the amendment was to transfer certain Family Island airports to the Airport Authority to be managed through the newly created Family Island Airports Department. The bill further developed the functions the entity would be accountable for including the *"setting of fees and charges for airports in accordance with ICAO recommendations*". The transferred airports included, amongst others, Exuma, North Eleuthera and Treasure Cay. Marsh Harbour had been previously transferred.

Abstract [6]*:*

"…amend the Airport Authority Act to provide for the transfer to the Airport Authority of specified family island airports; The establishment within the authority of the Family Island Airports Department with responsibility for the operation and management of the transferred family island airports…"

"The functions of the authority shall be-

a) *classification of airports*
b) *management, maintenance and operation of airports in conformance with all applicable national regulations*
c) *provision of airport security and facilitation*
d) *provision of Rescue and Fire Fighting Services*
e) *development and operation of the airports as commercially viable entities*
f) *provision of aircraft ground handling services on a commercial basis*
g) *development of master plans and land use plan In relation to each airport*
h) *setting of fees and charges for airports in accordance with ICAO recommendations*
i) *collection of aeronautical and non-aeronautical fees and charges*
j) *planning, financing and implementation of capital projects to ensure the infrastructure… meets the operational and service needs…*
k) *performance of such functions in relation to aerodromes as the Minister may direct "– Section 6"*

Civil Aviation Bill, 2015

The bill established the Civil Aviation Authority, with the main aim of controlling and regulating safety and security matters in civil aviation. Additionally it performs regulatory and oversight functions together with supervision of the functioning and development of civil aviation in The Bahamas.

Abstract [7]*:*

"… establish a public authority concerned with civil aviation and to make provisions as to the functions of the Authority; To make further provisions for regulating civil aviation; To consolidate the law relating to civil aviation safety and security…"

"The functions of the authority are to-

a) *Control and regulate civil aviation in The Bahamas*
b) *Oversee and ensure the implementation of…the State Safety Programme and any other national strategy…*

[6] http://www.bcaa.gov.bs/public/downloads/bills/airportauthority.pdf
[7] http://www.bcaa.gov.bs/public/downloads/bills/airportauthority.pdf

c) *Oversee the functioning and development of air transport and civil aviation…*

d) *Develop and recommend to be made by the Minister, any regulations that are required to be issued under this Act*

e) *Perform regulatory and oversight functions relating to civil aviation…*

f) *Secure the provision of an adequate system of air navigation and air traffic services in the airspace of The Bahamas…*

g) *Monitor and ensure compliance with this Act and the Convention*

h) *Cooperate with other civil aviation authorities…*

i) *Perform such other functions as are for the time being conferred upon the Authority by virtue of this Act or any other written law"*

Landing, parking, tie-down and air navigation (fees and charges) (Government aerodromes) regulations (ch.284)

These are economic regulations that currently govern the Family Islands airports. These regulations establish fees and charges that can only be amended in the form of regulations by the Ministry of Transport (MOTA). This could present challenges for the Concessionaire, which may seek more certainty regarding the process that will be used for adjusting fees and charges over the span of the concession agreement.

Abstract [8]*:*

"These Regulations apply to any Government aerodrome, other than a Government aerodrome in respect of which landing, parking, tie-down and air navigation fees and charges, as the case may be, are prescribed under any other written law"

"it shall be lawful for the Director of Civil Aviation to charge, demand and receive fees and charges for the operation of aircraft at a Government aerodrome to which these Regulations apply"

"No fee shall be charged in respect of

a) *aircraft engaged in search or rescue operations or in the provision of emergency medical services*

b) *aircraft owned or chartered by any department of the Government of The Bahamas*

c) *aircraft belonging to the Armed Forces or Governments of any country of the Commonwealth or of the United States of America"*

Considering that there is no particular PPP legislation in the Bahamas to govern the development, procurement and implementation of PPPs, a legal framework to address these issues would need to be defined by the Government. It has to outline the potential scope of the transaction plus a regulatory mechanism to establish fees and charges at the airports and proper mechanisms for their adjustment.

Passenger Tax Act, 1950 amended in 2014

The act mentions the different taxes passengers should pay upon arriving or leaving The Bahamas and states that it should be included in the cost of the ticket. It established a tax of BSD 29 for each passenger leaving The Bahamas other than by sea.

Abstract [9]*:*

"an act to levy certain taxes in respect of passengers and passenger tickets"

"…there shall be charged, levied, collected and paid into the Consolidated Fund toward the general revenue of the Bahamas in respect of passengers arriving in and departing from The Bahamas…"

[8]http://laws.bahamas.gov.bs/cms/images/LEGISLATION/SUBORDINATE/2005/2005-0049/LandingParkingTie-downandAirNavigationFeesandChargesGovernmentAerodromesRegulations_1.pdf
[9]https://www.bahamas.gov.bs/wps/wcm/connect/6fce26dd-7d46-4478-8c55-ee7a45e54e2f/Passenger+Tax+Act+(Amendment+to+First+Schedule)+Order,+2014.pdf?MOD=AJPERES

"FIRST SCHEDULE

1. *Every passenger leaving The Bahamas other than by sea… $29 (Amendment 2014)*
2. *…every passenger of or above the age of six years leaving The Bahamas by sea… $15*
3. *Other than a passenger leaving The Bahamas on the one day excursion cruises in which case the tax shall be… $13*
4. *Every passenger who is not resident passenger of or above the age of six years arriving in The Bahamas by pleasure vessel… $15. Every passenger for whom this item applies shall… be exempt from the payment of a tax when leaving The Bahamas"*

3.2 Role of the Concessionaire

The Concession Agreement could consider the following rights and responsibilities for the Concessionaire.

The Concessionaire would have the responsibility to Build, Operate, Maintain and Transfer the selected airports package and finance those activities. The Concessionaire would assume full operation of the existing airports, with the exception of

- Rescue and Fire Fighting (RFF) and Security functions, which would be further detailed in the concession agreement.
- Air Traffic Control (ATC) would also not be included in the scope of the concession.

The Concessionaire would be responsible for covering all operating and maintenance costs at the airports. Therefore, the Concessionaire would be granted the right of use of the existing and new facilities so as to operate, maintain, and expand them in accordance with ICAO and IATA Standards and Recommended Practices (SARPs), as well as performance indicators that would be part of the Concession Agreement.

It would also be entitled to the landside and airside revenue generated at the selected airports, excluding tax related revenue. The Concession Agreement would explicitly specify the revenues to which the Concessionaire would be entitled.

3.3 Role of the Grantor

The Government of Bahamas through the Grantor would provide the technical specifications and specify the Minimum Technical Requirements (MTRs) that would have to be bet for all construction works at the selected airports.

The entire airport site and all its immovable properties as well as geological assets and minerals under the selected airport sites remain under the Grantor ownership throughout the duration of the concession agreement. As the owner of the site, it would grant a lease to the new Concessionaire at no cost. This lease would terminate upon termination of the Concession Agreement.

Revenues, capital expenditures and operating expenses associated with RFF and Security activities would be retained by the Grantor.

Finally, the Grantor would partially finance the project funding needs through a contractual subsidy of 33 mUSD to fund initial capital expenditures once construction is completed following contractual milestones for disbursement.

3.4 Contractual layout

The Concession Agreement should elaborate on mechanisms to fulfil required works and maintenance program to be undertaken by the Concessionaire such as those proposed below.

Capital expenditures (Capex)

The Concessionaire should submit to the Grantor and to an Independent Engineer for approval all material drawings and other material construction documents prepared on its behalf relating to the design or development of the design of each part of the Works. Once the construction documents were approved the Concessionaire should carry out and complete the construction, installation and commissioning of the Works in a good and workmanlike manner in accordance with the Works Programme. Upon completion, the Grantor and an independent Engineer would have to carry out necessary inspections to determine its conformity

Concessionaire and Grantor may establish additional works to be executed, triggered by an increase of demand or a change in operational ratios. Funding such works could be negotiated between both parties.

Maintenance of concession assets

The Concessionaire should ensure at all times that the Concession Assets are kept in good repair and condition during the Concession Period and otherwise comply with the Maintenance Programme. The Concession agreement would contain the guidelines for maintenance tasks during the entire period.

The Concessionaire should deliver to the Grantor and to an Independent Engineer, during an established period after execution starts, an initial Maintenance Programme prepared in accordance with the requirements set out in the Concession agreement. The programme would have to be agreed upon by both parties.

Finally, the Grantor would have the right to perform periodic audits to ensure proper conditions of operation at the airports, including compliance with ICAO's SARPs. Costs of such audits (including independent engineer) could be assumed by the Concessionaire and penalties would apply in case non-conformities were found.

3.5 Preliminary key transaction terms

The following table provides preliminary key terms of the transaction structure. As detailed below, the transaction structure contemplates a long-term concession contract.

Grantor	The Government of Bahamas through the Airport Authority; Currently the Family Islands airports are managed by CAD (MOTA) and under the Airport Authority Amendment Bill of 2015 they are to be transferred to the Airport Authority
Type of agreement	Concession Agreement
Duration	Concession duration period would be 25 years
The Project	Concession Agreement to Build, Operate, Maintain and Transfer a group of four Family Islands airports: Marsh Harbour, Exuma, North Eleuthera and Treasure Cay
Scope of the concession agreement	• Operate and maintain the existing facilities and finance, build, operate and maintain the new facilities at the selected airports package • RFF and Security functions may be included in or excluded from the scope of the concession: Both scenarios, including or not including such functions, were evaluated but the base case scenario assumes that such functions are excluded from the scope • ATC would not be included in the scope of the concession
Investment requirements	Total required investment is estimated at 90 mUSD (real, base year 2016) throughout the concession period excluding RFF and Security services; Should RFF and Security related investments be included, 100mUSD would be required.

Co-financing	Grantor would participate by co-financing the project through a subsidy of 33 mUSD to fund initial investments
Concession variable	The concession could be granted to the bidder who offers the largest share of gross revenues to the Government, as an annual concession fee
Performance obligations	The Concession Agreement would specify certain construction, operating and maintenance performance obligations of the Concessionaire to be met by specific dates, with penalties for failure to meet such obligations
Ownership	Entire airport sites and all immovable properties and geological artefacts and minerals under the Airport site would remain under Grantor ownership, throughout the duration of the concession
Undertakings of the Concessionaire	• Full operation of the airports • Provision of the capital investments to comply with ICAO and IATA standards • Financing and completion of the expansion projects • Responsibility for the services provided excluding RFF, Security and ATC • Optimization of commercial activities
Undertakings of the Grantor	• Provision of oversight and contracting of administration for the concession agreement • Provision of reasonable assistance and cooperation during the term of the concession agreement, including coordination with other Government agencies and Ministries • Co-financing of initial investments
Revenues	• Aeronautical Revenues: The Concessionaire would have the right to collect and retain all Aeronautical Revenues including Regulated Aeronautical Charges (Landing fees, Parking fees and Passenger Facility Charge) • Non-Aeronautical Revenues: The Concessionaire would take over existing rental and commercial contracts and would have the right to capture all associated revenues. The Concessionaire would be granted the right to enter into new commercial contracts within the scope of the concession
Taxes	The Concessionaire would be subject to the prevailing income and corporate tax laws in The Bahamas
Governing law and arbitration	*To be defined*
Employees	Transfer of employees/salaries/benefits to the Concessionaire (those employees who wish to be transferred) excluding pre-existing labour liabilities. The Private Agent would need to offer jobs keeping its current conditions to all employees of the four airports

Table 1: Preliminary key transaction terms

3.6 Risk allocation

Under the PPP model the project risks are shared and/or transferred between private and public sector to those who have best capability to absorb them. Risks have been classified in six categories according to their nature:

- Design and construction – Engineering and operation,
- Design and construction – Legal and regulatory,
- Design and construction – Financial,
- Operation and maintenance – Site,
- Operation and maintenance – Legal and regulatory,
- Operation and maintenance – Other risks.

The following tables identify the main risks associated to the project, through all its phases, and establish a preliminary allocation between the private and the public party.

Design and construction – Engineering and operation

Associated risk	Private	Public	Risk mitigation mechanisms
Design		✓	• Grantor can allow Concessionaire to make changes in design if needed
Construction	✓		• EPC contract with a constructor with fixed price and time limit • Grantor could consider Concessionaire experience in similar projects for qualification purposes
Land expropriation and/or acquisition		✓	• Previous formulation of a plan • Start acquiring land during structuring phase in order to have the required land by the time the concession is granted
Geological risk (1)	✓	✓	• Identify and quantify most relevant risks • Evaluate share risk mechanisms
Interference with utilities networks (2)	✓	✓	• Provide reliable information so that the Concessionaire can assess the risk. If information is not available the Grantor should assume the risk.
Environmental and social	✓	✓	• Concessionaire should have its processes and construction methods aligned with requirements • The Grantor should implement initial cleaning and waste management actions in the four airports before the concession starts, and their costs will be assumed by the Government
Current infrastructure transferred (3)	✓		• Detailed information regarding the status of the transferred infrastructure
Additional investment required		✓	• Detailed clauses in the contract
Onsite accidents and third party damages	✓		• Insurance and detailed construction plan
Social rejection to the involvement of a private party in the airport operation		✓	• Implement a communication and marketing plan targeted to the population involved in the project

Disbursement of Government grant	✓	✓	• Establish contractual mechanisms to address delays and adjustments on the proposed disbursement

1) Depends on the complexity of the intervention

2) Depends on the quality of information the bidders has beforehand

3) Bidder must be able to visit the site and ask for enough information to mitigate risk

Design and construction – Legal and regulatory

Associated risk	Private	Public	Risk mitigation mechanisms
Obtainment of licenses and permits (4)	✓		• Detailed plan of activities to obtain them
Early contract termination - Causes attributable to the Concessionaire	✓		• Detailed specification clauses with regards of term, payments and status of the assets
Early contract termination - Causes attributable to the Grantor		✓	• Detailed specification clauses with regards of term, payments and status of the assets
Uninsurable Force Majeure		✓	• Detailed specification clauses (*i.e.* uninsurable weather risk should be taken into account in design specifications)
Insurable Force Majeure	✓		• Insurance
Regulatory (5)	✓	✓	• Clauses in the contract veil for economic performance when changes in regulation have a high impact on the project

4) Grantor can assist Concessionaire if it shows diligence on the procedure

5) Usually contracts contain a mechanism to cope with material changes in the economic outcome of a concession

Design and construction – Financial

Associated risk	Private	Public	Risk mitigation mechanisms
Financial close	✓		• Bidders must accredit financial capacities • Project must be structured adequately, together with financial institutions and sponsors
Interest rate and Inflation	✓	✓	• Usually partially mitigated by contracting under fixed prices or rates

Operation and maintenance – Site

Associated risk	Private	Public	Risk mitigation mechanisms
Revenues (6)	✓		• Minimum guaranteed income or bands to be considered
Overruns O&M	✓		• Rarely mitigated on contractual basis
Inflation (7)	✓	✓	• Establish fees and charges adjustments based on inflation changes

6) Except when the demand risk is considerably high

7) Mainly assumed by the Grantor during the operation phase. Fees and payments are indexed to inflation

Operation and maintenance – Legal and regulatory

Associated risk	Private	Public	Risk mitigation mechanisms
Uninsurable Force Majeure		✓	• Detailed specification clauses
Insurable Force Majeure	✓		• Insurance
Regulatory	✓	✓	• Clauses in the contract veil for economic performance when changes in regulation have a high impact on the project

Operation and maintenance – Other risks

Associated risk	Private	Public	Risk mitigation mechanisms
Country risk	✓		• Set up target returns for possible investors that can offset country risk
Low service level at airports	✓		• Establish a contractual required Level of Service (LoS) for each airport

Table 2: Risk allocation

4 MARKET ASESSMENT AND TRAFFIC FORECAST

4.1 Air transport in The Bahamas and the Caribbean

As one of the most popular tourist destinations in the Caribbean, the Bahamas ranked fifth in terms of seat capacity in the region in 2015 last year, with a total supply of 5.5 million departing seats. Dominica, Puerto Rico, Cuba and Jamaica have larger capacities than the Bahamas, having attracted larger international traffic inflows.

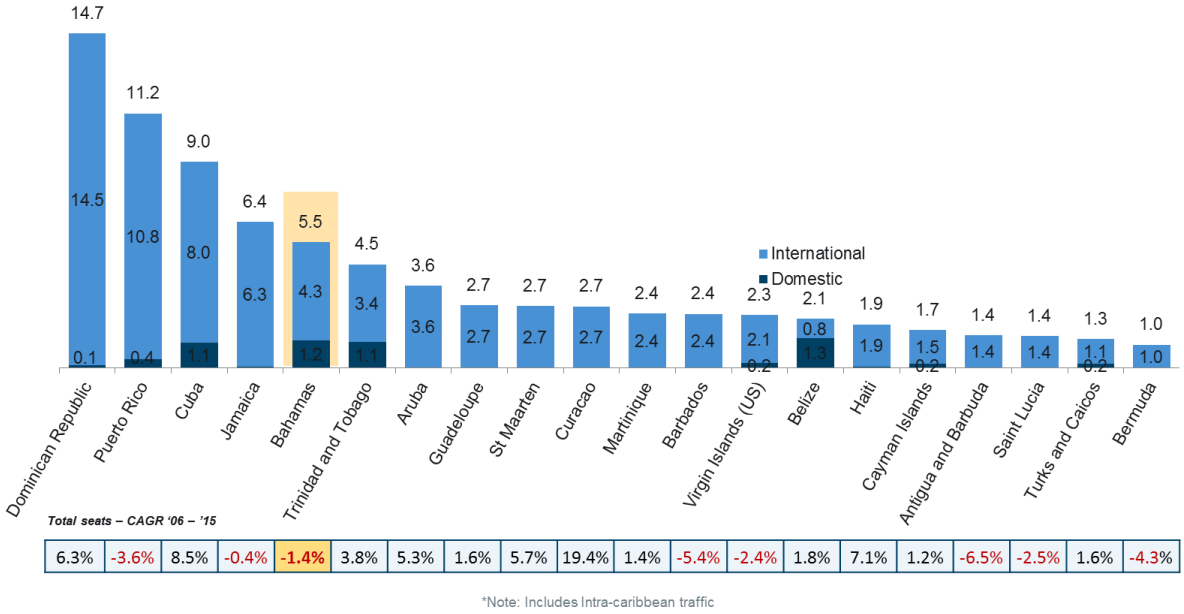


Figure 5: Top 20 Caribbean countries departing seats supply in 2015 (million seats)

SOURCE: OAG

North America is the most important market for both the Caribbean region in general and the Bahamas in particular. By analysing seat supply by region in Bahamas it can be observed that the North America seat capacity, which represents 71% of the air transport market in the Bahamas, has decreased at an annual rate of 2.4% between 2006 and 2015. Domestic market, which accounts for 22% of the air transport capacity in the Bahamas, has registered a 1.9% annual growth rate in the last decade. The European, Intra-Caribbean and Latin American markets are relatively small in comparison, having a minor influence on the total seat supply of Bahamas: intra-Caribbean accounted for 4% of the overall seat capacity, while European accounted for 2% and Latin America accounted for only 1%.

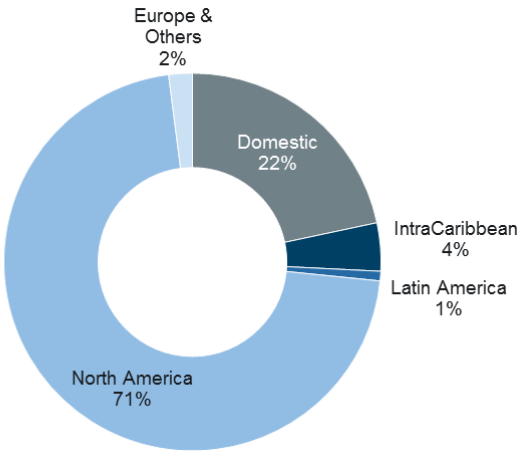


Figure 6: Bahamas scheduled departing seat-supply market share – 2015

SOURCE: OAG

Most of the domestic traffic of the Bahamas has been served by two major domestic airlines in the past years, namely Bahamas Air and Sky Bahamas. Bahamas Air, the country's flag-carrier that is fully owned by the Bahamian Government, provides 44% of the commercial scheduled seat supply. Sky Bahamas, the second largest player in the market, accounted for 27% of the capacity. Southern Air and PineApple Air accounted for the rest of the domestic market, with 18% and 11% shares, respectively.

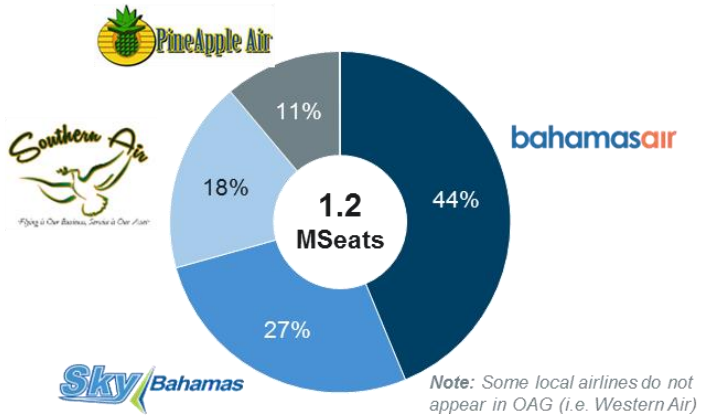


Figure 7: Bahamas domestic departing seat-supply by airline - 2015

SOURCE: OAG

While the competition on domestic aviation market is between a few domestic airlines in the Bahamas, international seat supply is certainly more competitive and fractioned. Foreign carriers occupy a dominating position in the Caribbean in general and in the Bahamas in particular accounting for 75% of the market share in terms of seat capacity.

U.S. carriers have a big say in the international market. Legacy carrier American Airlines has claimed a leading market share of 24% with JetBlue (a major low cost carrier in the U.S.) registering a 14% of the international seat capacity. Delta Air Lines also accounted for 14% of the capacity, while other U.S. carriers such as United Airlines, Sliver Airways and Southeast, claimed a combined 13% of the international seat capacity.

Bahamas Air claimed 18% of the market, making itself the only domestic competitor to the U.S. carriers. Other Western airlines such as British Airways and Air Canada, also accounted for a small part of the supply.

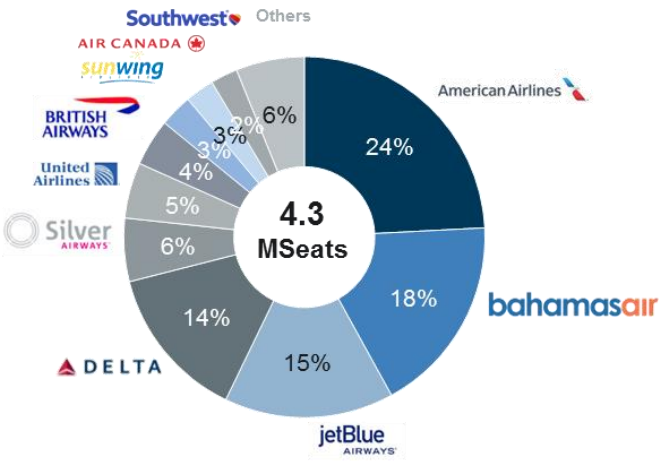


Figure 8: Bahamas international departing seat supply by airline - 2015

SOURCE: OAG

4.2 Tourism sector overview

In 2015, the Caribbean received a total of 22 million tourists, accounting for 2% of worldwide tourist arrivals. Nevertheless, the Caribbean was the lowest growing region between 2005 and 2015 with a 2.2% annual growth rate, compared with the world's average growth of 3.5% in the same period.

The air traffic of the Bahamas is driven by tourism, as the nation's geography, climate, natural beauty and proximity to the United States have made it a prime tourist spot. The Bahamas' international tourist market is ranked fifth in the Caribbean, representing 7% of the Caribbean tourism.

Nevertheless, between 2006 and 2015 tourism has decreased at a CAGR of 0.6%. This reduction is primarily attributed to the slowdown of visitors from North America as a consequence of the impact of the financial crisis. However, between the years of 2009 and 2015, the CAGR grew at a steady pace of 2%.

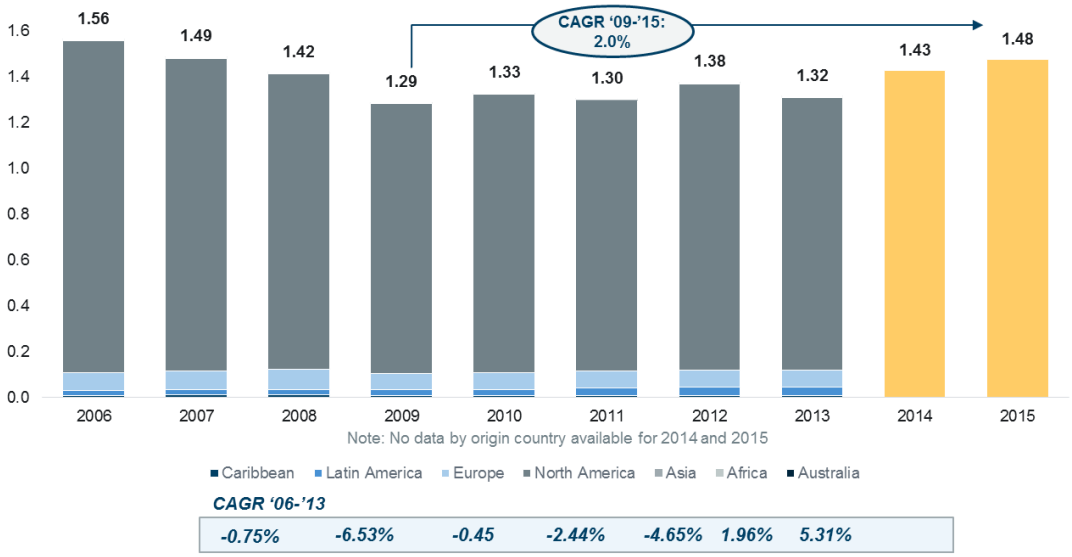


Figure 9: Evolution of international tourists in The Bahamas (million tourists)

SOURCE: TOURISM TODAY

Looking into further detail the last 5 years, it can be observed that the Bahamas attracted 1,475,000 stopover visitors in 2015, from which c.90% are travelling to the country by air.

- Visitors from North America account for 90% of the tourists visiting Bahamas and their share on total visitors has remained almost stable between 2010 and 2013 although its CAGR has declined by 0.7% during this period.
- Visitors from Europe, the second largest source market with c. 6% of the total visitors, presented a more positive evolution, with an increase of 1.4% CAGR in the 2010-2013 period.
- Visitors from Latin America showed the most positive trend with a growth of 11.7% CAGR during the same period, despite only accounting for c. 3% of the total visitors.

On a positive note, after a 4.4% decrease in 2013, total visitors to the Bahamas have been on an upward trend, growing 8.4% and 3.4% in 2014 and 2015, respectively. The table below illustrates the Bahamas' tourist evolution by region of origin.

	2010	2011	2012	2013	2014	2015	CAGR 2010-2013	CAGR 2010-2015
North America	1,216,505	1,182,848	1,252,661	1,189,784	n.a	n.a	-0.7%	n.a
Europe	71,829	72,769	73,138	74,971	n.a	n.a	1.4%	n.a
Latin America	25,944	34,537	36,924	36,189	n.a	n.a	11.7%	n.a
Caribbean	8,803	7,889	7,604	8,674	n.a	n.a	-0.5%	n.a

Australia	3,075	3,267	3,609	3,858	n.a	n.a	7.9%	n.a
Asia	1,258	1,458	1,902	1,623	n.a	n.a	8.9%	n.a
Africa	1,127	1,169	1,562	1,501	n.a	n.a	10.0%	n.a
Total Stopover visitors	**1,328,541**	**1,303,937**	**1,377,400**	**1,316,600**	**1,427,043**	**1,475,159**	**-0.3%**	**2.1%**

Table 3: Bahamas annual stopover visitor data

SOURCE: MINISTRY OF TOURISM

Regarding the country of origin of visitors, it is noted that US nationals accounted for more than 80% of the total tourists visiting the Bahamas in 2013.

Countries	Year 2013	Share %
USA	1,066,064	81%
Canada	123,720	9%
UK	23,989	2%
France	14,001	1%
Germany	8,934	1%
Total of five countries	**1,236,708**	**94%**
Others	79,892	6%
Total	**1,316,600**	**100%**

Figure 10: Top 5 countries origin of stopover visitors -2013

SOURCE: MINISTRY OF TOURISM

There is a strong seasonality in The Bahamas, as there is a reduction of 65% in the number of tourists in the low season (September is the least crowded month) compared to the high season (March is the most crowded month). This behaviour responds to the travelling habits and preferences of the US as the main country of origin for tourists, combined with the weather patterns in the archipelago.

The prospects for tourism in the Bahamas are positive driven by the expected growth of the North American market. According to Euromonitor, the Caribbean tourism market is expected to grow at a CAGR of 3.2% in the next four years. Also according to Euromonitor, North American tourist travellers to the Bahamas will grow at an annual average of 2.9% for the next four years.

4.3 Historical passenger traffic by airport

Marsh Harbour Airport (MHH) is located on Abaco Island and is the largest airport of the Family Islands, handling around 310,000 passengers in 2015. Exuma Airport (GGT), on Exuma Island, is the second largest airport with 190,000 passengers in 2015, followed by North Eleuthera Airport (ELH) on Eleuthera Island, with 120,000 passengers in that same year. Treasure Cay Airport (TCB) is located on Abaco Island and it is the smallest airport of the four, having handled 20,000 passengers in 2015. All four airports combined have processed approximately 635,000 passengers in 2015, representing 60% of the Family Islands' total traffic estimated.

In this chapter, a detailed market assessment of each airport is presented. Market assessment is conducted based on limited available historical data. For the years 2015 and 2016, traffic figures were estimated based on the analysis of limited airport data, airline capacity data from OAG and our own estimation of load factors.

4.3.1 Marsh Harbour

Marsh Harbour has the highest traffic level among all the airports of the Family Islands. After a significant decrease in departing seat capacity in 2008-2009, capacity has grown up at a CAGR of 2% during the last 5 years (2010 to 2015). Both international and domestic flights contributed to the growth, as the scheduled departing international seat capacity increased from 73,800 in 2010 to 83,400 in 2015 and the domestic seat capacity from 80,400 to 87,000 in the same span.

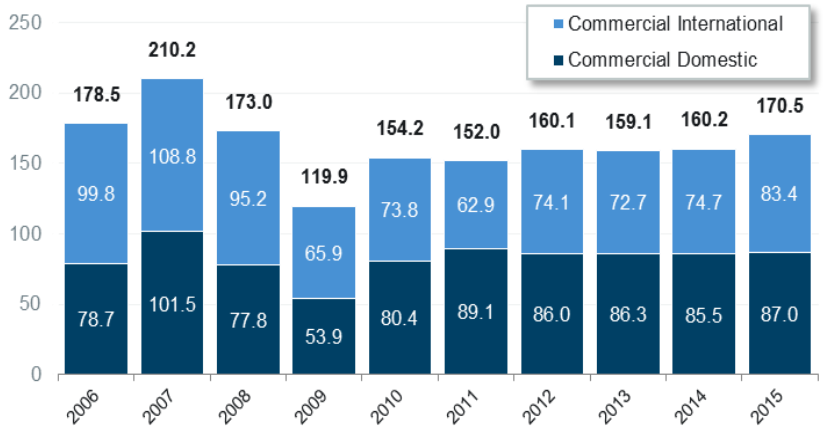


Figure 11: Scheduled departing seat supply evolution in Marsh Harbour (000' seats)

SOURCE: OAG

Between 2010 and 2015, scheduled departing commercial ATMs increased from 4.0 thousand to 4.2 thousand, meaning a 0.8% CAGR.

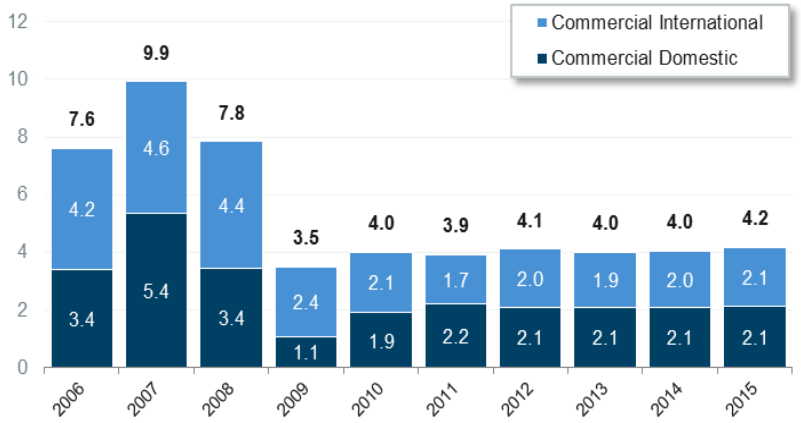


Figure 12: Scheduled departing ATMs evolution in Marsh Harbour (000' ATMs)

SOURCE: OAG

At MHH, Bahamas Air is the main airline with almost 40% of the total scheduled seat supply, with 58% of the domestic seats and 17% of the international seats in 2015. Following Bahamas Air are Sky Bahamas (26%) with 42% of the domestic market, and Silver Airways (25%), which is the main airline in the international market (with 51% of the international capacity share).

Figure 13: Domestic (left) and international (right) departing seat supply by airline in Marsh Harbour – 2015
SOURCE: OAG

There are currently 7 international regular destinations served from Marsh Harbour airport and all of them are located in North America. At the moment, almost 40 international non-stop services per week are operated from MHH to destinations in Florida, including Fort Lauderdale (17 per week), West Palm Beach (11 per week) and Miami (6 per week). In addition, there is also a route to Atlanta that was launched in December of 2015 with two weekly services operated by Delta Air Lines, which is expected to increase to three weekly services in 2016.

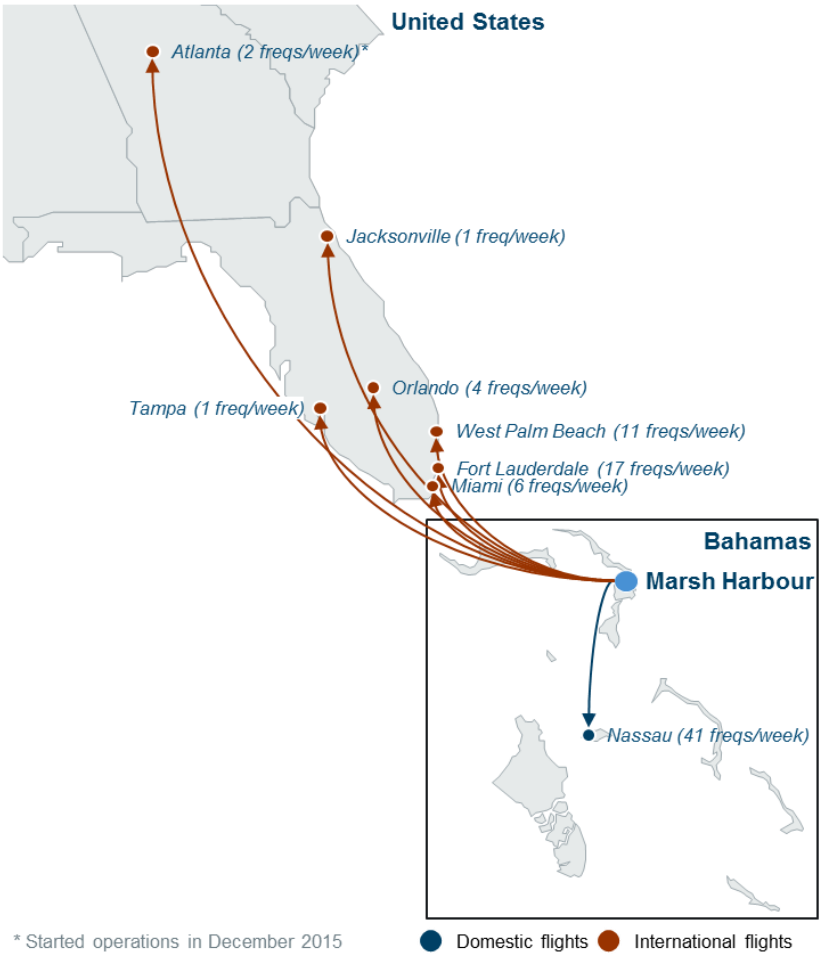


Figure 14: Marsh Harbour route map - 2015

SOURCE: OAG

In terms of the operated aircraft mix, almost 50% of the scheduled commercial flights at the airport are operated by small turboprops with less than 35 seats such as Saab 340. The Bombardier Dash 8 is the second most used type of aircraft at MHH, accounting for 38% of the transported passengers. Among all the operated flights in 2015, only 20% of them were operated by narrow body aircraft with more than 70 seats.

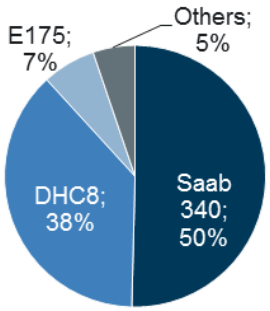


Figure 15: Marsh Harbour departing seat supply aircraft type – 2015

SOURCE: OAG

Based on the traffic data of the year 2015 provided by airport management, domestic, international and General Aviation accounted for 42%, 35% and 24% of the total traffic at Marsh Harbour, respectively. Bahamas Air is the largest domestic carrier in MHH, representing 61% of the domestic passengers transported in 2015. Sky Bahamas only claimed 12% of the domestic market. International carriers took the largest share of the international traffic at Marsh Harbour in 2015. Sliver Airways accounted for 50% of the international market, while American Airlines took 25%. Bahamas Air accounted for 21% of this market segment.

	Year 2015	Source
Total Traffic	**308.1**	**-**
Commercial Domestic	**128.5**	**-**
Bahamas Air	78.7	Airline spreadsheet provided by the airport management
Sky Bahamas	35.3	
Flamingo Air	14.4	
Commercial International	**106.5**	**-**
Silver Airways	52	Airline spreadsheet provided by the airport management
American Airlines	27.4	
Bahamas Air	23	
Others	4.2	
Private	**73.2**	**Airport management information**

Table 4: Marsh Harbour passenger estimates for 2015 (000' pax)

SOURCE: AIRPORT MANAGEMENT, CAD, OAG, ALG

On the other hand, ATMs have been estimated based on OAG data and information obtained from on-site interviews. General Aviation ATMs were estimated to represent 66% of the total airport movements.

	Year 2015	Source
Total ATMs	**37.4**	**-**
Commercial Domestic	6.7	Estimate based on OAG and airport management information
Commercial International	6.2	

Table 5: Marsh Harbour ATMs estimates for 2015 ('000 ATMs)

SOURCE: AIRPORT MANAGEMENT, CAD, OAG, ALG

4.3.2 Exuma

Exuma Airport has the second highest traffic level among the airports of the Family Islands. Apart from a traffic decrease in 2007, seat supply level at Exuma airport has remained almost flat since 2010 with only a slight increase in the international offering between 2014 and 2015. Scheduled departing seat supply increased from 106.7 thousand to 128.4 thousand meaning a 2.1% CAGR between 2006 and 2015.

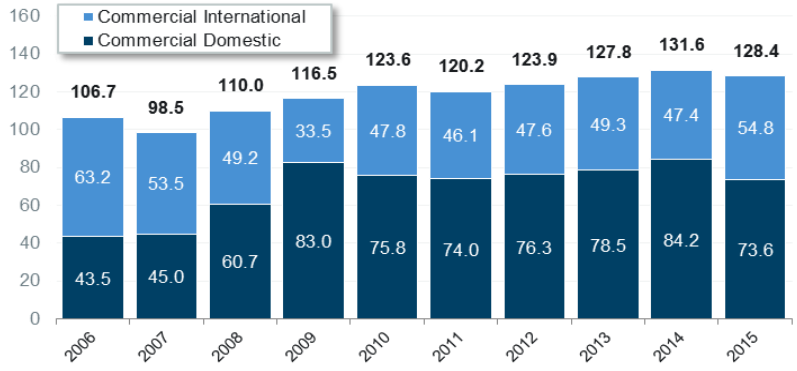


Figure 16: Scheduled departing seat supply evolution in Exuma (000' seats)

SOURCE: OAG

During the period between 2006 and 2015 scheduled departing commercial ATMs increased from 2.3 thousand to 2.6 thousand meaning a 1.8% CAGR.

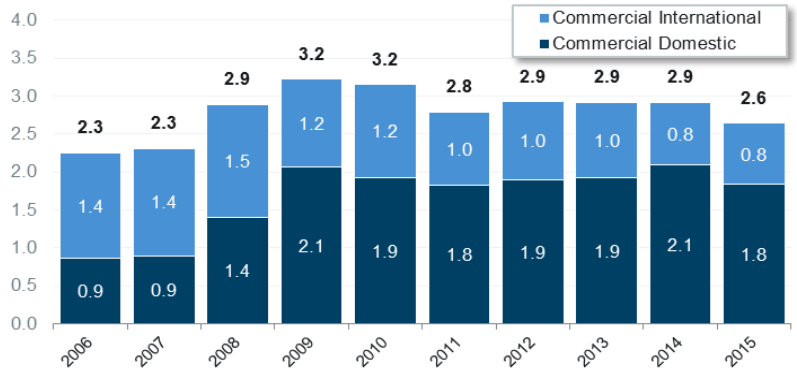


Figure 17: Scheduled departing ATMs evolution in Exuma (000' ATMs)

SOURCE: OAG

Domestic seat supply is distributed almost evenly between Bahamas Air and Sky Bahamas. In the international market, however, American Airlines holds the leading position accounting for more than half (54%) of the seat capacity, while no local carrier operates scheduled international flights from Exuma. Delta Air Lines accounts for 25% of the international seat capacity, with the rest of the domestic capacity taken by Air Canada and Sliver Airways with a 12% and 8% shares, respectively.

Figure 18: Domestic (left) and international (right) departing seat supply by airline in Exuma Airport – 2015
SOURCE: OAG

There are currently 4 international regular destinations served from Exuma, all of them located in North America. In particular, there are more than 10 frequencies per week to Florida operated by American Airlines and Silver Airways, making the south-eastern state the best served destination from Exuma Airport. Of these weekly frequencies, 8 out of them are to Miami operated by American Airlines. In addition, there are also 3 frequencies per week to Atlanta operated by Delta Air Lines, and 1 flight per week to Toronto, operated by Air Canada.

Figure 19: Exuma Airport route map - 2015

SOURCE: OAG

Almost 60% of the scheduled commercial flights in the airport are operated by small turboprops with less than 35 seats, including Saab 340. DHC 8 is on the second place in the mix, accounting for 29 % of the flights. Only 4% of the flights are operated by medium-large aircraft with more than 70 seats.

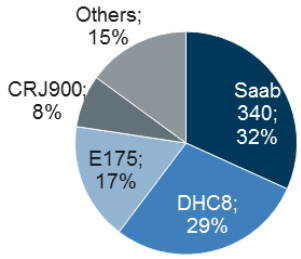


Figure 20: Exuma airport departing seat supply aircraft type – 2015

SOURCE: OAG

International traffic for 2015 at Exuma airport has been obtained based on the information received from the airport management although there is no detailed split between airlines. Domestic traffic, however, has been estimated based on OAG data and information collected from on-site interviews.

	Year 2015	Source
Total Traffic	**187.1**	**-**
Commercial Domestic	**90.6**	Estimate based on OAG and airport management information
Bahamas Air	N/A	
Sky Bahamas	N/A	
Commercial International	**82**	Spreadsheet provided by the airport management, but with no split by airline
American Airlines	N/A	
Delta Airlines	N/A	
Air Canada	N/A	
Silver Airways	N/A	
Private	**14.6**	Estimate based on airport management information

Table 6: Exuma passenger estimates for 2015 ('000 pax)

SOURCE: AIRPORT MANAGEMENT, CAD, OAG, ALG

Similarly to traffic data, ATMs have been estimated based on OAG data and information obtained from on-site interviews as well. As a result, General Aviation accounted for 51% of total airport movements in 2015.

	Year 2015	Source
Total ATMs	**10.1**	**-**
Commercial Domestic	3.2	Estimate based on OAG and airport management information
Commercial International	1.8	
Private	5.2	Estimate based on airport management information

Table 7: Exuma ATMs estimates for 2015 ('000 ATMs)

SOURCE: AIRPORT MANAGEMENT, CAD, OAG, ALG

4.3.3 North Eleuthera

North Eleuthera is the third largest airport among the four shortlisted airports for the Concession. After the major downfall of 2009 as a result of the financial crisis, departing seat supply has gradually grown since 2010 and reached almost 110,000 seats in 2012. However, seat supply has experienced a decrease once again since 2013 and has almost returned to the level of 2011. The decrease in domestic offering is the main reason for the weak traffic performance in North Eleuthera. Between 2006 and 2015, scheduled departing seat supply increased from 85.3 thousand to 90.1 thousand, meaning a 0.6% CAGR.

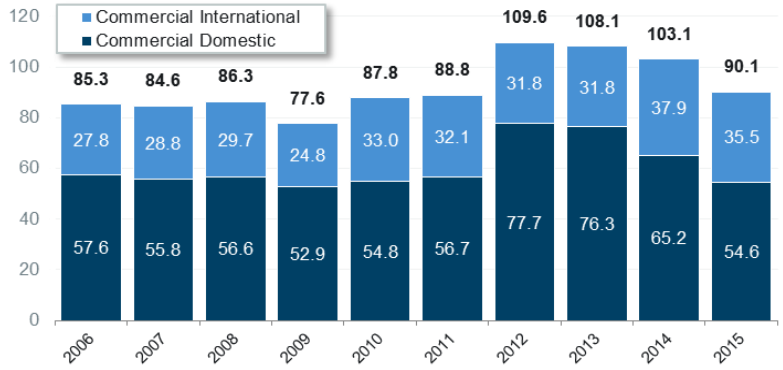


Figure 21: Scheduled departing seat supply evolution in North Eleuthera (000' seats)

SOURCE: OAG

Scheduled departing commercial ATMs increased from 3.1 thousand to 3.4 thousand during the period between 2006 and 2015, meaning a CAGR of 1.0%.

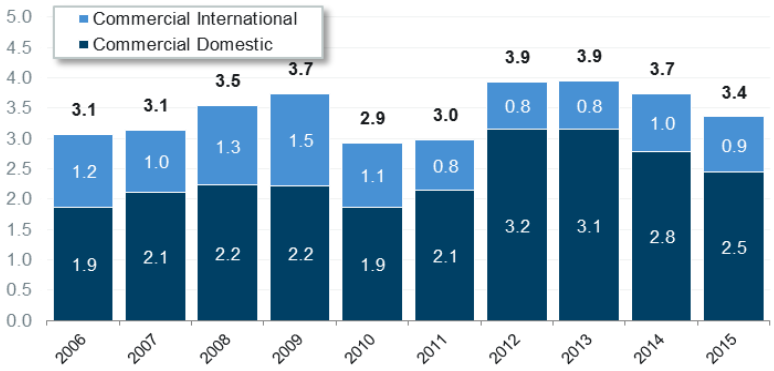


Figure 22: Scheduled departing ATMs evolution in North Eleuthera (000' ATMs)

SOURCE: OAG

Three major airlines compete in the domestic market at North Eleuthera Airport, with Southern and Pineapple Air disputing the leading position. Each of the two carriers claimed almost 40% of the seat capacity. Since 2010, Bahamas Air has experienced a decrease in its domestic market share. In 2015, the flag carrier of the Bahamas only accounted for 24 % of the domestic flights from North Eleuthera Airport. The international market supply is dominated by two airlines from the United States with American Airlines in a leading position (59% of the market). Silver Airway accounted for the remaining 41% of the international seat capacity in the year 2015.

Figure 23: Domestic and international departing seat supply by airline in North Eleuthera – 2015

SOURCE: OAG

There are currently 4 international regular destinations served from North Eleuthera, all of which are located in the United States. Florida is again the best served market in the United States with 18 frequencies per week (11 flights per week to Fort Lauderdale, 6 to Miami and 1 to Orlando). The Atlanta route, operated by Delta Air Lines, was launched in December of 2015 with 2 frequencies per week and it is expected to reach 3 frequencies per week during 2016.

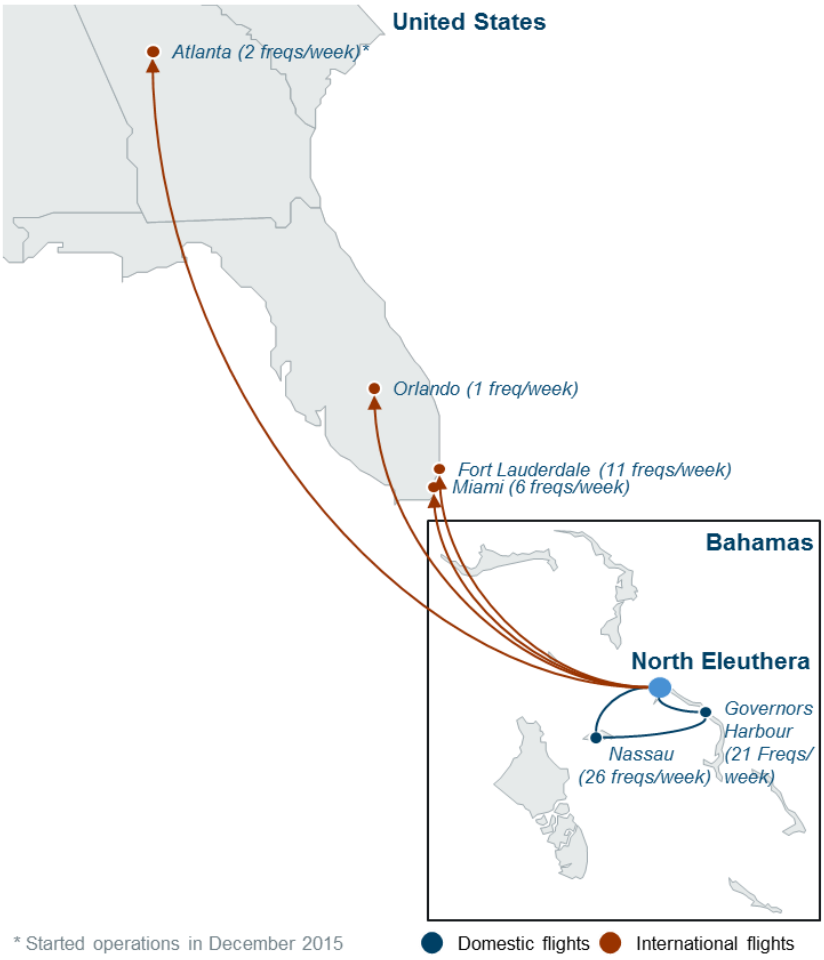


Figure 24: North Eleuthera route map - 2015

SOURCE: OAG

Almost 84% of the scheduled commercial flights in the airport are operated with small turboprops such as Beech 1900 (46% of the ATMs) and Saab 340 (23%) with less than 35 seats. ERJ 145 is also commonly used to fly to the airport and accounted for 16% of the commercial flight operations. However, only 35% of the airport's ATMs are of commercial air transport services (with the remaining 65% corresponding to General Aviation flights). No regular flights at the airport are operated with narrow body aircraft of more than 70 seats.

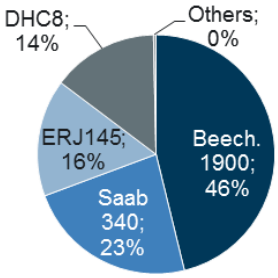


Figure 25: North Eleuthera departing seat supply by aircraft type – 2015

SOURCE: OAG

Traffic for 2015 has been obtained based on the information received from the airport management (split by airlines). Domestic passenger traffic was estimated at 42%, international traffic at 41% and the remaining 17% belonged to General Aviation. For domestic services, Pineapple Air is leading the ranking in terms of passenger traffic, while for international services Silver Airways has the largest market share.

	Year 2015	Source
Total Traffic	**120.0**	**-**
Commercial Domestic	**50.6**	**-**
Pineapple Air	24.6	Airline spreadsheet provided by the airport management and arrivals report
Southern Air	16.2	
Bahamas Air	9.8	
Commercial International	**49.0**	**-**
Silver Airways	27.8	Airline spreadsheet provided by the airport management and arrivals report
American Airlines	20.9	
Delta Airlines	0.3	
Private	**20.4**	**Airport arrivals report information**

Table 8: North Eleuthera passenger estimates for 2015 ('000 pax)

SOURCE: AIRPORT MANAGEMENT, CAD, OAG, ALG

ATMs have been obtained based on the information received from the airport without split among airlines. General Aviation ATMs represented 65% of the total airport operations.

	Year 2015	Source
Total ATMs	**19.2**	**-**
Commercial Domestic	4.9	Airport arrivals report information
Commercial International	1.8	
Private	12.5	

Table 9: North Eleuthera ATMs estimates for 2015 ('000 ATMs)

SOURCE: AIRPORT MANAGEMENT, CAD, OAG, ALG

4.3.4 Treasure Cay

Treasure Cay Airport is the smallest airport of the four selected in terms of passenger traffic. The airport has experienced a significant decrease in commercial seat supply since 2008, especially in the domestic market. The scheduled departing domestic seat capacity has decreased from 33,600 seats in 2007 to 1,600 seats in 2015, whilst the international capacity has slumped from 58,300 to 15,600 seats in that same time span. As a result, the total scheduled departing seat capacity went down from 91,900 seats in 2007 to 17,200 in 2015, an 80 % decrease.

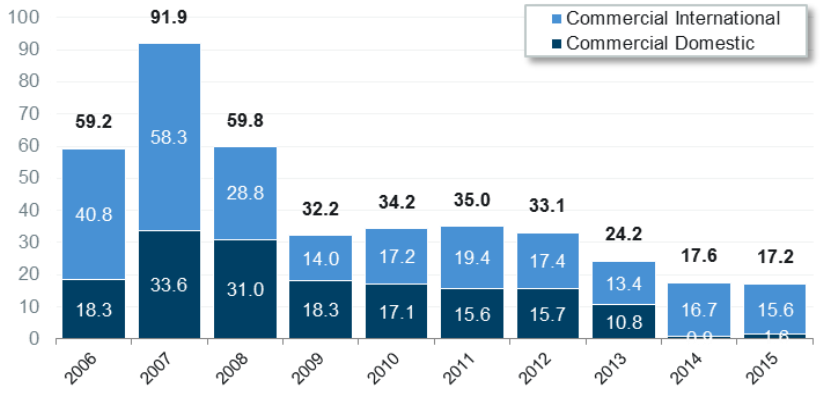


Figure 26: Scheduled Departing seat supply evolution in Treasure Cay (000' seats)

SOURCE: OAG

Scheduled departing commercial ATMs decreased from 1.3 thousand to 0.6 thousand, meaning a -12.5% CAGR between 2009 and 2015. The total supply of seats in 2015 was of 15 and 34 thousand per domestic and international commercial ATMs respectively.

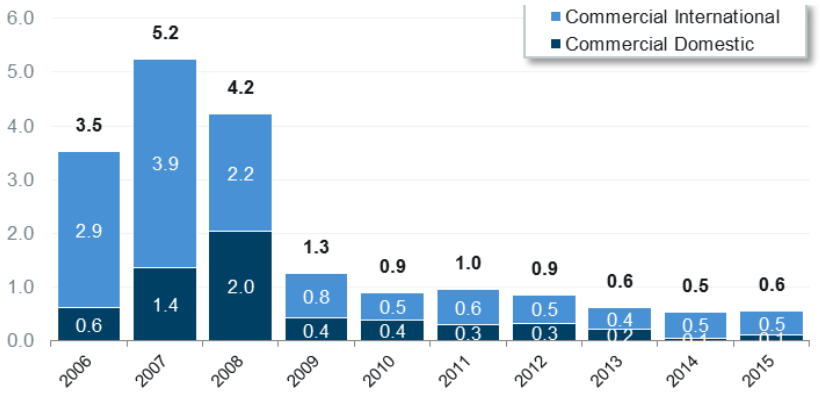


Figure 27: Scheduled departing ATMs evolution in Treasure Cay (000' ATMs)

SOURCE: OAG

Bahamas Air is the only airline operating domestic scheduled flights at Treasure Cay, with two frequencies per week to Nassau operated with a Beechcraft C99 aircraft. In total, there are 1,600 seats available per year to this destination.

Figure 28: Domestic and international departing seat supply by airline in Treasure Cay – 2015

SOURCE: OAG

In the international market, Silver Airways is the only airline operating scheduled flights, with 9 frequencies per week to Fort Lauderdale in the United States, operated with a Saab 340.

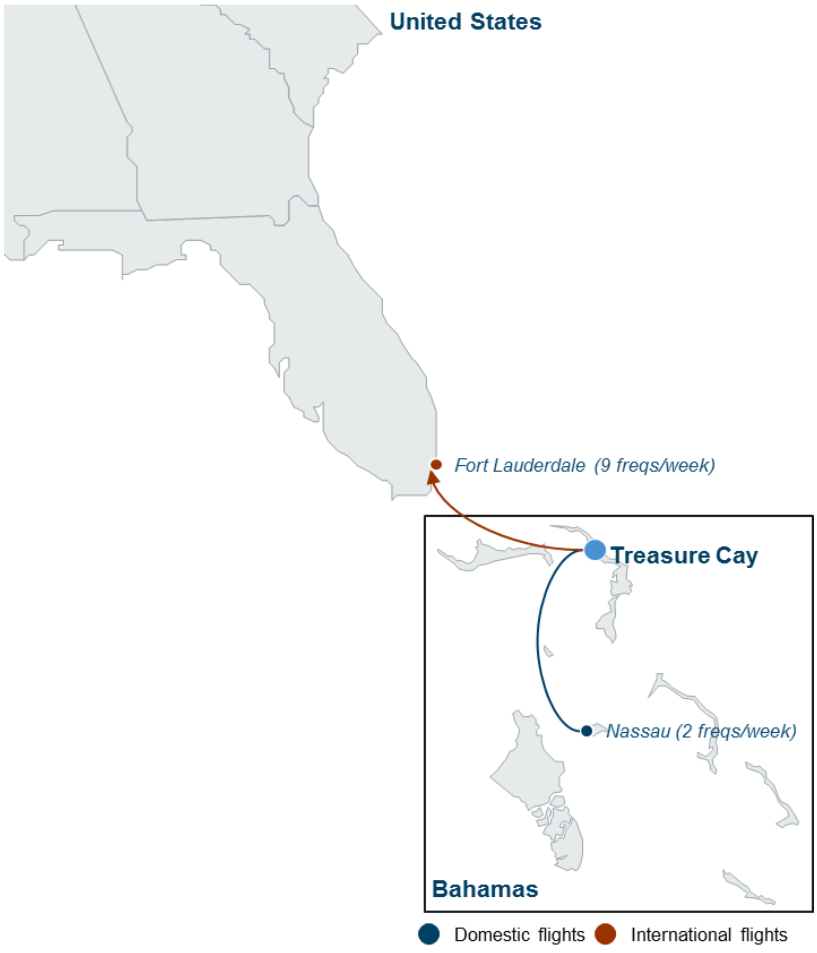


Figure 29: Treasure Cay route map - 2015

SOURCE: OAG

All scheduled commercial flights in the airport are operated with small turboprops with less than 35 seats, such as the Saab 340 and Beech C99aircraft.

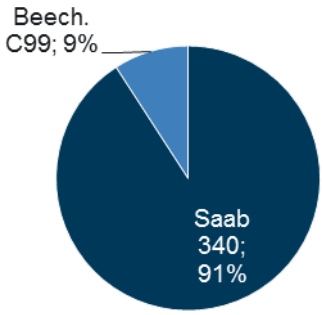


Figure 30: Treasure Cay departing seat supply aircraft type – 2015

SOURCE: OAG

Traffic for 2015 has been estimated based on OAG data and information collected from on-site interviews. Domestic traffic was estimated at 11% of the total passenger traffic, international traffic at 71% and General Aviation at 18%.

	Year 2015	Source
Total Traffic	**20.3**	**-**
Commercial Domestic	**2.2**	Estimate based on OAG and airport management information
Bahamas Air	N/A	
Commercial International	**14.4**	
Silver Airways	N/A	
Private	**3.7**	**Estimate based on airport management information**

Table 10: Treasure Cay passenger estimates for 2015 ('000 pax)

SOURCE: AIRPORT MANAGEMENT, CAD, OAG, ALG

ATMs have been estimated in a similar way to that of passenger traffic. General aviation ATMs represented 65% of the airport's total movements in 2015.

	Year 2015	Source
Total ATMs	**2.4**	**-**
Commercial Domestic	0.2	Estimate based on OAG and airport management information
Commercial International	0.6	
Private	1.6	Estimate based on airport management information

Table 11: Treasure Cay ATMs estimates for 2015 ('000 ATMs)

SOURCE: AIRPORT MANAGEMENT, CAD, OAG, ALG

4.4 Daily traffic profile

The selection of the design day for each one of the airports is based on the standard busy rate methodology, choosing the day with the 30th busiest hour of annual passenger flow.

4.4.1 Marsh Harbour

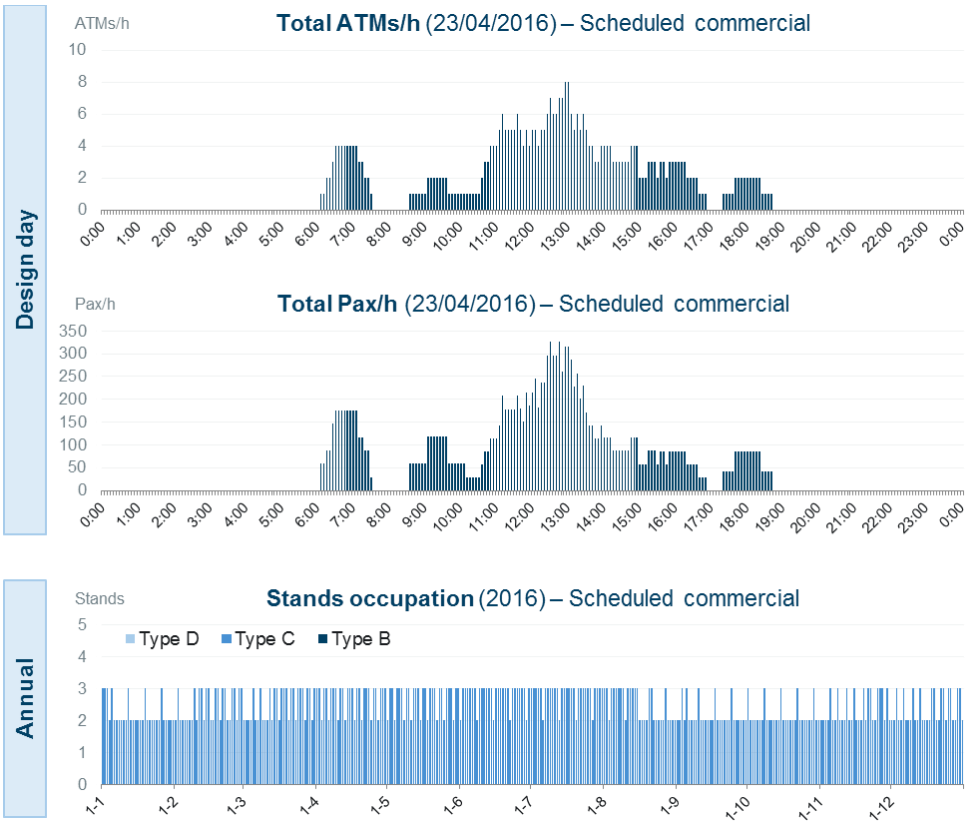


Figure 31: Marsh Harbour Airport commercial & scheduled ATMs/h, PHPs and stands

SOURCE: OAG

Design parameters have been estimated based on available OAG data: the design day shows a total of 8 ATMs in its peak hour, and 326 passengers (assuming an 85% load factor). With the current profile of operations in the airport, 3 Code C commercial stands would be required for scheduled commercial operations.

Design Parameters	Value (rolling)	Value (nominal)
Peak Hour ATMs - Total	**8**	**7**
Peak Hour ATMs - Departures	4	4
Peak Hour ATMs - Arrivals	4	4
PHP - Total	**326**	**316**
PHP - Departures	191	191
PHP - Arrivals	156	156
Stands - Total	**3**	**-**
Code B	-	-
Code C	3	-

Figure 32: Marsh Harbour Airport design parameters

SOURCE: OAG

4.4.2 Exuma

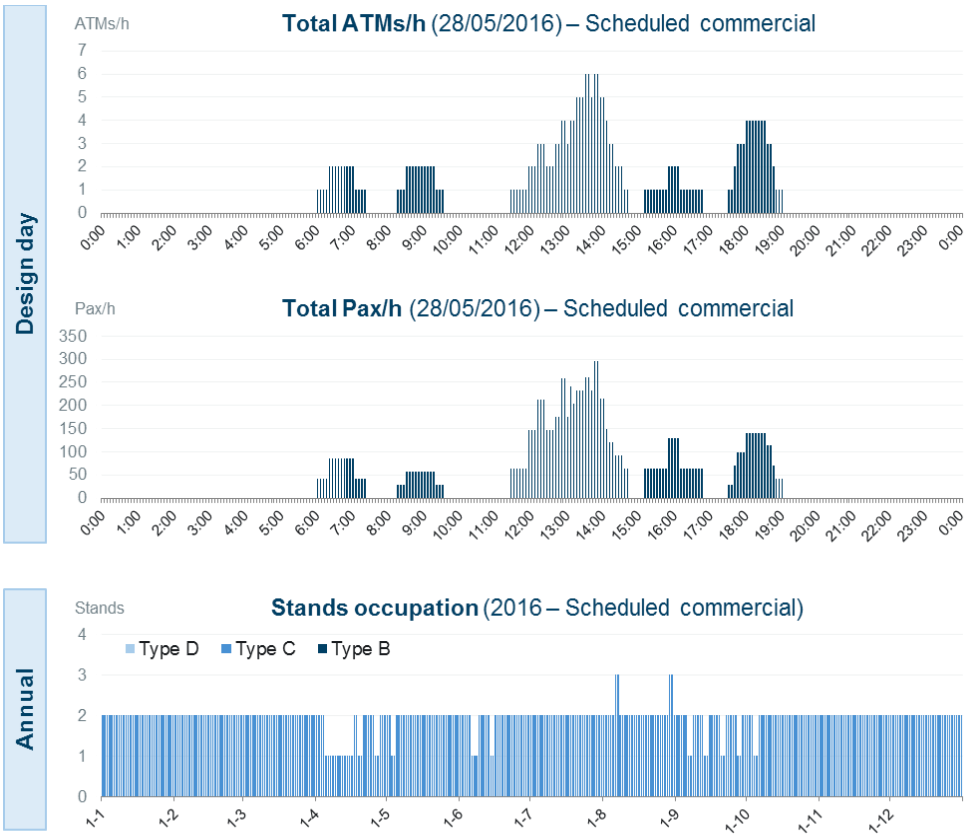


Figure 33: Exuma Airport commercial & scheduled ATMs/h, PHPs and stands

SOURCE: OAG

Design parameters have been estimated based on available OAG data: the design day shows a total of 6 ATMs in the peak hour, and 297 passengers (assuming an 85% load factor). With the current profile of operations in the airport, 3 Code C commercial stands are required for scheduled commercial operations.

Design Parameters	Value (rolling)	Value (nominal)
Peak Hour ATMs - Total	**6**	**5**
Peak Hour ATMs - Departures	3	3
Peak Hour ATMs - Arrivals	3	2
PHP - Total	**297**	**214**
PHP - Departures	176	176
PHP - Arrivals	147	147
Stands - Total	**3**	**-**
Code B	-	-
Code C	3	-

Figure 34: Exuma Airport design parameters

SOURCE: OAG

4.4.3 North Eleuthera

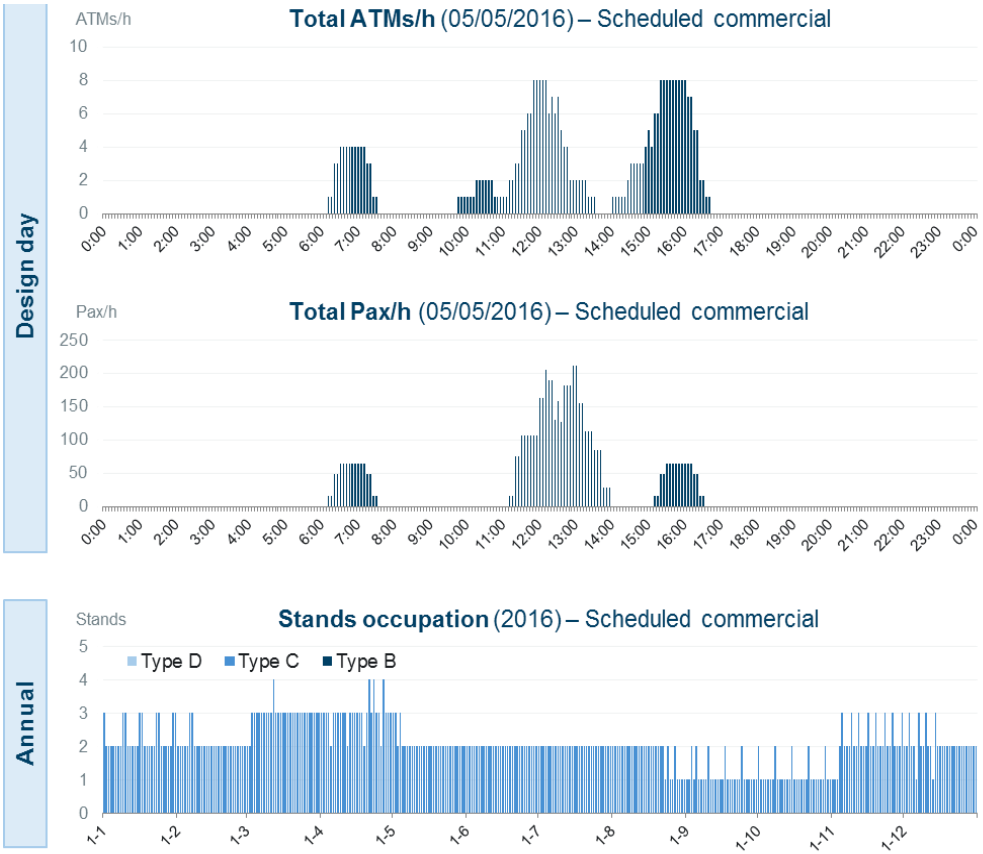


Figure 35: North Eleuthera Airport commercial & scheduled ATMs/h, PHPs and stands

SOURCE: OAG

Design parameters have been estimated based on available OAG data: the design day shows a total of 8 ATMs in the peak hour, and 211 passengers (assuming an 85% load factor). With the current profile of operations in the airport, 4 Code C commercial stands are required for scheduled commercial operations.

Design Parameters	Value (rolling)	Value (nominal)
Peak Hour ATMs - Total	**8**	**8**
Peak Hour ATMs - Departures	4	4
Peak Hour ATMs - Arrivals	4	4
PHP - Total	**211**	**211**
PHP - Departures	127	127
PHP - Arrivals	159	104
Stands - Total	**4**	**-**
Code B	-	-
Code C	4	-

Figure 36: North Eleuthera Airport design parameters

SOURCE: OAG

4.4.4 Treasure Cay

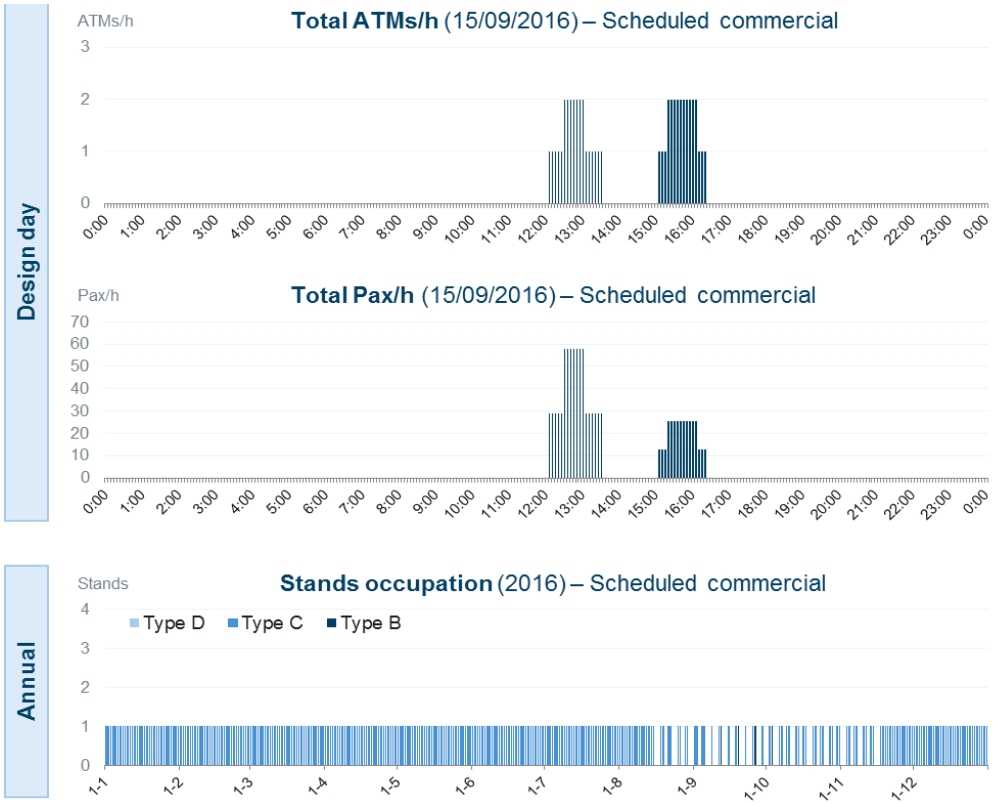


Figure 37: Treasure Cay Airport commercial & scheduled ATMs/h, PHPs and stands

SOURCE: OAG

Design parameters have been estimated based on available OAG data: the design day shows a total of 2 ATMs in the peak hour, and 58 passengers (assuming an 85% load factor). With the current profile of operations in the airport, only 1 Code C commercial stand is required for scheduled commercial operations.

Design Parameters	Value (rolling)	Value (nominal)
Peak Hour ATMs - Total	**2**	**2**
Peak Hour ATMs - Departures	1	1
Peak Hour ATMs - Arrivals	1	1
PHP - Total	**58**	**58**
PHP - Departures	29	29
PHP - Arrivals	29	29
Stands - Total	**1**	**-**
Code B	-	-
Code C	1	-

Figure 38: Treasure Cay Airport design parameters

SOURCE: OAG

4.5 Traffic forecast methodology

4.5.1 Short-term forecast

First of all, 2016 traffic figures have been estimated taking into account available year-to date traffic data at each airport. Therefore, based on actual traffic figures for Jan-May 2016 and, also, based on 2015 versus 2016 seat supply evolution, an average commercial traffic growth of 9% is expected for the 4 airports in 2016. On the other hand, private traffic is assumed to grow by around 1.5% in 2016.

		Seat supply growth YoY			Traffic growth YoY	
		Jan-May '15-'16	Jun-Dec '15-'16	Total '15-'16	Jan-May '15-'16	Total Estimated '15-'16
Marsh Harbour	Domestic	20.1%	9.0%	13.5%	8.8%	8.8%
	International	25.1%	46.0%	35.4%	19.6%	25.0%
	Total	**22.70%**	**26.30%**	**24.70%**	**14.00%**	**16.1%**
Exuma	Domestic	0.5%	1.9%	1.3%	N/A	1.3%
	International	21.0%	31.0%	26.1%	11.0%*	12.0%
	Total	**9.10%**	**11.40%**	**10.40%**	**N/A**	**6.4%**
North Eleuthera	Domestic	-0.5%	-3.7%	-2.4%	9.5%	5.0%
	International	53.0%	58.6%	56.1%	27.6%	25.0%
	Total	**21.80%**	**19.70%**	**20.60%**	**N/A**	**11.1%**
Treasure Cay	Domestic	0.0%	-56.5%	-33.3%	N/A	-33.3%
	International	-26.4%	7.5%	-9.6%	N/A	-9.6%
	Total	**-24.40%**	**0.60%**	**-11.80%**	**N/A**	**-12.7%**

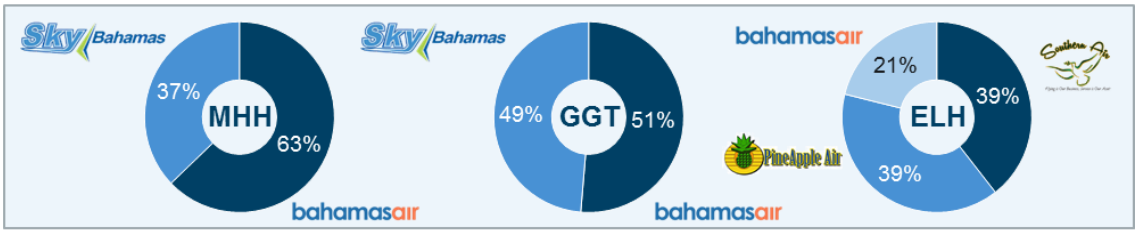
Note: Traffic data increase obtained comparing two different sources: 2015 data provided by the airport management and 2016 data obtained from the Security fee payments spreadsheet provided by CAD

Figure 39: Traffic forecast for 2016 by airport – 2016 vs 2015 YoY growth

Source: AIRPORT MANAGEMENT, CAD

Moreover, airline decisions that could affect 2017 traffic figures have also been incorporated in the forecast:

- A slight decrease in domestic traffic is expected in 2017 for Marsh Harbour and Exuma airports, as Sky Bahamas may be planning to cease its current operations in 2016. Currently, Sky Bahamas operates 37% and 49% of the airports seat supply respectively.
- In addition, Bahamas Air expects to cut its current capacity in North Eleuthera Airport. Currently, Bahamas Air operates 21% of the airport seat supply.



Note: Some local airlines do not appear in OAG (i.e. Western Air)

Figure 40: Domestic seat supply share by airline in MHH, GGT and ELH

SOURCE: OAG

Both airline decisions are expected to have limited impact in traffic figures as domestic load factors are currently low (50%-60%) and, on the other hand, such capacity decrease by Sky Bahamas in Marsh Harbour and Exuma and Bahamas Air in North Eleuthera could be partially compensated by increases from its competitors. Therefore, it has been assumed that 15% of the traffic from both airlines in the airports affected would be lost in 2017, while the rest would be absorbed by other airlines.

4.5.2 Long-term forecast

Air traffic demand forecast at the selected airports incorporates data from an econometric model based on Caribbean international seat supply. The Bahamas traffic demand is based on expected market share evolution taking into account an adjustment for the potential impact of the new political situation of USA and Cuba. Finally, traffic demand for Family Islands airports is forecasted based on expected market share evolution of each of the airports.

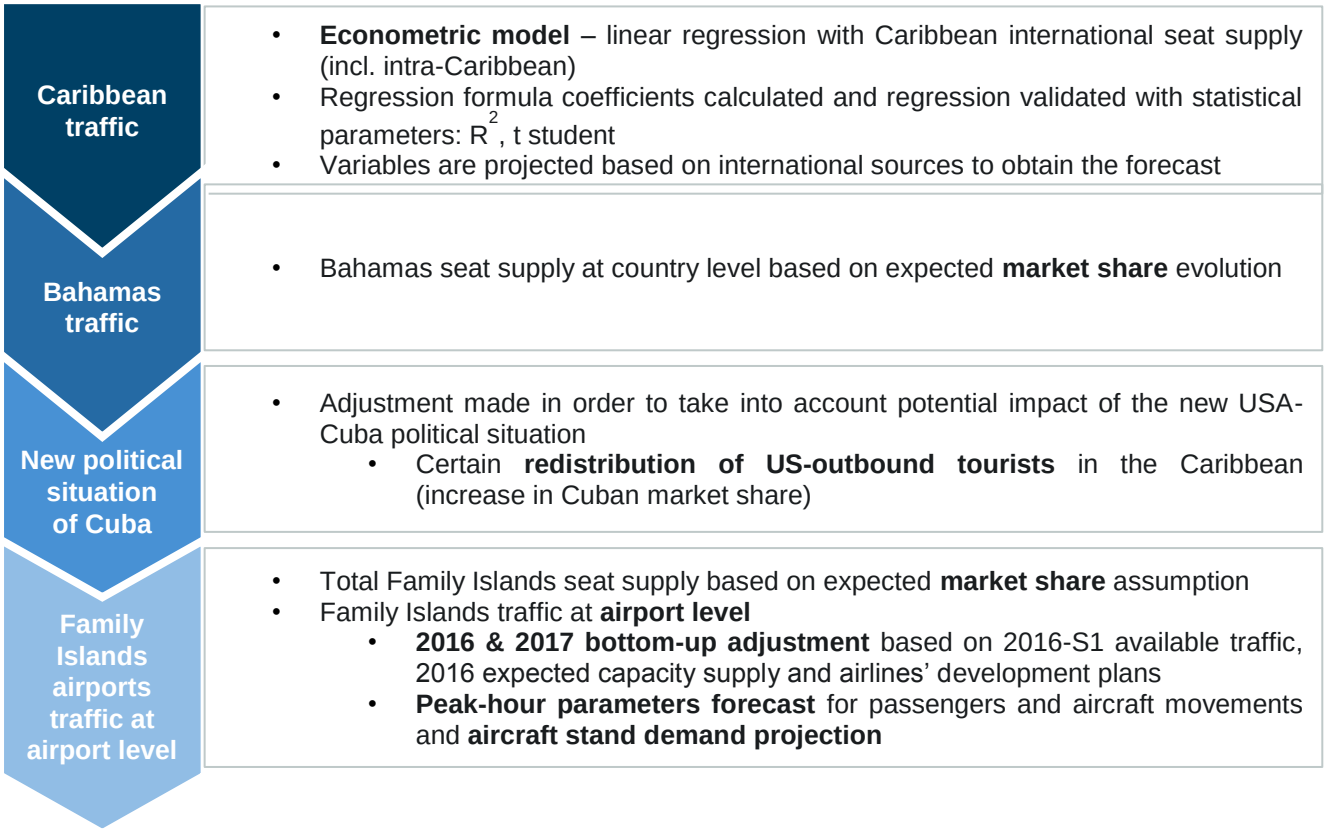


Figure 41: Long term traffic forecast methodology

The long term traffic forecast assumes that current airports' roles will be maintained throughout the concession period and that no new airport competition is to be created in this time span.

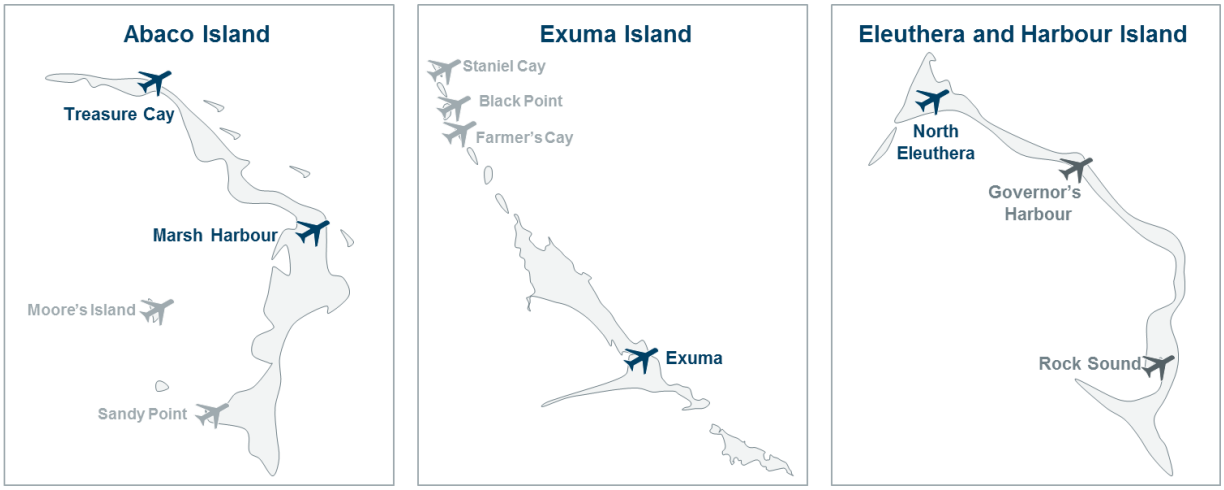


Figure 42: Abaco, Exuma & Eleuthera and Harbour Islands maps

Therefore, Marsh Harbour and Treasure Cay are assumed to remain as the only Tier 1 & 2 airports in Abaco Island, with TCB being complementary to MHH. No further airports are expected to be opened in Exuma Island and Tier 3 airports (Moore's Island, Sandy Point, Staniel Cay, Black Point and Farmer's Cay) are assumed to maintain their role and category. North Eleuthera would remain as the main airport in the Eleuthera and Harbour Island area.

4.6 Passenger traffic forecast results

Total traffic for the 4 analyzed airports is expected to grow at a CAGR of 2.9% from 2017 to 2042. Significant initial growth is expected between 2015 and 2017 with a total increase of approximately 70,000 passengers, mainly sustained by the international market evolution. From 2017 onwards, it is forecast that total aggregate traffic would reach 1.45 million passengers by 2042.

At an airport level, Exuma Airport is expected to grow at a CAGR of 3.1% between 2016 and 2042, whereas Treasure Cay traffic is expected to grow at a CAGR of 2.0%. Marsh Harbour and North Eleuthera airports are expected to grow at CAGRs of 2.9% and 2.7%, respectively.

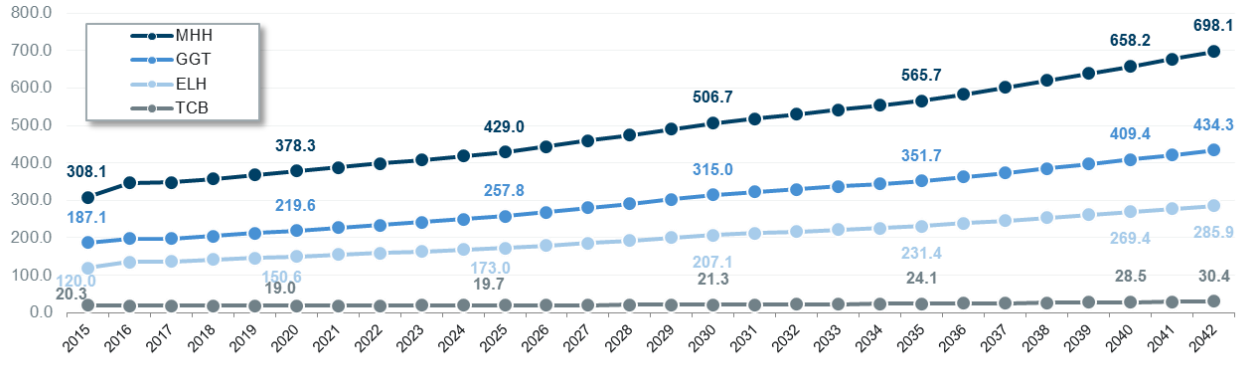


Figure 43: Passenger traffic forecast by airport (000' pax)

International traffic is expected to account for the highest growth with 3.5% CAGR, while the domestic market is expected to grow at a 2.9% CAGR and private traffic is expected to increase at a CAGR of 1% during the concession period. In line with this trend, international traffic market share should grow from its current 43% share to 50% by 2042.

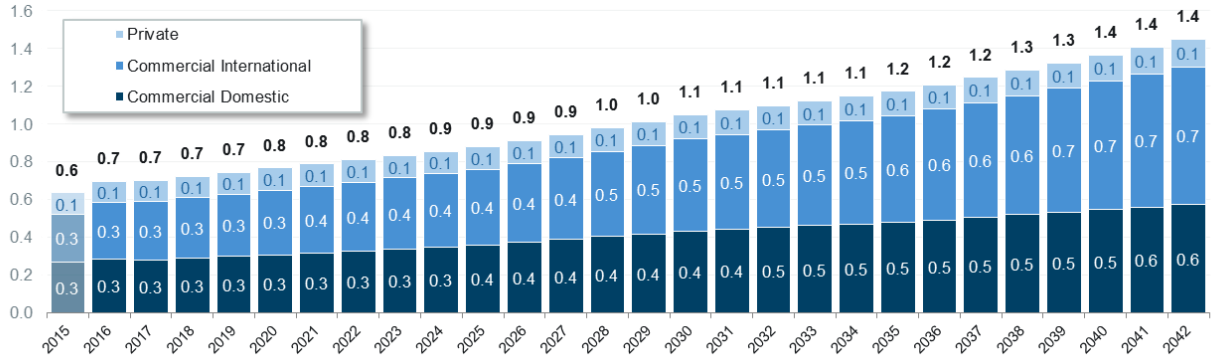


Figure 44: Passenger traffic forecast by market (Mpax)

4.7 Air Transport Movements forecast results

Total ATMs for the selected airports are assumed to grow at a CAGR of 1.5% between 2017 and 2042, reaching 103,000 ATMs by the end of the concession period.

At an airport level, ATMs at Exuma Airport are expected to grow at a CAGR of 2% between 2017 and 2042, while Marsh Harbour and North Eleuthera airports are expected to grow at a CAGR of 1.4% each. ATMs at Treasure Cay are expected to grow at a CAGR of 0.9% in the same period.

The lower growth rate in movements compared to that of passenger traffic is mainly due to the slight increase in the expected average load factors, the increase in the utilization of larger aircraft (expected increase in the average aircraft size based on current airlines' development plans), and the lower growth of General Aviation compared to commercial flights.

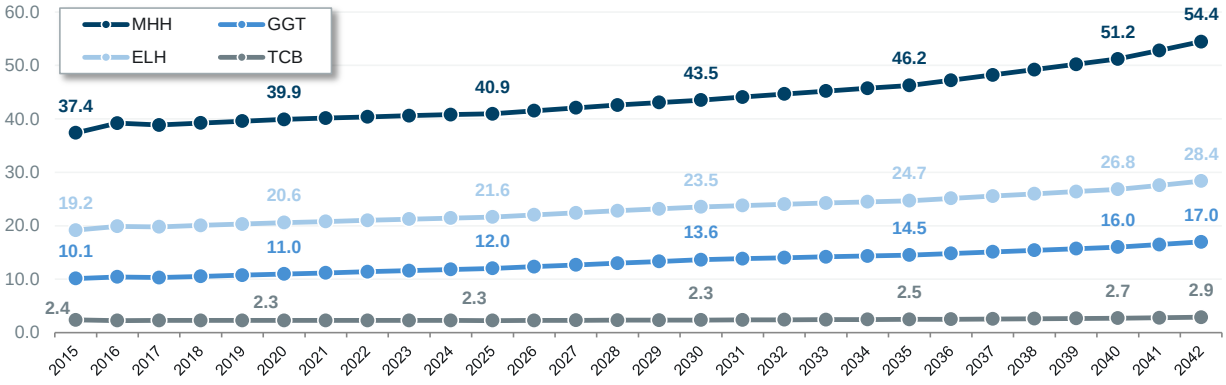


Figure 45: ATMs forecast by airport

In terms of market segments, commercial international movements are expected to account for the highest growth with a CAGR of 2.7%, whereas General Aviation ATMs should grow at a CAGR of 0.7%.

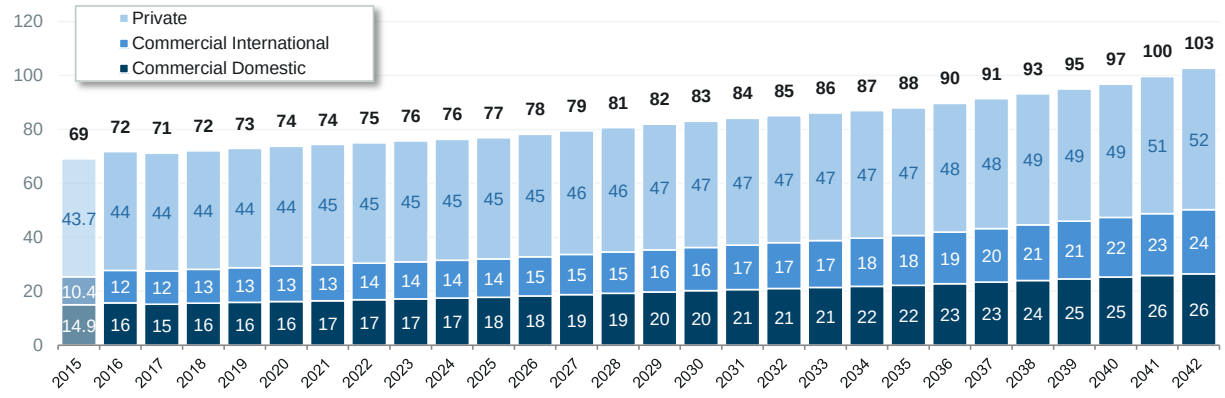


Figure 46: Combined ATMs forecast by market segment (000' ATMs)

4.8 Design parameters forecast results

Commercial Busy Hour parameters have been projected based on a bottom-up methodology validated with an international benchmark of Caribbean airports.

Busy Hour ATMs are expected to increase approximately 50% between 2017 and 2042.

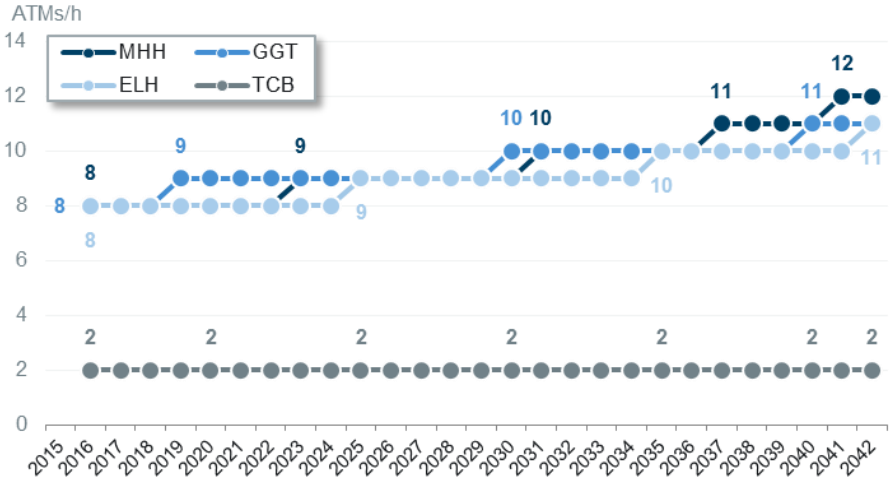


Figure 47: Total commercial ATMs/h evolution by airport (ATMs/h)

Demand for commercial aircraft stands is aligned to Busy Hour ATMs. It is expected that the number of required stands at Marsh Harbour will increase from 3 in the present to 5 in 2042, from 4 to 6 in North Eleuthera and from 3 to 5 in Exuma (minimum requirements).

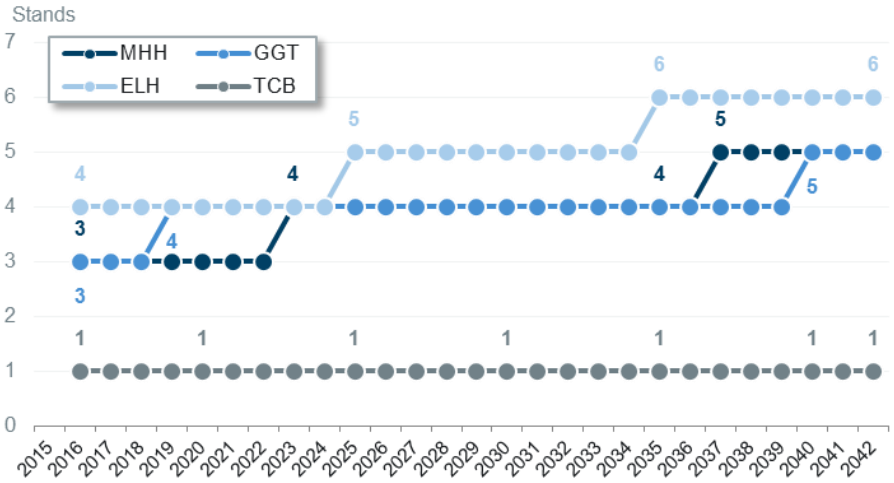


Figure 48: Total commercial net operational stands demand evolution (Stands)

Commercial PHP (Peak Hour Passengers) evolution has been estimated from the commercial Busy Hour ATMs forecast and double-checked with a Caribbean benchmarking of the peak-to-annual ratio.

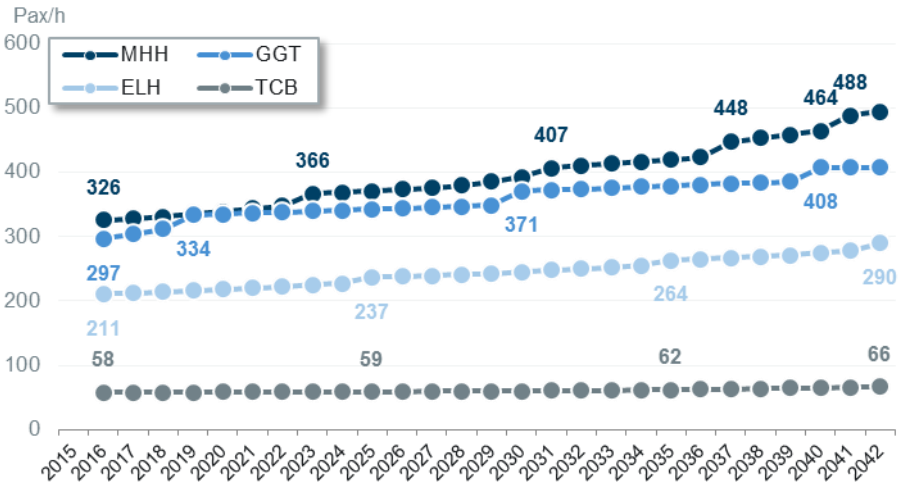


Figure 49: Total PHP evolution by airport (Pax/h)

5 FACILITY REQUIREMENTS AND CAPEX PROGRAM

5.1 Infrastructure development methodology

The assessment of the required infrastructure developments in the shortlisted Family Island airports has been carried out in two parts:

- Reviewing the level of compliance of each airport with ICAO's SARPs and proposing corrective/mitigation actions to enhance safety standards;
- Identifying required expansions to cope with growth in demand (passenger traffic).

The level of compliance with ICAO's SARPs has been determined through the review of available information and validated by on-site visits. Airport expansion needs have been defined through capacity and capability analysis of the following subsystems:

- Runway length, width and bearing capacity;
- Taxiway system capacity;
- Apron capacity;
- Terminal building capacity including sub-system's dimensioning;
- Rescue and firefighting services (RFF).

Detailed assessment methodology and calculation considerations are further detailed in the annexes of the document:

- Runway length and aircraft range;
- Taxiway capacity;
- Apron dimensioning criteria; and
- Terminal capacity

The identified deficiencies in the selected airports have led to the definition of the required civil works put out in this report.

In addition to the required civil works to upgrade the selected airports, recurrent asset maintenance and equipment renewal have been defined and are expected to be carried out by the future Concessionaire. In this regard, a uniform maintenance plan has been designed for the four airports, to be carried out throughout the concession period, including:

- At least one full airfield repavement (including runway, taxiways and apron) in each airport (timeframe of the repavement works varies depending on the current status of the infrastructure);
- Refurbishment of the terminal buildings every 15 years;
- Renewal of RFF vehicles every 15 years;
- Renewal of terminal security equipment every 10 years;
- Renewal of operations and maintenance vehicles every 10 years;
- Restoration of visual aids, including re-painting, replacing wind-socks and correcting airfield ground lighting deficiencies every 5 years.

The following chapters cover the outcomes of the infrastructure assessment and propose developments for each one of the airports. .

5.2 Infrastructure assessment and development plans

5.2.1 Marsh Harbour Airport

Marsh Harbour Airport undertook major upgrades in 2009 and 2010, including the construction of a new passenger terminal, the repavement of runway, taxiways and apron and the construction of a new control tower and a combined service building. Therefore, no major infrastructure upgrades are required in the short term. The detailed analysis of infrastructure development requirements has been carried out in the following section.

Runway

Marsh Harbour Airport has a 1,859 x 30 m runway[10]. Runway reference code restricts the operation of wide-body aircraft. Given the runway's length, only narrow body and regional aircraft can operate in this airport, such as the Boeing 737 and part of the Airbus A320 families.

The existing runway enables the landing and take-off of narrow-body aircraft operating at full passenger capacity at 80% of aircraft's MTOW, covering destinations located in east and central USA, southeast Canada, Central America and the Caribbean, as it is illustrated in the figure below:

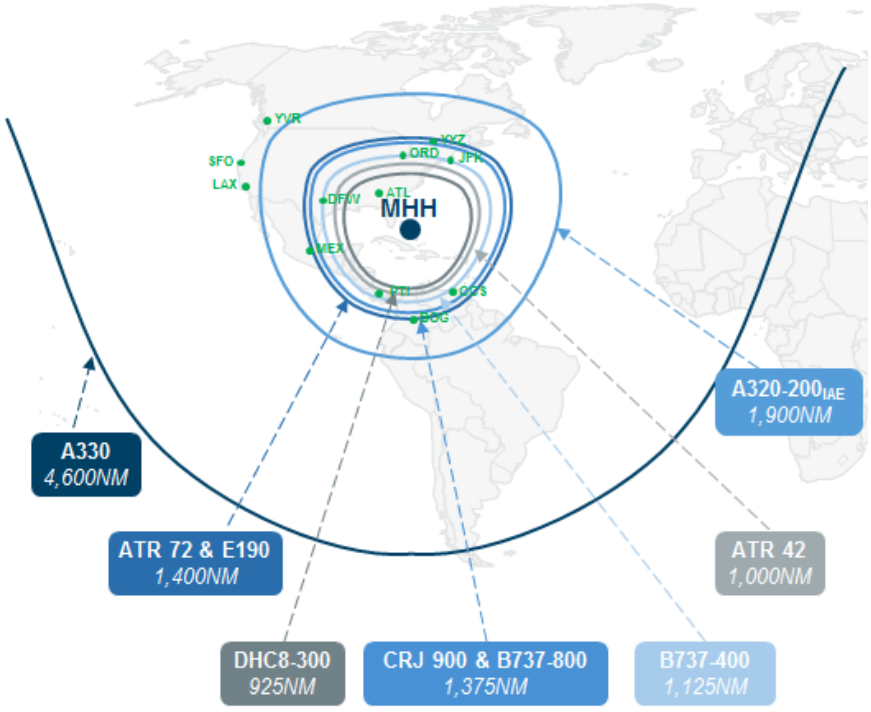


Figure 50: MHH maximum ranges per aircraft

ALG's market assessment and interviews with airlines' country representatives have not revealed sound demand that could justify runway upgrades. Punctual wide-body charter operations leverage on Treasure Cay airport (runway code 4E), located 45 km north from Marsh Harbour, while U.S West Cost destinations are served through hub and spoke operations via Atlanta, Orlando, Miami, Houston, Dallas and Charlotte.

The analysis carried out on runway ACN/PCN[11] has revealed that the PCN declared in the AIP is below the minimum ACN required for the forecasted demand. Using the Embraer 170/190 family as a reference aircraft and 4,721 equivalent ATMs over the next 20 years, ACN requirements reach 24.9 (based on COMFAA-30 software calculations). However, recent pavement works carried out on the runway in 2010

[10] *TORA=TODA=ASDA=LDA applicable to all selected airports*

[11] *The pavement classification number (PCN) is an ICAO standard used in combination with the aircraft classification number (ACN) to indicate the strength of a runway, taxiway or airport apron (or ramp). This helps to ensure that the airport runway, taxiway, and apron (or ramp) are not subjected to excessive wear and tear, thus prolonging the usable life of the runway while promoting safe operations of the aircraft landing thereon*

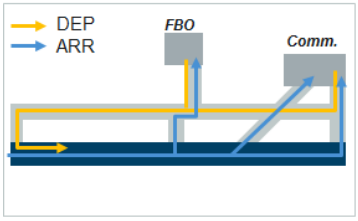
suggest that the actual bearing capacity might be above the one published in the AIP and sufficient to cope with the expected traffic. Nevertheless, a detailed assessment must be carried out in the short term to validate this assumption.

In line with the previous analysis, runway repavement has been considered as a recurrent maintenance activity to be carried out in the middle of the concession period.

Taxiways

Marsh Harbour's taxiway system is composed by one full parallel taxiway; three runway access taxiways, one at each runway end and one in front of the FBO; and one rapid exit taxiway in front of the commercial apron. All taxiways are 15 meters wide.

The taxiway system provides a capacity for 44 ATM/h considering a random sequence of take-offs and landings, ranging from 39 to 53 ATM/h in non-favourable and favourable sequences of operation, respectively. Time between consecutive operations can be found in the table below, considering preferred runway configuration 09 at 80% utilization.



Time between ops			
D-D	D-A	A-A	A-D
60s	102s[2]	122s[3]	45s

Hourly Capacity
39-53 ATM/h

TWY Width Code
C (15 m)

Figure 51: MHH taxiway system capacity

The following figure illustrates the forecasted evolution of peak hour ATM's throughout the concession period. Peak hour traffic is expected to reach 40 ATM/h by the end of the concession, which is below the calculated average capacity of the existing taxiway system.

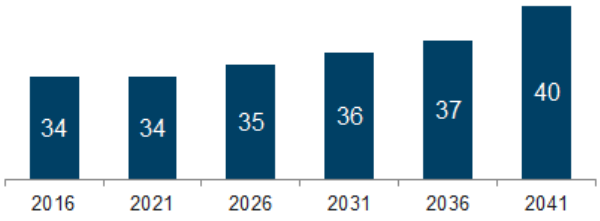


Figure 52: MHH peak hour ATMs growth

The capacity-demand analysis concluded that no further taxiways will be needed to cope with the expected growth of airport operations.

Apron

Marsh Harbour Airport's apron provides eleven Code A stands, two Code B stands, three Code C stands for turboprop aircraft and one Code C stand for narrow body jet aircraft.

Type A stands are dedicated to General Aviation traffic, complementing Cherokee's FBO-dedicated apron.

The expected demand growth in Marsh Harbour will require the simultaneous parking of 5 aircraft in the commercial apron. Taking into consideration that narrow-body code C aircraft traffic is gaining importance at the airport, the provision of 1 to 2 additional Code C stands is required by 2035. To cope with this traffic, 8,300 square meters expansion of the commercial apron (2 stands) will be necessary as part of the concession in the mid-term. This expansion will provide two additional Code C stands and is expected to

suffice to satisfy the traffic growth until the end of the concession period. An Apron layout, including the proposed apron expansion, is illustrated in the figure below:

Figure 53: MHH apron layout

Regarding General Aviation traffic, increasing demand for apron is expected to be covered by the FBO facilities and it has not been considered as a part of the scope of the concession, from an infrastructure development perspective.

Both commercial and General Aviation demand growth for apron stands are illustrated in the figure below:

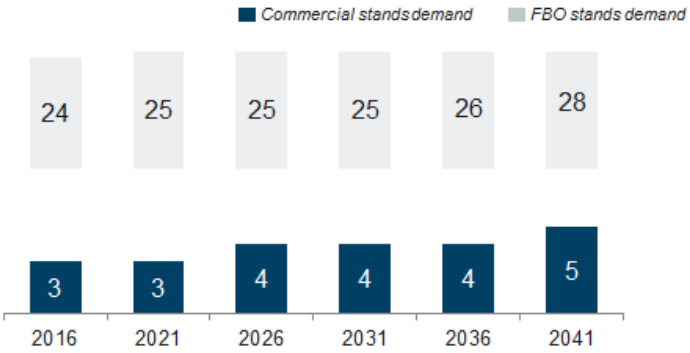


Figure 54: MHH stands demand forecast

Terminal building

The current passenger terminal building at Marsh Harbour was inaugurated in 2010. The building (4,260 square meters) has capacity to handle 300 Peak Hour Passengers (PHP) on departures, and 227 PHP on arrivals. At the time of construction of the terminal building (in 2009), separation between domestic and international traffic flows was planned both for arriving and departing passengers. Thus, the terminal provides separate check-in areas and separate arrivals and baggage claim areas for domestic and international passengers.

This design simplifies the flows of people in and out of the building but it does not provide the required flexibility to manage traffic peaks. Domestic and international traffic peaks do not occur at the same time of the day and synergies between facilities and equipment could have been achieved if the processing areas had not been physically separated.

The evolution of Peak Hour Passengers is expected to grow from its current level of 320 PHP to 500 PHP by 2042. A PHP forecast has been converted into terminal space requirements based on the guidelines provided by IATA's ADRM 2016 edition. The results of the capacity-demand assessment for terminal areas are summarized in the table below:

Item	Units	Designed	2022	2032	2042
Dep. & Arr. Hall	**m2**	**268**	**118**	**139**	**167**
Departures Hall	m2	268	65	76	91
Arrivals Hall	m2		53	63	76
Check-in	**m2**	**507**	**135**	**168**	**168**
Counters	#	11	4	5	5
Active Processing & Queuing	m2	257	72	90	90
Counters + BHS +ATO offices + circ.	m2	250	63	78	78
Security	**m2**	**114**	**64**	**64**	**64**
Security Screening Position	#	1	1	1	1
Security Screening Position & Circ.	m2	76	43	43	43
Queuing Area	m2	38	21	21	21
Boarding Lounge	m2	**421**	**163**	**193**	**232**
Baggage	**m2**	**276**	**245**	**259**	**402**
Bag. Reclaim Units	#	2	2	2	3
Bag. Reclaim	m2	60	60	60	90
Pax. Reclaim & Circ.	m2	216	184	199	312
Arrivals Control	**m2**	**236**	**142**	**162**	**196**
Passport control	m2	140	121	137	167
Customs	m2	96	20	24	29
Subtotal	**m2**	**1,822**	**867**	**985**	**1,228**
Other Items		**2,438**			
Total	**m2**	**4,260**			

Figure 55: Marsh Harbour terminal space capacity-demand assessment

The analysis highlights an over-dimensioning in terms of check-in space and a potential saturation of baggage claim systems in the mid-term. Having two separate baggage claim areas for domestic and international traffic prevents from enabling synergies to cope with peak demand. As a matter of fact, international baggage claim area is operating at capacity today and will not be able to cope with additional flights during the peak hour without diminishing the level of service provided.

In line with the previous analysis, an expansion of the international arrivals wing of the terminal building by 500 sqm has been considered as part of the scope of work of the concession.

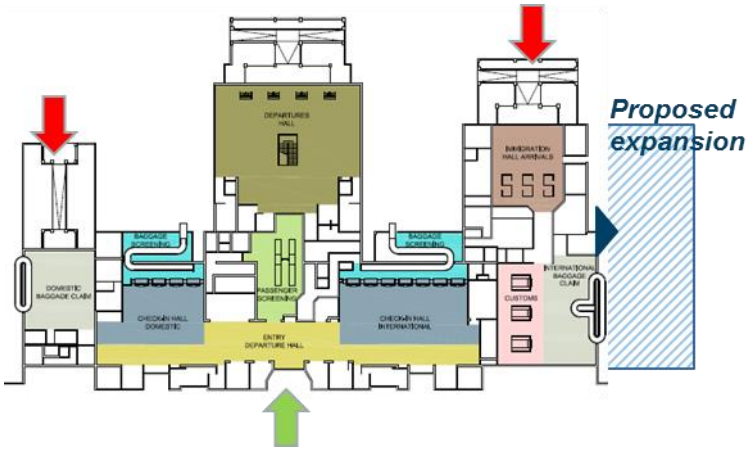


Figure 56: Current terminal and proposed expansion layout at MHH

RFFS

The dimensioning of RFFS at Marsh Harbour airport considers the B737-700 (33.6 m wingspan and 3.76 m fuselage width) as the design aircraft. This aircraft falls under Category 6 of ICAO's RFFS categorization, and therefore requires at least two RFF vehicles to be available at the airport at all times.

In the present, the airport is equipped with two firefighting vehicles but only one of them is fully operational. Therefore, a new RFF vehicle must be procured in the short term to comply with ICAO's guidelines. The airport RFFS fleet is expected to be renewed at least once throughout the concession period (considering a lifespan of 15 years for RFFS vehicles).

Proposed development initiatives

Based on the outcomes of the infrastructure assessment, the following activities have been identified as necessary capital expenditures to be executed in Marsh Harbour Airport throughout the concession period:

Short-term (2017-2019)

- Procurement and installation of wind direction indicator and provision of maintenance services for runway lights (2017)
- Procurement of firefighting vehicle (2017)
- Procurement of front-end loader vehicle (2017)
- Trimming of trees and vegetation within runway strip and Runway End Safety Areas - RESAs (2017)
- Procurement and installation of obstacle hazard lights and markings (2018)
- Procurement and installation of new aerodrome beacon (2018)
- Correct runway pavement overlay transition (2018)
- Execution of reparations in the terminal building (2018)

Mid-term (2020-2030)

- Renovation of airport firefighting vehicle (2020)
- Renovation of airfield markings and windsocks (2025 and every 5 years afterwards)
- Renovation of airport vehicles: pick-up truck and front-end loader (2027)
- Renovation of terminal security equipment (2027)
- Full terminal building refurbishment (2028)
- Full re-paving of runway, apron and taxiways (2030)

Long-term (2031-2042)

- Renovation of two airport firefighting vehicles (2032 and 2035, respectively)
- Apron and terminal building expansion, baggage claim and passport control areas (2035)
- Second renovation of airport vehicles: pick-up truck and front-end loader (2037)
- Second renovation of terminal security equipment (2037)
- Second terminal building refurbishment (2038)

Figure 57: MHH required infrastructure developments

5.2.2 Exuma Airport

Exuma Airport has experienced a steady growth in traffic over the last 3 years, bringing the current airport facilities close to saturation. Thus, urgent action is needed to enhance both airside and landside facilities in order to cope with the expected traffic growth. At the same time, some minor upgrades in the airside have been identified by the compliance assessment, in order to fully meet ICAO's SARPs.

The detailed analysis of infrastructure development needs has been carried out in the following sections.

Runway

Exuma Airport has a 2,134 m x 45 m runway, which is able to accommodate all targeted aircraft (all narrow-body aircraft and specific wide-body aircraft with some weight restrictions).

The capacity-range analysis has revealed that the existing runway enables both narrow and wide-body operations with continental and intercontinental ranges at full passenger capacity, as illustrated in the figure below.

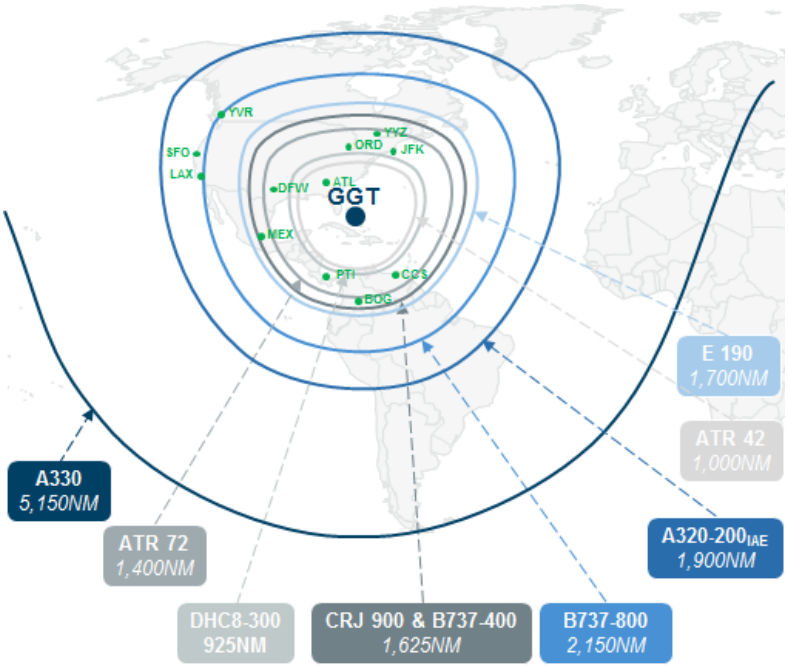


Figure 58: GGT maximum ranges per aircraft

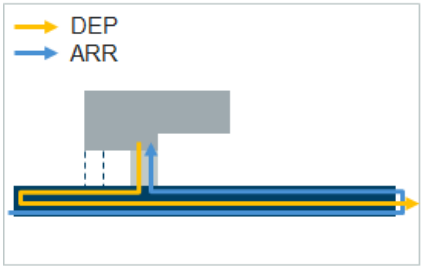
Based on the previous analysis, no extension in the runway is required in the medium term given current runway characteristics.

The PCN declared in the AIP is 30, above the minimum ACN required for the forecasted demand. Taking the Embraer 170/190 family as a reference aircraft and 6,338 equivalent ATMs over the next 20 years, ACN requirements reach 24.9 (based on COMFAA-30 software calculations).

Visual inspection on the asphalt conditions has revealed that the runway will need a resurfacing in the coming years (3 to 5 years based on consultation with Ministry of Works) to ensure integrity, especially in the central portion of the runway. The proposed action includes patch-repairs in the short-term to extend the life of the asset, and a full repavement of the central (20 meters) portion in the mid-term.

Taxiway

Exuma Airport's taxiway system is composed by one runway access taxiway, which is 15 meters wide (Type C), used by both commercial and General Aviation aircraft. The airfield has capacity to handle 21 ATM/h considering a random sequence of take-offs and landings, and ranging from 19 to 23 ATM/h in non-favourable and favourable sequences of operation, respectively. Time between consecutive operations can be found in the table below, considering the preferred runway configuration 07 at 85% utilization.



Time between ops			
D-D	D-A	A-A	A-D
225s	102s[2]	141s	198s

Hourly Capacity
19-23 ATM/h

TWY Width Code
D (18 m)

Figure 59: GGT taxiway capacity

The following figure illustrates the forecasted evolution of peak hour ATM's throughout the concession period. Peak hour traffic is expected to reach 24 ATM/h by the end of the concession, which is above the calculated average capacity of the existing taxiway system.

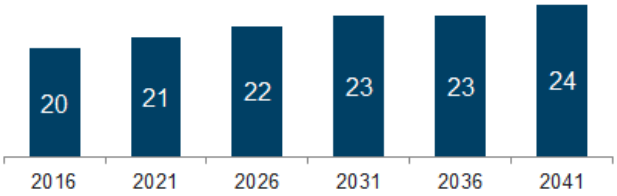


Figure 60: GGT peak hour ATMs growth

The capacity-demand assessment concluded that a new runway access taxiway will be required by 2025. Having two access taxiways will increase the airfield capacity up to 26 ATM/h, coping with the expected demand growth until the end of the concession.

Apron

The current apron configuration is divided into two sides, with the east side being used for General Aviation operations and the west side for commercial aviation operations. This configuration has been identified to be insufficient to cope with the forecasted demand. Therefore, a re-configuration of the apron is required as part of the airport development plans.

The proposed infrastructure plan includes the re-location of the FBO apron beyond the limits of the current apron (works to be carried out by the FBO Company). This will liberate needed space in the current apron to be taken over by commercial aviation operations. In line with that, a new apron configuration at Exuma Airport has been proposed, providing:

- Ten Code A stands, dedicated to General Aviation traffic;
- Eleven Code B stands;
- Three Code C stands for turboprop aircraft; and
- One Code C stand for narrow body jet aircraft

However, the current FBO apron will need to be reconstructed to increase PCN and to be able to properly absorb the higher charges applied by larger aircraft.

The new FBO apron is proposed to be re-located further to the east side of its current location. It is expected to accommodate 10 type A aircraft and 4 Type B aircraft.

The following image illustrates the proposed apron layout for the new commercial and FBO aprons:

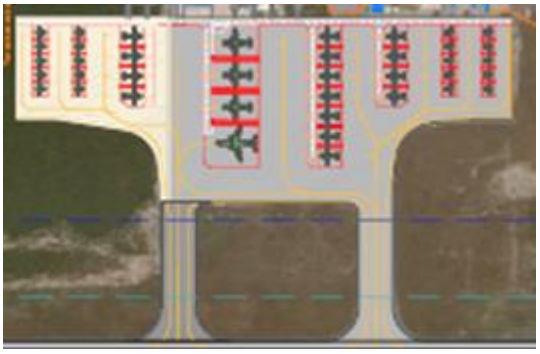


Figure 61: GGT projected apron layout

The expected traffic growth in Exuma Airport would require the simultaneous parking of 5 aircraft in the commercial apron. The new apron configuration will provide capacity to cope with this traffic. However, in case the use of larger narrow-body aircraft increases faster than the use of type B turboprop aircraft in the long run, the apron may need to be re-configured to provide more Type C stands instead of Type B stands.

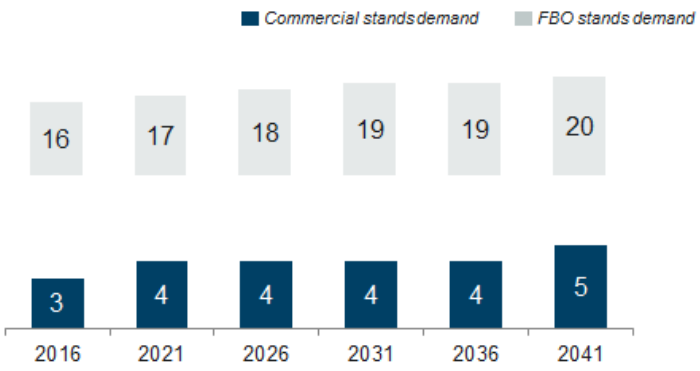


Figure 62: GGT stands demand forecast

General Aviation traffic is expected to be handled mainly at the new FBO apron provided by Odyssey (the FBO company at CGT), and complemented with the Type A and Type B stands of the commercial apron. Considering the capacity that will be provided by both aprons, available stands will be sufficient to meet General Aviation operational needs throughout the concession period.

Terminal building

The current passenger terminal at Exuma Airport is already operating close to saturation levels. This situation was addressed in 2013 by the updated version of the airport Master Plan, which proposed a new terminal development and relocation. The new terminal building is proposed to be located at the terrains currently occupied by the FBO terminal. At the moment of elaboration of this document, negotiations had been established between the BCAA and Odyssey for the relocation of the FBO facilities (including the provision of its new apron), the demolishment of the current FBO terminal and the construction of the new commercial terminal building.

The planned terminal has a very compact layout, with limited circulation areas between the key sub-systems. Support facilities such as office space and commercial areas are also kept to the minimum. This layout maximizes the available space for queuing, especially at check-in areas, as it is shown in the figure below:

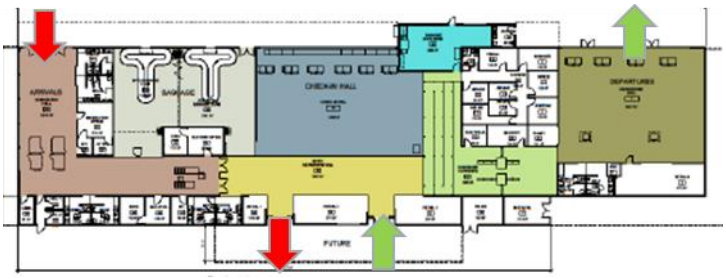


Figure 63: New terminal at GGT

The proposed building (1,962 square meters) has capacity to accommodate more than 300 PHP on departures, and 193 PHP on arrivals.

The evolution of peak hour passengers is expected to grow from its current level of 300 PHP to 410 PHP by 2042. The PHP forecast has been translated into required terminal space based on the guidelines provided by IATA's ADRM 2016 edition. The results of the capacity-demand assessment for terminal areas are summarized in the table below:

Item	Units	Designed	2022	2032	2042
Dep. & Arr. Hall	**m2**	**178**	**115**	**126**	**139**
Departures Hall	m2	178	63	69	76
Arrivals Hall	m2		52	57	63
Check-in	**m2**	**329**	**168**	**168**	**202**
Counters	#	6	5	5	6
Active Processing & Queuing	m2	208	90	90	108
Counters + BHS +ATO offices + circ.	m2	121	78	78	94
Security	**m2**	**146**	**64**	**64**	**64**
Security Screening Position	#	2	1	1	1
Security Screening Position & Circ.	m2	85	43	43	43
Queuing Area	m2	61	21	21	21
Boarding Lounge	m2	**277**	**159**	**176**	**192**
Baggage	**m2**	**254**	**243**	**251**	**259**
Bag. Reclaim Units	#	2	2	2	2
Bag. Reclaim	m2	60	60	60	60
Pax. Reclaim & Circ.	m2	194	183	191	199
Arrivals Control	**m2**	**230**	**145**	**164**	**194**
Passport control	m2	136	106	123	131
Customs	m2	94	39	41	63
Subtotal	**m2**	**1,357**	**894**	**949**	**1,049**
Other Items		**605**			
Total	**m2**	**1,962**			

Figure 64: GGT terminal space analysis

This new facility should be able to handle the forecasted demand until the end of the concession. However, baggage claim areas could reach saturation in the long term, causing a degradation of the level of service provided to passengers during peak hours. Other sub-systems such as the check-in area and the boarding lounge may also suffer capacity constraints which could be mitigated by a more efficient utilization of resources (i.e. the use of check-in counter sharing practices, which have not been yet introduced in the Family Islands airports).

RFFS

The compliance of RFFS at Exuma airport considers the A321 (34.1 meters wingspan and 3.95 meters fuselage width) as its design aircraft. This aircraft falls under Category 6 of ICAO's RFFS and requires at least two RFF vehicles to be available at the airport at all times.

Exuma has one firefighting vehicle but it is not able to meet the required response times. In addition, a second RFF vehicle is necessary to meet ICAO Cat 6. Therefore, two new RFF vehicles must be procured in the short-term. These fleet is expected to be fully renewed at least once throughout the concession period (considering an expected lifespan of 15 years for a RFF vehicle).

The airport fire station does not provide enough space to store two fire appliances. The existing building requires major repairs and a complete refurbishment. The action proposed by the Master Plan and endorsed by this assessment includes the demolition of the current fire station and the construction of a new combined service building in the same location. The new fire station should be planned to provide enough capacity to allocate the resources required for ICAO's RFFS Category 6 aircraft.

Proposed development initiatives

Based on the outcomes of the infrastructure assessment, the following activities have been identified as necessary capital expenditures in Exuma Airport throughout the concession period:

Short-term (2017-2019)

- Installation of a new aerodrome beacon and provision of maintenance services to runway lights (2017)
- Procurement of two firefighting vehicles (2017 and 2018)
- Procurement of one push-back vehicle and front-end loader vehicle (2017 and 2018)
- Trimming of trees and vegetation within runway strip and RESAs (2017 and 2018)
- Construction of RESAs (2018)
- Procurement and installation of wind direction indicator (2018)
- Partial reconstruction and relocation of existing FBO apron (2018)
- Construction of two runway turn pads (2018)
- Repair of apron floodlighting (2018)
- Definition of new marking for runway, taxiway and aprons (2018)
- Installation of security fence through 80% of the perimeter, jet-blast deflector wall and security gates (2019)
- Construction of new passenger terminal, car parking lot and access roads on the current location of the FBO (2019)
- Construction of a new combined service building and an associated car parking lot (2019)

Mid-term (2020-2030)

- Construction of a new runway access taxiway (2025), *subject to demand growth*
- Repavement of the central portion of the runway, old apron and taxiway (2025)
- Renovation of airfield markings and windsocks (2025 and every 5 years afterwards)
- Renovation of airport vehicles: pick-up truck, push-back and front-end loader (2027)
- Full refurbishment of terminal building, repairs and renovation of security equipment (2029)

Long-term (2031-2042)

- Renovation of airport firefighting vehicles (2032)
- Second renovation of airport vehicles: pick-up truck, push-back and front-end loader (2037)
- Second refurbishment of terminal building, repairs and security equipment (2039)

Figure 65: GGT proposed infrastructure developments

5.2.3 North Eleuthera Airport

North Eleuthera Airport presents important challenges to meet ICAO's SARPs. The main concern is the proximity between the passenger terminal building and the runway, which does not provide enough lateral separation and forces aircraft to park inside the runway strip.

A relocation of the terminal building and the apron is necessary, in line with one of the alternative options set out in the airport Master Plan. Taking advantage of this relocation, the passenger terminal building and apron used for commercial flights would be expanded to meet with the expected traffic growth.

Runway

North Eleuthera Airport has a 1,834 x 30 m runway, code 3 C. The existing runway enables the operation of narrow-body aircraft at full passenger capacity covering destinations in east and central USA, southeast Canada, Central America and the Caribbean, as it is illustrated in the figure below:

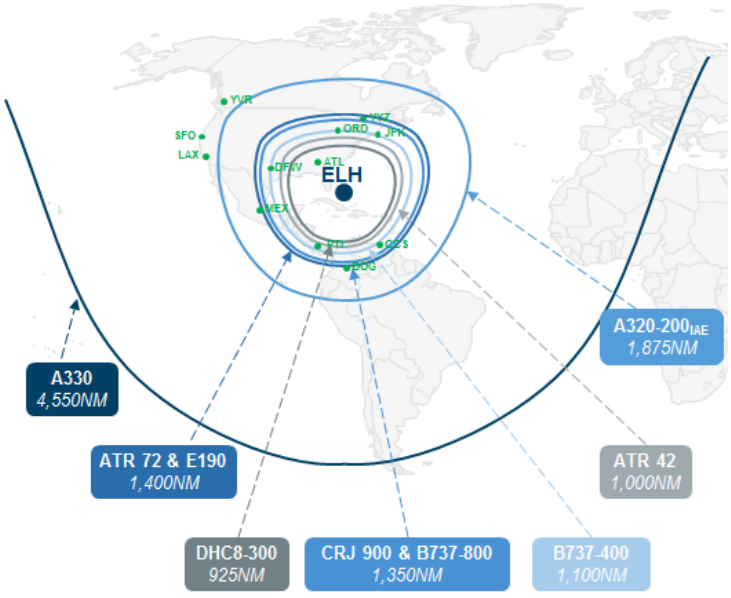


Figure 66: ELH maximum ranges per aircraft

The runway length imposes minor weight limitations for the take-off of specific narrow body aircraft, such as some Boeing 737 models and some Airbus A320 family versions. However, ALG's market assessment and on-site interviews with airlines' representatives have revealed that the current runway length is not hindering route developments at the airport, as most of target destinations can be served without operational restrictions.

With regards to runway asphalt, the ACN/PCN analysis has revealed that the PCN declared in the AIP is below the minimum ACN required for the forecasted demand. Taking the Embraer 170/190 family as the reference aircraft and assuming a total of 1,364 equivalent ATMs over the next 20 years, ACN requirements reach 24.9 (based on COMFAA-30 software calculations). However, the PCN declared in the AIP is 17.

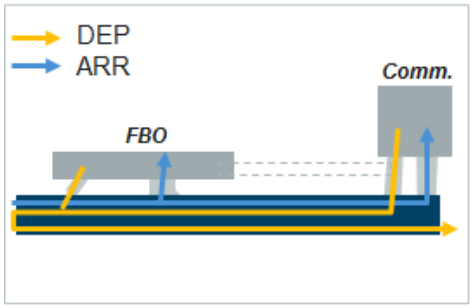
Based on a visual runway inspection, it has been determined that the runway needs a re-surfacing in the short-term. Numerous cracks were identified along the runway and especially around touchdown areas. The runway has never been re-paved since its construction (more than 20 years ago).

Based on the previous considerations, a full runway re-pavement must be carried out in the short-term to increase the runway bearing capacity and to repair the existing cracks.

Taxiway

North Eleuthera Airport has two runway access taxiways. As part of the proposed relocation of the commercial apron, two new type C runway access taxiways will be constructed, connecting the new facilities with the runway across threshold 17.

The new taxiway system will provide capacity for 26 ATM/h considering a random sequence of take-offs and landings, ranging from 24 to 28 ATM/h in non-favourable and favourable sequences of operation, respectively. Time between consecutive operations can be found in the table below, considering a preferred runway configuration 07 at 90% utilization in the new proposed layout.



Time between ops			
D-D	D-A	A-A	A-D
179s	102s[2]	122s[3]	159s

Hourly Capacity
24-28 ATM/h

TWY Width Code
C (15 m)

Figure 67: ELH taxiway capacity

The following figure illustrates the forecasted evolution of peak hour ATMs throughout the concession period. Peak hour traffic is expected to reach 27 ATM/h by the end of the concession, which is above the calculated average capacity of the existing taxiway system.

The capacity-demand study concluded that by 2027 a new partial parallel taxiway (Type C) will be required to provide additional capacity to cover for the expected traffic growth. The partial parallel taxiway will connect the new commercial apron with the old FBO apron, reducing the taxi time on the runway for commercial aircraft. This parallel taxiway would increase airfield capacity up to 28 ATM/ph.

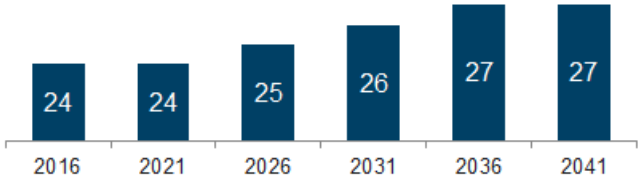


Figure 68: ELH peak hour ATMs growth

Apron

The proposed new apron at North Eleuthera Airport would provide four Code C stands for turboprop aircraft and two Code C stands for narrow body jet aircraft, as it is illustrated in the layout below:

Figure 69: ELH Apron layout (proposed)

The expected traffic growth at North Eleuthera Airport would entail the simultaneous parking of 6 aircraft in the commercial apron. The designed apron has the capacity to cope with this situation and would suffice to satisfy the expected traffic growth until the end of the concession period. Thus, no further apron expansion will be required. Commercial and General Aviation demand growth for apron stands is illustrated in the figure below:

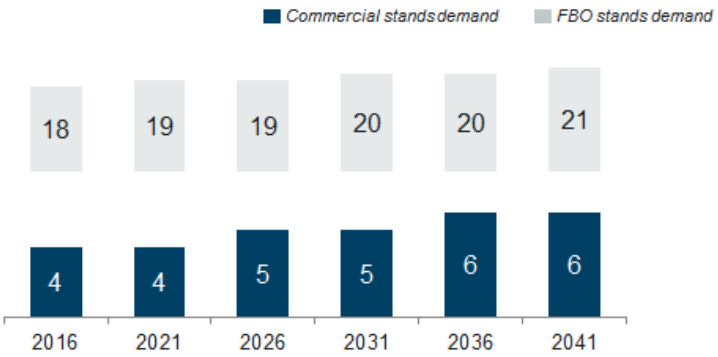


Figure 70: ELH stands demand forecast

With regards to General Aviation traffic, the forecasted increase in apron demand is expected to be covered by the existing FBO facilities at the old apron, and no related infrastructure developments are required throughout the concession.

There is a possibility to relocate the FBO apron in the vicinities of the new facilities. However, this option is subject to private negotiations between the FBO operator and the MOTA, and it is not expected to impact the conclusions of the forecast set out above.

Terminal building

The current passenger terminal building at North Eleuthera Airport is already at saturation levels. This situation was addressed in 2013 by the new airport Master Plan, which proposed the construction of a new terminal building located at a distance from the runway strip. The proposed terminal for ELH has the same characteristics as the one proposed for Exuma Airport: 1,962 covered square meters and a capacity of 300 PHP.

PHP are expected to grow from its current level of 210 PHP to 290 PHP. This forecast has been translated into terminal space requirements based on the guidelines provided by IATA's ADRM 2016 edition. The results of the capacity-demand assessment for terminal areas are summarized in the table below:

Item	Units	Designed	2022	2032	2042
Dep. & Arr. Hall	**m2**	**178**	**76**	**85**	**98**
Departures Hall	m2	178	42	47	54
Arrivals Hall	m2		34	38	44
Check-in	**m2**	**329**	**135**	**135**	**135**
Counters	#	6	4	4	4
Active Processing & Queuing	m2	208	72	72	72
Counters + BHS +ATO offices + circ.	m2	121	63	63	63
Security	**m2**	**146**	**64**	**64**	**64**
Security Screening Position	#	2	1	1	1
Security Screening Position & Circ.	m2	85	43	43	43
Queuing Area	m2	61	21	21	21
Boarding Lounge	m2	**277**	**105**	**118**	**136**
Baggage	**m2**	**254**	**217**	**223**	**232**
Bag. Reclaim Units	#	2	2	2	2
Bag. Reclaim	m2	60	60	60	60
Pax. Reclaim & Circ.	m2	194	157	163	172
Arrivals Control	**m2**	**230**	**110**	**118**	**130**
Passport control	m2	136	77	84	94
Customs	m2	94	32	34	36
Subtotal	**m2**	**1,357**	**699**	**743**	**795**
Other Items		**605**			
Total	**m2**	**1,962**			

Figure 71: ELH terminal space analysis

The new facility should be able to handle the forecasted demand until the end of the concession. No areas are expected to reach saturation levels that would downgrade the level of service provided.

RFFS

The dimensioning of RFFS at North Eleuthera Airport considers B737-700 (33.6 meters wingspan and 3.76 meters fuselage width) as its design aircraft. This aircraft falls under Category 6 of ICAO's RFFS and requires at least two RFF vehicles to be available at the airport at all times.

Nowadays, the airport is equipped with one firefighting vehicle in poor maintenance conditions. Therefore, two new RFF vehicles must be procured in the short term to comply with ICAO's guidelines. RFF vehicles are expected to be renewed every 15 years.

As part of the relocation of the terminal building and the commercial apron, a new airport fire station must be built. The new airport fire station must be designed to provide enough capacity to allocate the resources required for ICAO RFFS Category 6 aircraft.

Proposed development initiatives

Based on the outcomes of the infrastructure assessment, the following activities have been identified to require capital expenditures in North Eleuthera Airport throughout the concession period:

Short-term (2017-2019)

- Procurement of new aerodrome beacon, PAPI[12] lights and windsock (2017)
- Procurement of front-end loader vehicle and pick-up truck (2017)
- Procurement of two firefighting vehicles (2017 and 2018)
- Construction of RESA[13]s (2018)
- Trimming of trees and vegetation within runway strip and RESAs (2017 and 2018)
- Maintain runway lights (2018)
- Expansion of runway turn pads (2018)
- Full runway re-pavement (2018)
- Installation of drainage wells at the lowest points of the runway (both sides) (2018)
- Construction of a new commercial apron and two runway access taxiways, including lighting system (2019)
- Definition of marking for runway, taxiways and aprons (2019)
- Installation of security fence through 25% of the airport perimeter and security gates (2019)
- Construction of a new passenger terminal, car parking lot and access roads (2019)
- Construction of a new combined service building and an associated car parking lot (2019)

Mid-term (2020-2030)

- Renovation of airfield markings and windsocks (2025 and every 5 years afterwards)
- Construction of partial parallel taxiway and repavement if existing apron (2027), *subject to demand growth*
- Renovation of airport vehicles: pick-up truck and front-end loader (2027)
- Full refurbishment of terminal building, repairs and renovation of security equipment (2029)

Long-term (2031-2042)

- Second renovation of airport firefighting vehicles (2032)
- Second renovation of airport vehicles: pick-up truck and front-end loader (2027)
- Second refurbishment of terminal building, repairs and security renovation (2039)

[12] Precision Approach Path Indicator
[13] Runway End Safety Area

Figure 72: ELH proposed infrastructure developments

5.2.4 Treasure Cay Airport

Treasure Cay airport is expected to remain as an airport dedicated to General Aviation, while complementing Marsh Harbour airport for specific operations of narrow body jet aircraft and very rarely. wide body aircraft. In line with this assumption, the airport is to be upgraded up to ICAO standards and maintained accordingly during the concession.

Runway

Treasure Cay has a 2,134 x 30 m runway, same as Exuma's, which is able to accommodate all target aircraft, all narrow-body aircraft with no further restrictions and some wide-body aircraft with some weight restrictions. The runway complements Marsh Harbour's lack of capabilities in case of punctual charter operations. The capacity-range analysis has revealed that this runway enables both narrow and wide-body operations with continental and intercontinental ranges at full passenger capacity, as illustrated in the figure below.

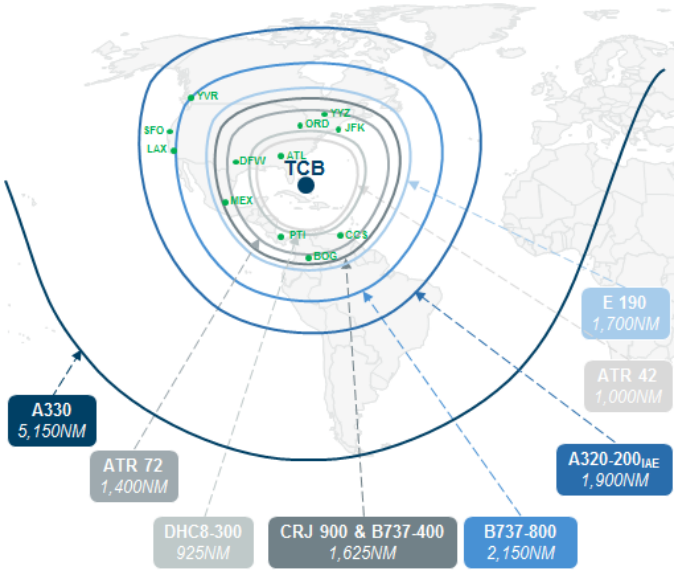


Figure 73: TCB maximum ranges per aircraft

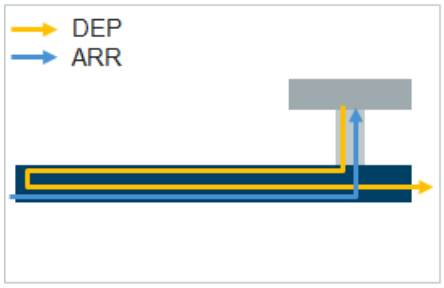
Based on the previous considerations, no extension in the runway is required during the concession period.

The PCN declared in the AIP is 35, above the minimum ACN required for the forecasted demand. Taking the A320 family as the reference aircraft and a total of 26 equivalent ATMs over the next 20 years, ACN requirements reach 35 (based on COMFAA-30 software calculations).

Visual inspection on the asphalt conditions has revealed that the runway will need a full repavement in 5 to 10 years-time.

Taxiways

The taxiway system at Treasure Cay Airport is composed by one runway access taxiway, 15 meters wide (Type C), used by both commercial and General Aviation aircraft. The airfield has the capacity to handle 18 ATM/h considering a random sequence of take-offs and landings, ranging from 16 to 21 ATM/h in non-favourable and favourable sequences of operation, respectively. Time between consecutive operations can be found in the table below, considering the preferred runway configuration (header 14) at 85% utilization.



Time between ops			
D-D	D-A	A-A	A-D
289s	102s[2]	122s[3]	239s

Hourly Capacity
16-21 ATM/h

TWY Width Code
D (18 m)

Figure 74: TCB taxiway capacity

Taxiway system at Treasure Cay Airport is quite similar to that at Exuma Airport. It provides a lower capacity because of the long distance between the apron and the landing/take-off position, which makes time circuits longer.

The following figure illustrates the forecasted evolution of peak hour ATM's throughout the concession. Peak hour traffic is expected to keep constant at 6 ATM/h throughout the concession, which is below the calculated average capacity of the existing taxiway system.

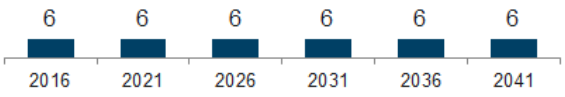


Figure 75: TCB peak hour ATMs growth

Therefore, no further taxiways will be needed to cope with the expected traffic growth.

Apron

The existing apron provides thirteen Code A stands, four Code B stands and two Code C stands for large narrow body aircraft.

According to the traffic forecast, there will be no need for more than two stands for commercial aircraft in the apron throughout the concession. Therefore, no apron expansion will be required.

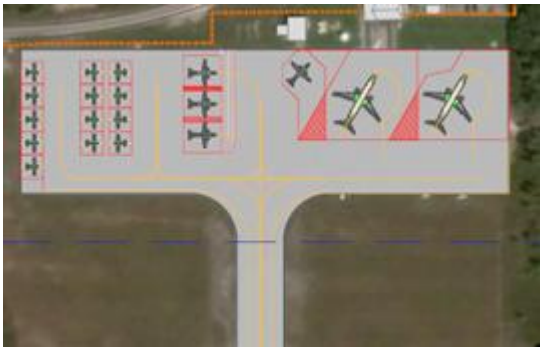


Figure 76: TCB Apron layout

Regarding General Aviation traffic, the demand for stands is also projected to remain almost constant, and the current apron should be large enough to handle the expected traffic growth. Commercial and General Aviation forecasted demand for apron stands is illustrated in the figure below:

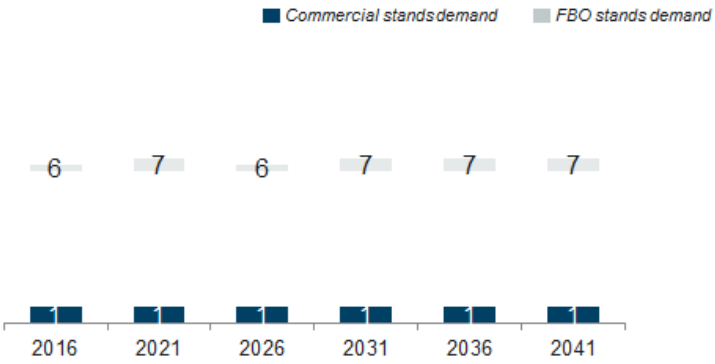


Figure 77: TCB stands demand forecast

Terminal building

The current terminal at Treasure Cay (420 square meters), provides the bare minimum space required to handle General Aviation (customs and immigration) and one small commercial aircraft in a multi-purpose departures area.

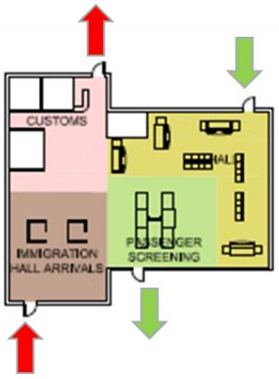


Figure 78: Current terminal at TCB

Whenever a narrow-body/wide-body charter operates in Treasure Cay, the level of service provided at the terminal drops. However, the situation is not regular enough to justify building and maintaining larger facilities.

In order to keep Treasure Cay as a complementary runway for Marsh Harbour, the Level of Service at the terminal building should be able to properly serve General Aviation, and be allowed to diminish when commercial charters land at the airport (rare occasions).

			AS IS			GA	
Item	Units	Designed	2022	2032	2042	2042	Charter
Departures Area	**m2**	**181**	**158**	**160**	**164**	**109**	**524**
Dep. & Arr. Hall	**m2**	-	**20**	**21**	**23**	**-**	**122**
Check-in	**m2**	**-**	**47**	**47**	**47**	**27**	**168**
Counters	#	4	1	1	1	1	5
Active Processing & Queuing	m2	-	31	31	31	11	90
Counters + BHS +ATO offices + circ.	m2	-	16	16	16	16	78
Security	**m2**	N/A	**64**	**64**	**64**	**64**	**64**
Security Screening Position	#	-	1	1	1	1	1
Security Screening Position & Circ.	m2	-	43	43	43	43	43
Queuing Area	m2	-	21	21	21	7	21
Boarding Lounge	m2	-	**27**	**28**	**31**	**-**	**169**
Baggage	**m2**	**N/A**	**57**	**57**	**58**	**-**	**372**
Bag. Reclaim Units	#	-	1	1	1	-	3
Bag. Reclaim	m2	-	30	30	30	-	90
Pax. Reclaim & Circ.	m2	-	27	27	28	-	282
Arrivals Control	**m2**	**138**	**58**	**59**	**62**	**32**	**272**
Passport control	m2	82	32	33	35	11	197
Customs	m2	56	26	26	26	21	74
Subtotal	**m2**	**319**	**272**	**276**	**284**	**79**	**1,167**
Other Items		**101**					
Total	**m2**	**420**					

Figure 79: Current terminal at TCB

RFFS

RFFS at Treasure Cay airport considers the A320 (34.1 m wingspan and 3.95 m fuselage width) as design aircraft. This aircraft falls under Category 6 of ICAO's categorization. However, when the number of movements of the aircraft in the highest category using the aerodrome is less than 700 in the airport's three busiest consecutive months, the level of protection provided can be downgraded by one level. Therefore, Treasure Cay needs to have at least one RFF vehicle to be in compliance with the requirements of ICAO's category 5 aerodromes.

In the present, the airport is equipped with one firefighting vehicle that needs to be replaced in the short-term. Therefore, one new RFF vehicle must be procured in the short term to comply with ICAO's guidelines. The RFF vehicle is expected to be renewed after 15 years.

In addition, the fire station needs to be refurbished.

Proposed development initiatives

Based on the considerations set out above, the following activities have been identified to require capital expenditures in Treasure Cay Airport throughout the concession period:

Short-term (2017-2019)

- Procurement and installation of wind direction indicator and maintenance of runway lights (2018)
- Procurement of one firefighting vehicle (2018)
- Definition of marking for runway, taxiways and aprons (2018)
- Construction of RESAs (2018)
- Construction of runway turn pad (2018)
- Trimming of trees and vegetation within runway strip and RESAs (2018)
- Installation of security fence through 80% of the airport perimeter and security gates (2018)
- Full terminal building refurbishment and repairs (2018)
- Procurement of security equipment (2018)

Mid-term (2020-2030)

- Full re-pavement of runway, apron and taxiways (2025)
- Renovation of airfield markings and windsocks (2025 and every 5 years afterwards)
- Renovation of airport vehicles: pick-up truck and front-end loader (2027)
- Full terminal building refurbishment and repairs (2028)
- Renovation of terminal security equipment (2030)

Long-term (2031-2042)

- Renovation of the airport firefighting vehicle (2033)
- Second renovation of airport vehicles: pick-up truck and front-end loader (2037)
- Second terminal building refurbishment and repairs (2038)
- Second renovation of terminal security equipment (2040)

Figure 80: TCB proposed infrastructure developments

5.3 Required capital expenditures and investment plan methodology

The assessment of required capital expenditures and investment plan in the selected Family Island airports has been carried out by budgeting and allocating each one of the above described activities in the infrastructure assessment and development plan. Budgeting has been carried out multiplying unitary costs of each capital expenditure (Capex) item by the dimensions/number of units associated. The exercise entails more than 60 Capex streams. Among them, the 12 items listed below contribute 90% of the overall budget.

Main CAPEX items	Unit	Unit cost USD
RWY, TWY & apron construction	m^2	137.9
RWY, TWY & apron reconstruction	m^2	83.4
RWY, TWY & apron pavement	m^2	59.0
Terminal ELH[1]	m^2	6,275
Terminal GGT[1]	m^2	5,100
Combined Services Building ELH[1]	M^2	3,250
Combined Services Building GGT[1]	m^2	2,400
Firefighting Vehicle – Storm (Tier 1)	unit	706,000
Firefighting Vehicle – Stinger (Tier 2)	unit	460,000
Security Fence	m	150.0
Car Parking	m^2	110.0

Road Construction	m^2	104.0
Others (rep. 10% of overall CAPEX)	-	
Project Management	% CAPEX	+10%
Location Factor GGT, ELH	% CAPEX	+5%

Figure 81: Unitary costs for the main Capex items

From the list above, capital expenditures associated to RFFS vehicles have been considered to be carried out by the Bahamian Government out of the concession as part of the arrangement for the MOTA to keep the competences on the provision of RFFS and Security in Family Island airports (base-case scenario for the concession agreement). Nevertheless, the expenditures associated to bring RFFS up to ICAO standards have been calculated and are presented separately in the following investment plans.

Investments are expected to take place before the year of execution and commissioning of civil works. Typically a gap of one to two years can be expected between these two situations. Major investments, such as the construction of passenger terminals and combined service buildings, or the construction of new apron and parallel taxiways have been assumed to be paid over the two years prior to commissioning (one half of the total cost each year).

In addition to the capital expenditures associated to the development plans, a sum of USD 2 million has been added as the initial cost for the Concessionaire to prepare a competitive bit and set up the airport operating company in the Bahamas (Special Purpose Vehicle). This figure has been estimated based on ALG's recent experience in more than 30 airport concession processes.

Based on the unitary costs set out above, the following chapters present the detailed breakdown of investments in the selected airports throughout the concession period.

5.4 Pre-concession capital expenditures carried out by the MOTA

At the moment of elaboration of this feasibility study, the Bahamian MOTA had triggered some capital expenditures aimed to tackle non compliances with ICAO SARPs in the selected airports. These expenditures are expected to be carried out between end 2016 and early 2017. In those cases when the activities planned by the MOTA in 2016-2017 had already been considered as part of the airports' development plans mentioned in the previous chapter, the associated expenditures have not been considered in the Capex of the concession.

The list below summarizes the activities planned by the MOTA to be carried out I 2016-2017 in the selected airports:

In Marsh Harbour:

- Clearing of tress and vegetation
- Procuring one RFF vehicle
- Procuring tower obstacle lights
- Procuring one airfield windsock
- Procuring one front-end loader tractor
- Carrying out maintenance of runway lights

In Exuma:

- Clearing of tress and vegetation
- Procuring one RFF vehicle
- Procuring one aerodrome beacon light
- Procuring one front-end loader tractor
- Carrying out maintenance of runway lights

In North Eleuthera:

- Clearing of tress and vegetation

- Procuring one RFF vehicle
- Procuring one airfield windsock
- Procuring PAPI lights
- Procuring one aerodrome beacon light
- Procuring one front-end loader tractor

Additionally, the environmental study carried out as part of the feasibility assessment has revealed the need to conduct waste treatment in all selected airports, as well as implementing adequate water manage procedures. These activities are expected to be carried out as part of the ongoing efforts lead by the MOTA to enhance airport management standards in Family Islands. Thus, the costs associated to these activities have not been considered as part of the concession.

5.5 Investment plan per airport

5.5.1 Marsh Harbour Airport

Marsh Harbour Airport requires an overall investment of 16.7 m USD throughout the concession. Almost 35% of the investment is associated with the repaving of the movement area (runway, taxiways and commercial apron). Another 25% (approximately USD 4 million) will be invested in the terminal building and commercial apron expansions, which will be required in the long term.

The remaining capital expenditures are related to the procurement of firefighting equipment (out of the concession scope in the base case scenario), repairs and refurbishments required in the terminal building and the provision of visual aids and security equipment.

The following figure illustrates the share of investments at Marsh Harbour during the concession:

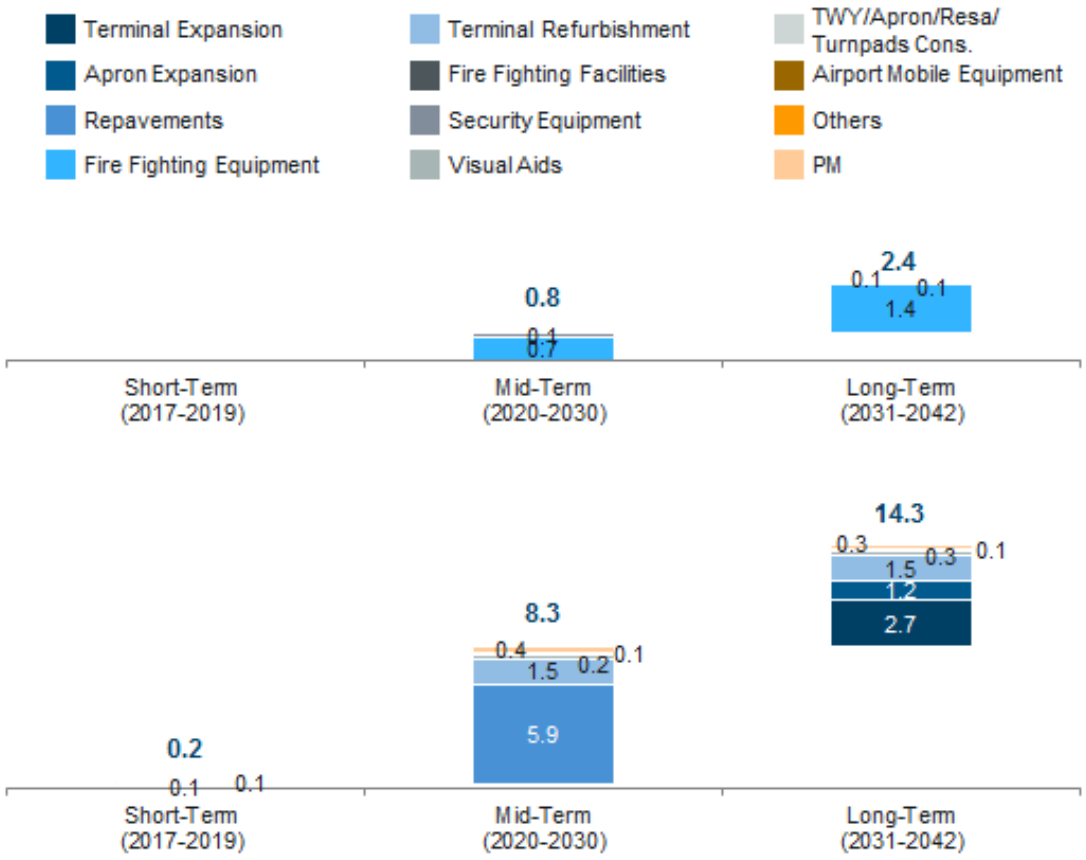


Figure 82: Investment plan at MHH; mUSD (Real 2016)

5.5.2 Exuma Airport

Exuma Airport requires an overall investment of 32.1 m USD throughout the concession. More than 35% of this investment is associated with the landside developments in the short term such as the new terminal building and car parking facilities. The rest of the investments in this period are related to the re-construction of the apron, the building of a new combined service facility and to the provision of firefighting equipment, which should be procured urgently and renewed twice during the concession (out of the scope in the base case scenario).

The airport runway can still endure a 3 to 5 years and be repaved in the mid-term, with no further repaving expected until the end of the concession. Runway repaving has been optimized assuming that only the central portion of the runway will be repaved (20 meters wide). Given that the runway is 45 meters wide; all loads are concentrated on its central portion, leaving the rest of the runway in good state. Repavement of the apron and taxiway will also be required at least once in the mid-term.

Finally, a new runway access taxiway will be required in the mid-term to cope with demand growth.

The following figure illustrates the split of investments at Exuma during the concession:

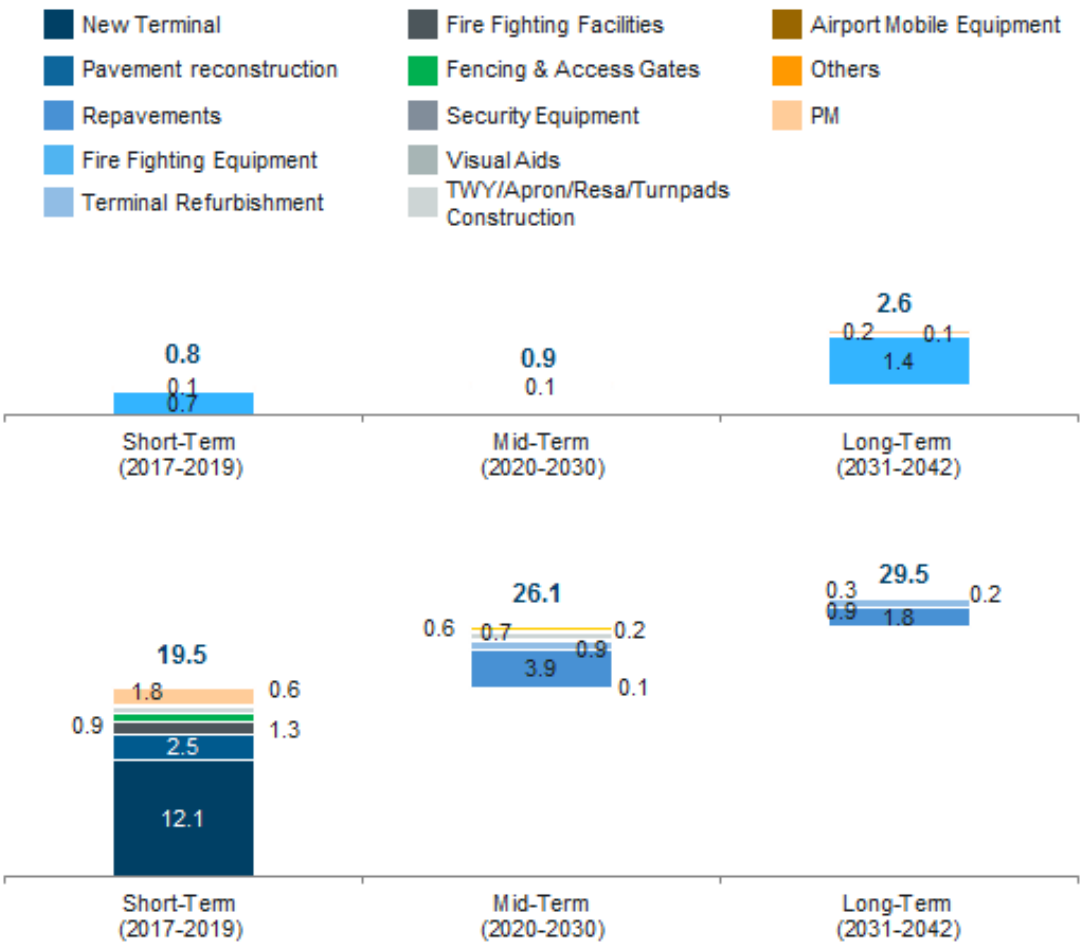


Figure 83: Investment plan at GGT; mUSD (Real 2016)

5.5.3 North Eleuthera Airport

North Eleuthera Airport requires an overall investment of 41.1 m USD throughout the concession. Around 35% of this investment is associated with the relocation of the terminal area and the commercial apron towards the east side. In addition, repaving of the runway is needed in the short term and accounts for 27% of the overall Capex for North Eleuthera. To sum up, short-term investments account for 75% of the total capital expenditures at this airport.

The construction of a partial parallel taxiway in the medium term is the only expansion after the on-going scope of work is executed. Long term investments are mainly recurrent, including full repaving of the airfield by 2038.

The re-location of the FBO to the new terminal area has not been included in the capital expenditures plan and is subject to demand for instrumental operations. Runway extension has also not been included in the Capital expenditures plan, as airlines have not shown interest in flying larger aircraft to the airport, which would not be possible given the current runway length.

The following figure illustrates the split of investments at North Eleuthera during the concession:

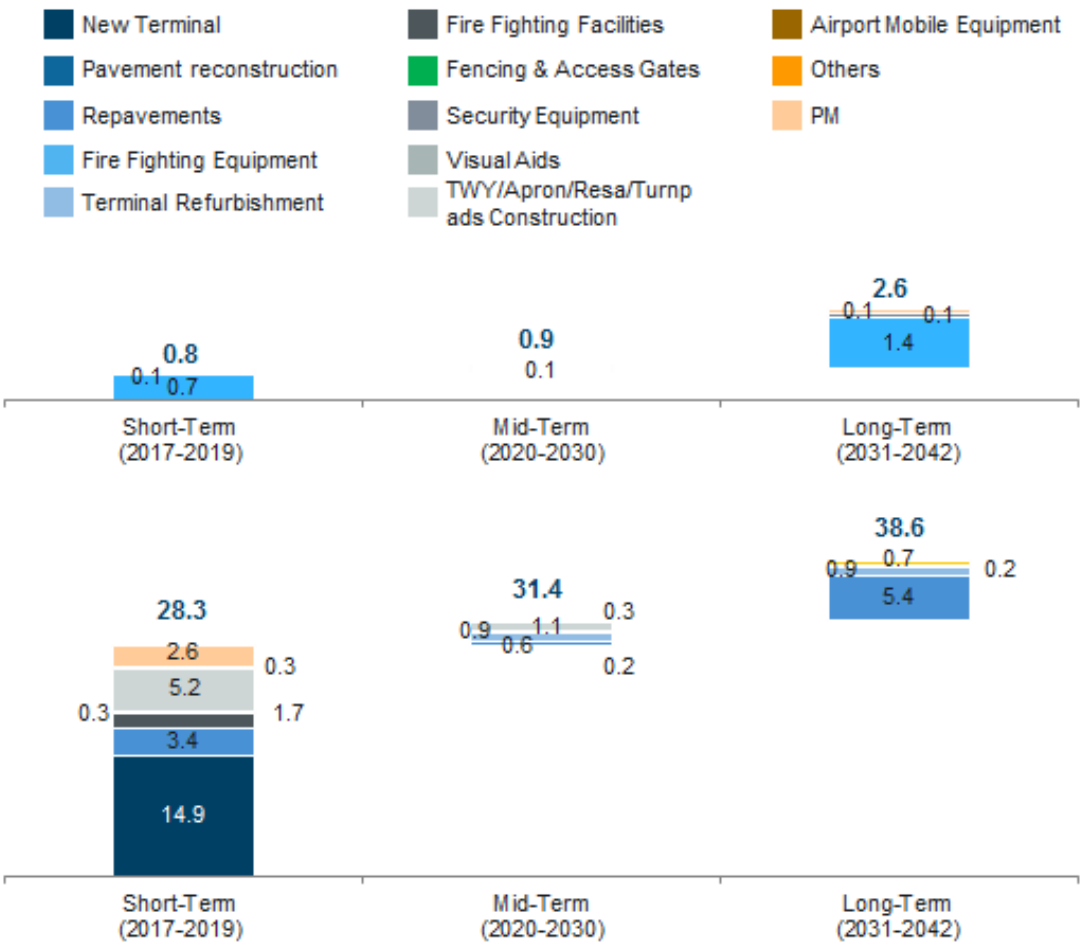


Figure 84: Investment plan at ELH; mUSD (Real 2016)

5.5.4 Treasure Cay Airport

Treasure Cay Airport requires an overall investment of 8.3 m USD throughout the concession. Full runway and apron repavement account for more than half of the investment (4.6 m USD), and will be carried out in the mid-term. No second repaving is expected due to low traffic volumes.

The security fence around the airport boundaries and firefighting appliances account for 12% of the investment. The rest of the capital expenditures will be invested in the provision of visual aids in accordance with ICAO standards. The following figure illustrates the split of investments at Treasure Cay during the concession:

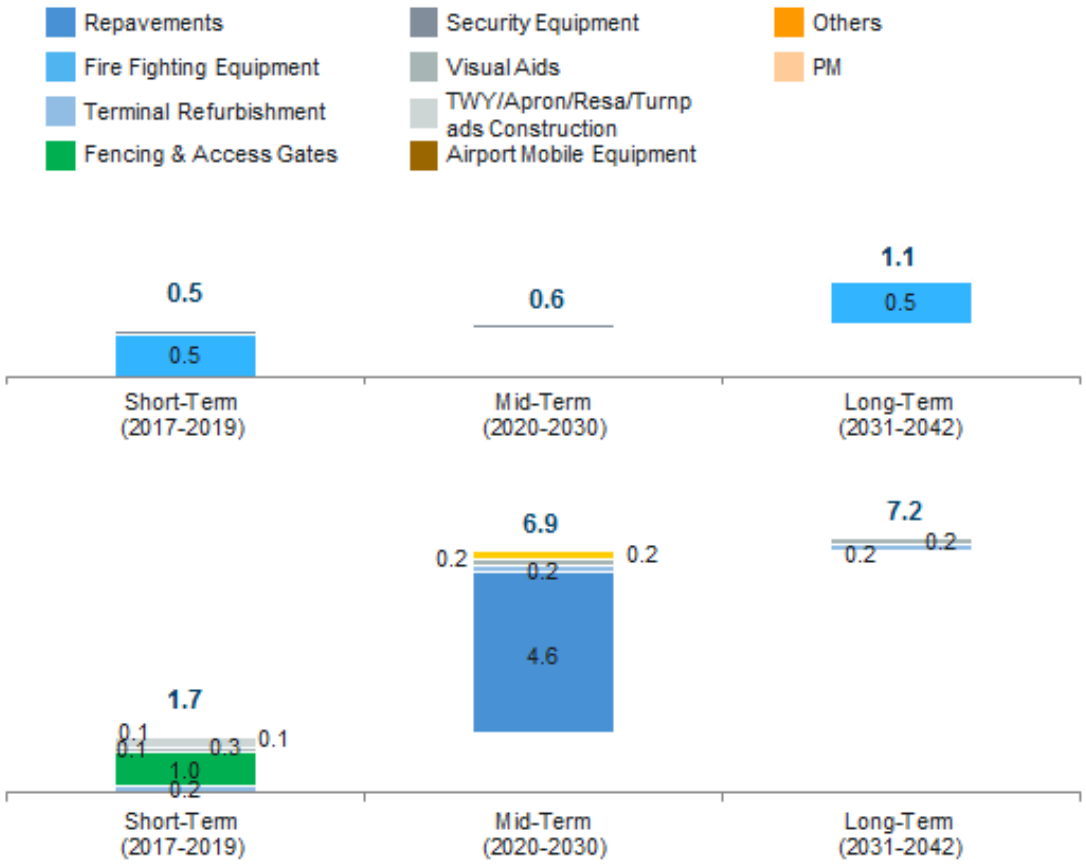


Figure 85: Investment plan at TCB; mUSD (Real 2016)

5.6 Consolidated capital investment plan

Comprehensive investment plan for each one of the airports, together with the initial investment to prepare a competitive bid and set up the airport operating company (2 m USD), are summarized in the following investment plan.

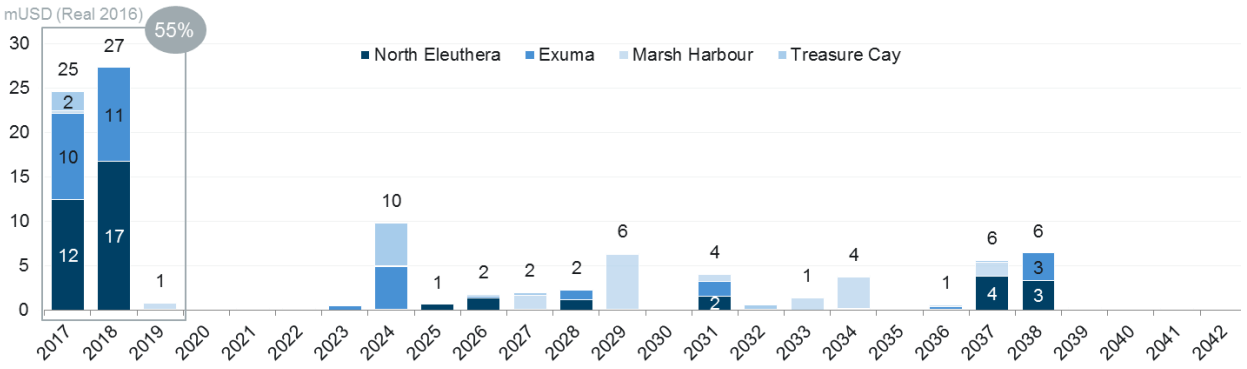


Figure 86: Aggregated investment plan per airport; mUSD (Real 2016)

		Accumulated '17-'18	Accumulated '19-'29	Accumulated '30-'42	Accumulated '17-'42	%
Base case	**Marsh Harbour**	0.2	8.1	6.0	**14.3**	**16%**
	Exuma	19.5	6.6	3.4	**29.5**	**33%**
	North Eleuthera	28.3	3.1	7.2	**38.6**	**43%**
	Treasure Cay	1.7	5.2	0.3	**7.2**	**8%**
	Sub-total	**49.7**	**23.0**	**16.9**	**89.6**	**100%**
Security & RFF	**Marsh Harbour**	0.0	0.8	1.6	**2.4**	**128%**
	Exuma	0.8	0.1	1.7	**2.6**	**30%**
	North Eleuthera	0.8	0.1	1.7	**2.6**	**30%**
	Treasure Cay	0.5	0.1	0.5	**1.1**	**13%**
	Sub-total	**2.1**	**1.1**	**5.5**	**8.7**	**100%**
	TOTAL	**51.8**	**24.1**	**22.4**	**98.3**	

Figure 87: Aggregated investment plan per airport; mUSD real base year 2016

Almost 55% of the global investment of 98.3 mUSD should be carried out in the first two years of the concession. Out of that sum, 8.7 m USD of the total amount are considered as Security and RFF Capex, and will thus be discounted for the base case scenario, as it is out of its concession scope.

Out of the 51.8 mUSD to be spent in the short-term, 52% is allocated to the development of new terminals at GGT and ELH, as it is shown in the following figure:

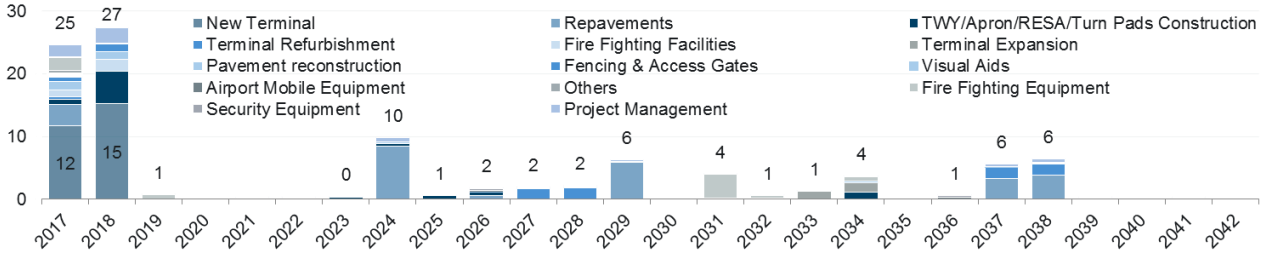


Figure 88: Aggregated investment plan per item; mUSD (Real 2016)

		Accumulated '17-'18	Accumulated '19-'29	Accumulated '30-'42	Accumulated '17-'42	%
Base case	New Terminal	27.0	0.1	0.0	**27.1**	**30%**
	Repaving	19.5	14.8	7.2	**25.3**	**28%**
	TWY/Apron Construction	28.3	1.8	1.2	**9.0**	**10%**
	Terminal Refurbishment	1.7	3.5	3.5	**7.4**	**8%**
	Fire Fighting Facilities	3.0	0.0	0.0	**3.0**	**3%**
	Terminal Expansion	0.0	0.0	2.7	**2.7**	**3%**
	Pavement reconstruction	2.5	0.0	0.0	**2.5**	**3%**
	Fencing & Access Gates	2.1	0.0	0.0	**2.1**	**2%**
	Visual Aids	0.4	0.7	0.8	**2.0**	**2%**
	Airport Mobile Equipment	0.1	0.3	0.3	**0.7**	**1%**
	Others	0.4	0.0	0.0	**70.7**	**0%**
	PM	4.4	1.5	1.3	**7.2**	**8%**
	Sub-total	**49.7**	**23.0**	**16.9**	**89.6**	**100%**
Sec. & RFF	Fire Fighting Equipment	2.0	0.8	5.2	**7.9**	**91%**
	Security Equipment	0.1	0.3	0.3	**0.7**	**9%**
	Sub-total	**2.1**	**1.1**	**5.5**	**8.7**	**100%**
	TOTAL	**51.8**	**24.1**	**22.4**	**98.3**	

Figure 89: Aggregated investment plan per item; mUSD (Real 2016)

The main actions to be taken in the mid and long term are related to repavement activities (21.9 mUSD), passenger terminal refurbishments (7.1 mUSD) and taxiway and apron expansions (3.0 mUSD).

Complementing the consolidated investment plan for the concession of the selected airports, the analysis of funds allocation considering the different sources of investment has been carried out.

First, as specified in the previous chapter, there are items of the capital expenditure plan that the MOTA is planning to tackle in the very short-term. The investment associated to these items is 3.0 mUSD in the selected airports.

Second, the IDB is working on a financial operation to support the Government of Bahamas with a loan aimed to tackle major safety concerns in Family Islands. This operation will finance the relocation of terminal building and apron in North Eleuthera and other compliances-related issues in the short-term, for a value of 33 mUSD.

Third, the future airport Concessionaire is expected to contribute with 16 mUSD to the development of the selected airports in the short-term.

Finally, an additional investment of 2 mUSD is expected to be carried out by the MOTA to upgrade the RFFS in the selected airports, which has been kept out of the concession's investment plan in the base-case scenario.

The table below highlights these sources of finance for each item of the capital expenditure expected in the short-term.

Item	Timeframe	Cost in ´000 USD	Sub-total
Clearing tress and vegetation in MHH, ELH & GGT	Prior to program approval	165	3,0 mUSD
Airfield windsock & aerodrome beacon light & tower in ELH & GGT		155	
PAPI approach lights in ELH		250	
Rescue & firefighting vehicles in MHH, ELH & GGT		2,120	
Front end loader tractor and cutter in MHH; ELH & GGT		180	
Repairs of runway lights in MHH & ELH		100	
Project management for ELH & GGT expansions		N/A	
New terminal building in ELH	After program approval	16,690	33,5 mUSD
Security and firefighting facilities in ELH		1,880	
Runway repavement in ELH		3,690	
New apron and taxiways in ELH		5,440	
Other ICAO compliances in ELH: Drainage well, RESAs, turn pads, markings, apron floodlighting & lighting repairs		600	
ICAO compliances in GGT: RESAs, turn pads, markings, windsock, apron floodlighting, push-back vehicle & jet blast deflector		840	
ICAO compliances in MHH: New aerodrome beacon, obstacle hazard lights & correct runway overlay transition		105	
ICAO compliances in TCB: RESAs, turn pads, markings, windsock, clearing of tress and vegetation, lighting repairs		445	
Security fence in TCB		1,040	
Pavement reconstruction in GGT		2,795	
New terminal building, security fence and firefighting facilities in GGT		15,750	16,2 mUSD
Other developments in the selected airports		425	
Rescue & firefighting vehicles in ELH, GGT & TCB	Out of concession scope in the Base Case Scenario	1,995	2,1 mUSD
X-ray machines in ELH, GGT & TCB		130	

Figure 90: Short-term capital expenditure per source of funds; mUSD (Real 2016)

6 FINANCIAL ASSESSMENT

The financial analysis was performed as part of the integral feasibility assessment. Its main goal is to evaluate the financial feasibility and bankability of a potential transaction and the potential return for the Concessionaire. In order to accomplish this, a financial model was built from the perspective of a PPP operator, with the objectives of structuring a financially-viable project that provides the expected returns for the Concessionaire, and to check the impact of different assumptions on selected output variables.

Traffic is the main driver of the financial model. It is split by terminal passengers and aircraft movements. Revenue streams and operational expenses were forecasted to obtain the project's operational performance through its EBITDA. This, together with investment requirements, generated the funding needs (debt and equity). The financial model - through the Profit and Loss accounts, Balance sheet and Cash flow analysis - provided a different array of elements necessary to assess the financial feasibility of the proposed project.

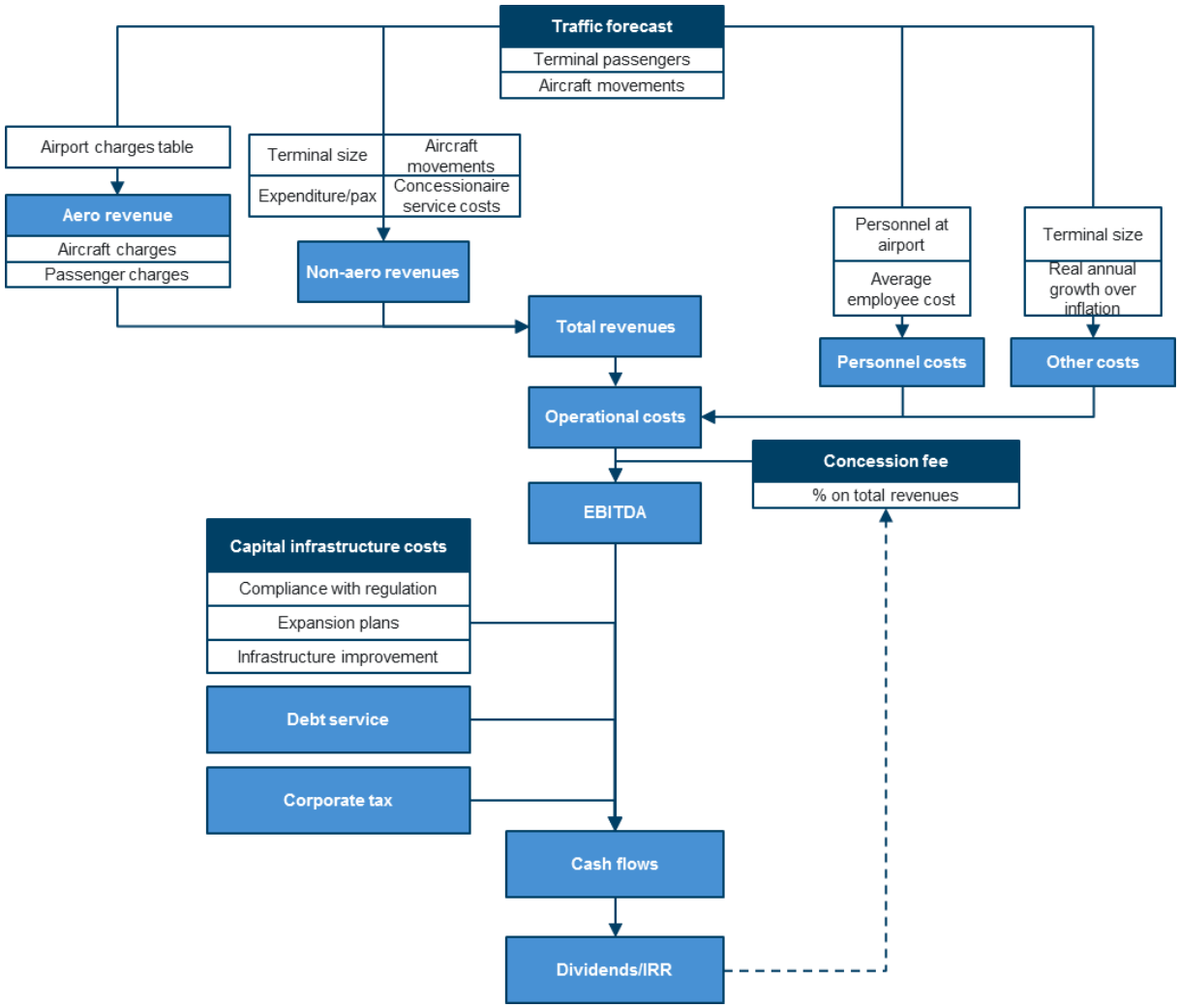


Figure 91: Financial model structure and drivers

As exposed in the previous chapters, the "Base Case" scenario analyzed in this document assumes that RFF and security functions would be excluded from the concession scope. On the other hand, investment requirements are detailed in chapter 5.6. However, a couple of additional scenarios concerning alternative concession scope and additional investment requirements have been evaluated and are presented in the annexes:

- Scenario including RFF and Security
- Scenario additional Capex requirements

It must be stressed that complete historic financial data from the selected airports were not available. The information received was only partial and related to certain accounts and, in general terms, only for some of the selected airports. Therefore, it was not possible to assess the airports' past financial performance.

6.1 Aeronautical Revenues

6.1.1 Current situation

Aeronautical Revenues in the Family Island airports are based on a structure divided between aircraft driven and passenger driven fees and charges.

Aircraft driven

- **Landing fee** based on a fixed charge which varies according to aircraft's MTOW
- **Parking fee** (monthly) varies according to aircraft's MTOW
- **Extra hours fee** for operations outside of airport operational hours
- **Processing fee** charged on arriving international commercial aircraft

Passenger driven

- **Security fee (VAT excluded)** charged to every departing passenger (international and domestic). This fee covers the costs of screening passengers' carry-on and hold baggage and includes additional security charges per flight
- **Departure tax** charged on international departing passengers. Despite it being a tax and not an airport fee or charge, it has been included in the analysis in order to assess the competitiveness of the FI airports compared with their Caribbean peers

In order to estimate the Aeronautical Revenues in the Family Island airports, information of the fees and charges was obtained from different sources:

- visits to the airport sites;
- the AIP of the Bahamas;
- "Landing, parking, tie-down and air navigation (fees and charges) (Government aerodromes) regulations (ch.284)" document.

Bahamas AIP

1. **LANDING OF AIRCRAFT**

1.1 Landing fees at three quarters of the rate prescribed below shall be charged in respect of privately owned aircraft used only for purposes of recreational flying.

1.2 Aircraft other than cargo-carrying aircraft, which land more than once at the aerodrome in any one day shall be charged the full scheduled fee on first landing and one-half of the scheduled fee for any subsequent landing on the same day.

1.3 A single engine aircraft, weighing less than six thousand pounds, privately owned and operated is exempt from payment of landing fees.

1.4 The Director of Civil Aviation may, remit or reduce any of the scheduled fees in the case of persons owning or operating aircraft and having business to transact with him.

Aircraft weight (lbs)	Fee
up to 4,000	$4.00
4,001 - 6,000	$6.00
6,001 - 14,000	$11.00
14,001 - 34,000	$40.00
34,001 - 58,000	$60.00
58,001 and more	$75.00

Airport visit – Rock Sound

ROCK SOUND AIRPORT
LANDING FEE SCALE

PISTON OR TURBO

LBS:	$
1-1,000	
1,001-2,000	1.60
2,001-3,000	2.40
3,001-4,000	4.40
4,001-5,000	4.40
5,001-8,000	6.40
8,001-11,000	7.60
11,001-14,000	9.40
14,000-17,000	11.20
17,001-20,000	12.80
20,001-23,000	14.40
23,001-26,000	16.00
26,001-29,000	24.40
29,001-32,000	26.00
32,001-35,000	27.60
35,001-38,000	28.00
38,001-41,000	29.60
41,001-44,000	30.40
44,001-47,000	31.20
47,001-50,000	32.00
50,001-53,000	32.80
53,001-57,000	33.60
57,001-63,000	36.00
	38.80

JET AIRCRAFT

LBS:	$
1-5,000	19.85
5,001-10,000	27.90
10,001-15,000	35.55
15,001-20,000	43.70
20,001-25,000	52.90
25,001-30,000	60.95
30,001-35,000	67.55
35,001-40,000	72.75
40,301-45,000	79.35
45,001-50,000	83.40
50,001-55,000	87.40
55,001-60,000	88.55
60,001-65,000	92.60
65,001-70,000	95.15
70,001-75,000	99.20
75,001-80,000	100.65
80,001-85,000	104.35
85,001-90,000	107.25
90,001-95,000	108.40
95,001-100,000	112.40
100,001-105,000	119.05
105,001-110,000	123.25
110,001-115,000	128.25
115,001-120,000	134.85
120,001-125,000	140.30
125,001-130,000	146.90
130,001-135,000	152.10
135,001-140,000	158.70
140,001-145,000	162.75
145,001-150,000	167.75
150,001-155,000	174.50
155,001-160,000	180.00
160,001-165,000	186.60
165,001-170,000	191.75
170,001-175,000	198.40
175,001-180,000	202.40

Regulations – ch. 284 - 2008

Landing, parking, tie-down and air navigation (fees and charges) (Government aerodromes) regulations (ch.284) – Commencement 1st October 2005

FIRST SCHEDULE (Regulations 2, 3 & 4)

LANDING FEES

A. Piston Engine Aircraft.

The following landing fee Schedule applies to piston driven aircraft with a maximum allowable takeoff weight (MATW) below and above 12,500 pounds —

Up to 12,500 pounds $3.00 per 1,000 pounds

12,501 pounds and above $3.00 per 1,000 pounds.

B. Turbine and Pure Jet.

The following landing fee applies to turbine and pure jet aircraft with maximum takeoff weight of 12,501 pounds but not exceeding 100,000 pounds —

12,501 pounds – not exceeding - 100,000 pounds..... $3.50 per 1,000 pounds

The following landing fees applies to turbine and pure jet aircraft with maximum takeoff weights of —

100,001 pounds – not exceeding - 800,000 pounds..... $4.00 per 1,000 pounds.

Figure 92: Sources for fees and charges information

The following table summarizes the fees and charges information gathered from the different sources.

	Family Islands Airport Rock Sound (info provided in airport visit) - 2016	Family Islands Airports according to AIP May 2015	Landing, parking, tie-down and air navigation (fees & charges) (Government aerodromes) regulations (ch.284)
Domestic			
Landing fee	26 USD per landing (price for a 26,000 to 29,000 lb MTOW turboprop)	40 USD per landing (price for a 14,000 to 34,000 lb MTOW turboprop)	102 USD per landing (3.5 USD per every 1,000 lb MTOW turboprop)
Parking Fee	Not specified	200 USD per month (price for a 20,000 to 50,000 lb MTOW aircraft)	200 USD per month (price for a 20,000 to 50,000 lb MTOW aircraft)
Security fee	7 USD per departing pax	Not specified	- Screening, passenger and carry-on baggage: 3 USD per person - Screening hold baggage: 50 USD per flight - Security charges: 75 USD per flight (for a 50 seat aircraft) This would add approx. 6.8 USD per departing pax
International			
Landing fee	26 USD per landing (price for a 26,000 to 29,000 lb MTOW turboprop)	40 USD per landing (price for a 14,000 to 34,000 lb MTOW turboprop)	102 USD per landing (3.5 USD per every 1,000 lb MTOW turboprop)
Parking Fee	Not specified	200 USD per month (price for a 20,000 to 50,000 lb MTOW aircraft)	200 USD per month (price for a 20,000 to 50,000 lb MTOW aircraft)
Security fee	7 USD per departing pax	Not specified	Screening, passenger and carry on baggage: 3 USD per person - Screening hold baggage: 50 USD per flight - Security charges: 75 USD per flight (for a 50 seat aircraft) This would add approx. 6.8 USD per departing pax
Processing fee Commercial	150 USD per commercial flight arriving	-	-
International Tax			
Passenger Departure Tax	29 USD per departing pax		

Table 12: Current airport fees and charges

SOURCE: BASED ON AVAILABLE INFORMATION: AIRPORT SITES, THE AIP OF THE BAHAMAS, "LANDING, PARKING, TIE-DOWN AND AIR NAVIGATION (FEES AND CHARGES) (GOVERNMENT AERODROMES) REGULATIONS (CH.284)" DOCUMENT

The analysis of the different sources showed that the information is not always consistent and that revenue collection is an area for improvement in the FI airports. It is assumed that charges described in

the “Landing, parking, tie-down and air navigation (fees and charges) (Government aerodromes) regulations (ch.284)” document will be consistently applied in the Family Island airports in the future.

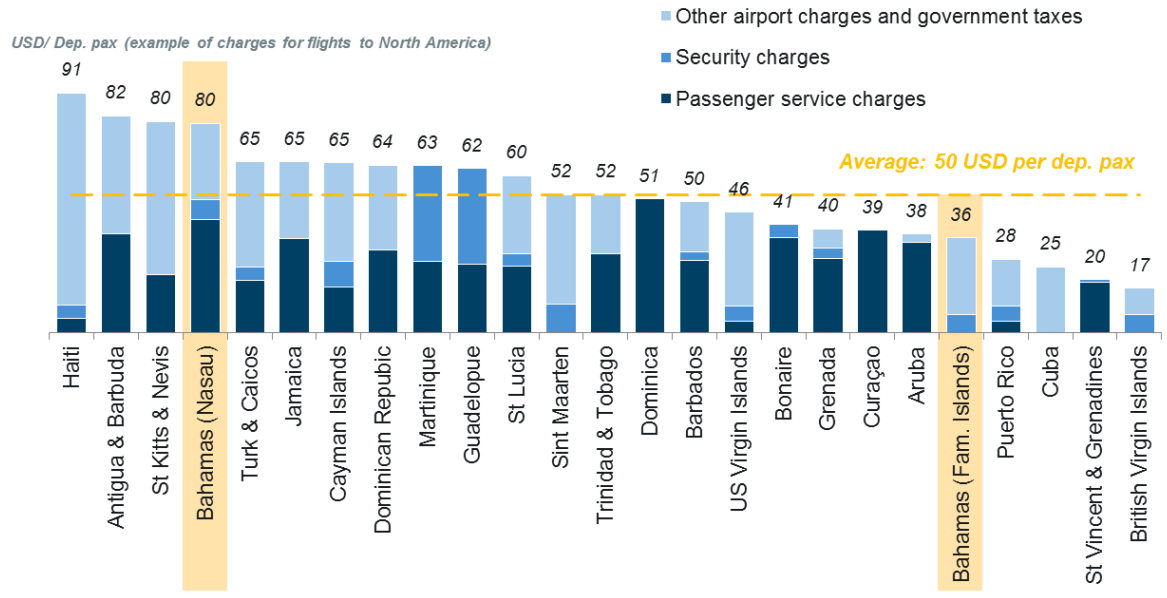
Passenger driven fess, charges and taxes benchmarking

A benchmarking analysis has been conducted for passenger-related fees, charges and taxes.

The Family Islands’ international passenger-related charges and taxes currently amount to a total of 36 USD per departing passenger, of which:

- 7 USD correspond to the security fee and…
- …the remaining 29 USD to the departure tax (VAT included) for each passenger leaving The Bahamas other than by sea.

The benchmarking analysis of Caribbean airports shows limited margin to increase Family Island airports' international passenger-related charges. It is relevant to note that Caribbean airports' passenger charges are high compared to other regions of the world. The average charges and taxes per international departing passenger in the Caribbean region is of approximately 50 USD, that is to say, 14 USD higher than the FI airports (incl. VAT). Given the fact that the Family Island airports are small airports, current levels of charges leave limited room to increase without a risk of affecting traffic demand. The key point is to avoid charge increases that would undermine international traffic growth.



Note: *Passenger related charges included in the air ticket included*

Figure 93: Benchmarking of passenger related charges in Caribbean airports – year 2016; USD per departing international passenger

SOURCE: AIRPORTS, AIRLINES

There is no domestic passenger charge at FI airports, only a security fee of 7 USD per departing passenger is charged. The benchmarking analysis of passenger-related charges for domestic traffic (including several Latin-American and Caribbean airports) shows an average of 10 USD per departing passenger, which leaves limited margin for increasing charges in the FI airports.

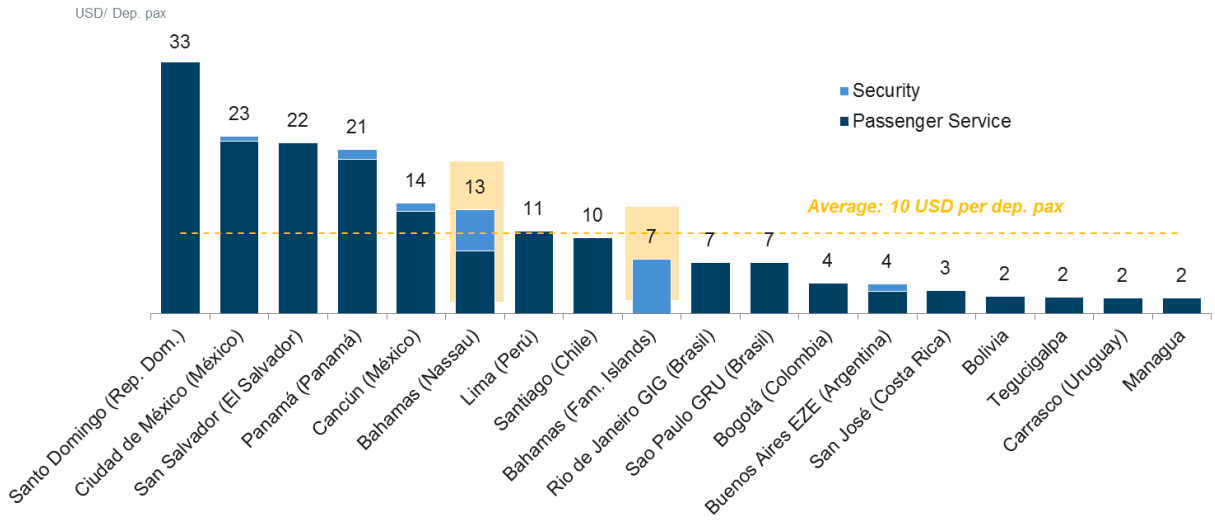


Figure 94: Benchmarking of passenger related charges in Latin-American and Caribbean airports – year 2016; USD per departing domestic passenger

SOURCE: AIRPORTS, AIRLINES, ALTA

In addition, most domestic passengers are international tourists who connect via Nassau and who already pay international charges when they depart from that airport. Furthermore, Family Islands' Airports have a public service condition for Bahamian nationals, and must ensure easy and cheap access to domestic air transport.

6.1.2 Forecast assumptions and proposed Aeronautical fees and charges

It has been assumed that the aeronautical fees and charges structure described in "Landing, parking, tie-down and air navigation (fees & charges) (Government aerodromes) regulations (ch.284)" would be maintained, along with an additional passenger fee that is to be collected by the Concessionaire in order to make the PPP project feasible.

Specifically, in order to make the project economically attractive for a private investor, it has been assumed that the current processing fee for each arriving aircraft (existing in some airports) would be eliminated and a new charge would be implemented in its place. This new charge would be levied on commercial departing passengers (Passenger Facility Charge, or PFC). Based on the feedback obtained from stakeholders during the preparation of the study, it has been assumed that the new PFC would be applied for both domestic and international passengers with a value of:

- 16.5 USD per international departing and
- 8.6 USD per domestic departing passenger.

The following table summarizes the proposed aeronautical fees and charges.

Charge	Concept	Levied on	Dom / Intl	Value (VAT excluded)
Landing fee	Charge paid by aircraft operators to fund operations, maintenance and investments of airfield infrastructure and installations	Per ATM depending on type of operation. aircraft type and MTOW	Domestic & International	Piston Engine: 3 USD per 1,000 lbs. Private flights operated by aircraft with MTOW lower than 6,000 lbs. are exempted of paying landing fees • Turbine and Pure Jet: MTOW from 12,500 to 100,000 lbs.: 3.5 USD per every 1,000 lbs. until 12,500 lbs. • MTOW from 100,001 lbs.: 4 USD per every 1,000 lbs.

Parking Fee	Charge paid by aircraft operators to park aircraft in the apron	Per aircraft staying overnight depending on MTOW	Domestic & International	Applicable to aircraft staying overnight: • 6,000 lbs. or less: 100 USD per month • 6,001 to 10,000 lbs.: 120 USD per month • 10,001 to 20,000 lbs.: 150 USD per month • 20,001 to 50,000 lbs.: 200 USD per month • 50,001 to 100,000 lbs.: 210 USD per month • 100,001 to 200,000 lbs.: 350 USD per month
PFC (Passenger Facility Charge)	Charge paid by passengers for the usage of terminal facilities	Per international departing passenger	International	• 16.5 USD per international departing pax • 8.6 USD per domestic departing pax

Table 13: Aeronautical fees and charges proposed to be collected by the Concessionaire

Finally, it has been assumed that Regulated Aeronautical fees and charges would be updated annually with the average of The Bahamas and US CPIs evolutions.

Based on the charges described and traffic projections, Aeronautical Revenues for each airport have been forecasted. During the analyzed period, Aeronautical Revenues in real terms are expected to grow at a CAGR of 2.7%, with international Aeronautical Revenues showing the highest growth (CAGR of 3.1%), followed by domestic (2.5%) and private (0.7%).

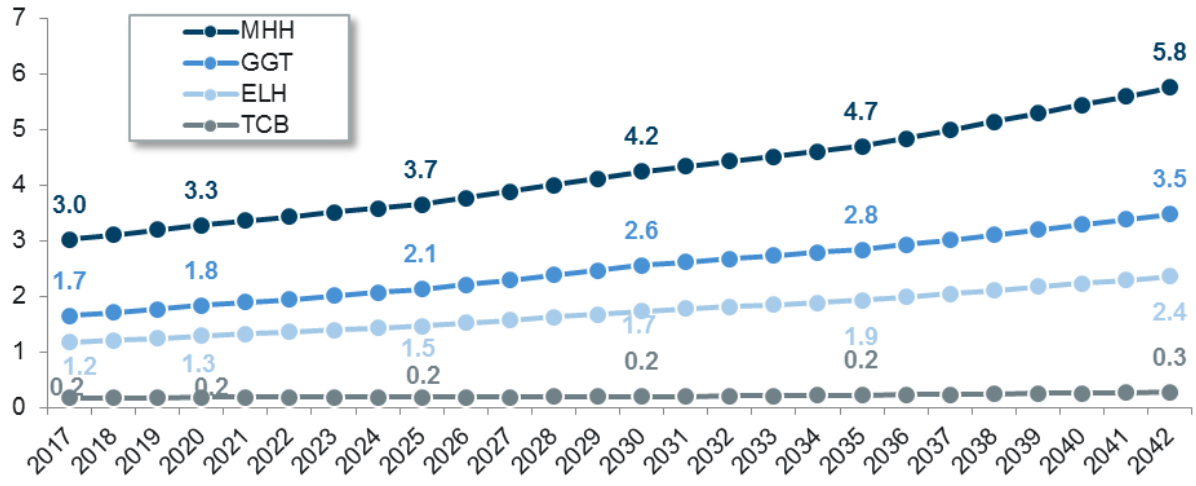


Figure 95: Aeronautical Revenues forecast 2017-2042; mUSD (Real 2016)

Given the charge structure defined and the expected traffic mix, the Concessionaire would be able to collect *c.* 17 USD per departing passenger. Differences in Aeronautical Revenues per departing passenger between the four airports are due to different traffic mix at each airport. Higher average aeronautical revenues per departing passenger are expected in Treasure Cay due to the higher share of international passengers.

Aeronautical Revenues per departing passenger in real terms would slightly decrease during the concession period, mainly because it is assumed that charges will grow at the average of the Bahamian CPI and the US CPI (US CPI forecasted to grow slightly less than Bahamian CPI).

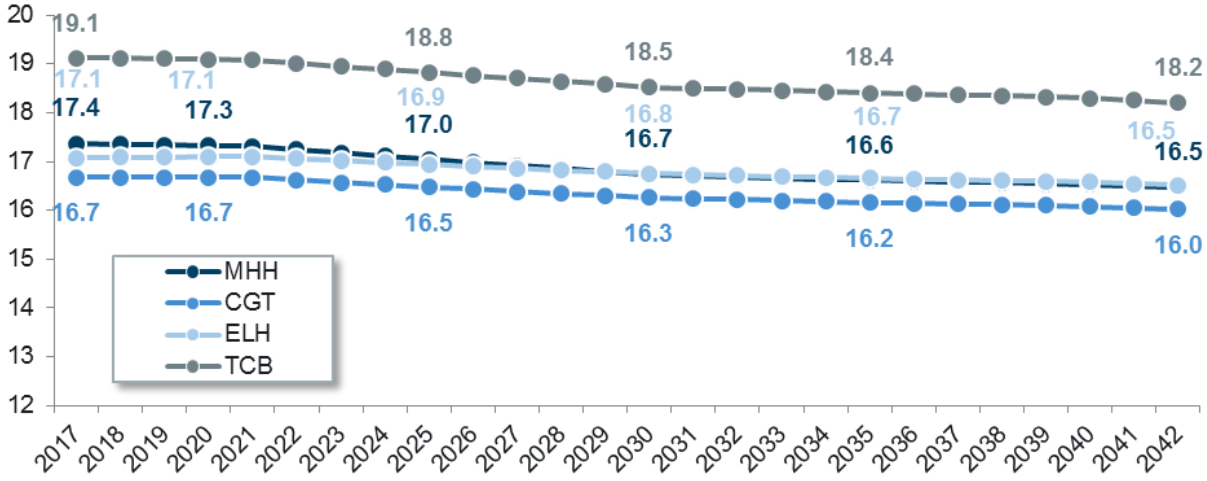


Figure 96: Aeronautical Revenues forecast per departing passenger 2017-2042; USD (Real 2016)

Most of the Aeronautical Revenues for the Concessionaire would be obtained from international passenger fees, whereas parking fees would contribute with only 1% of total Aeronautical Revenues.

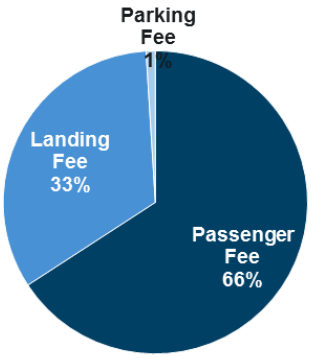


Figure 97: Aeronautical Revenues split for the selected airports – total 2017-2042

It is important to note that it has been assumed that security fee and passenger departure tax would remain outside of the concession scope:

- A security fee per departing passenger would continue to be charged in order to fund RFF & security functions within the airport. Private passengers would be subject to a security fee (subject to legal advice) but they would not be charged with a PFC.
- According to the feedback obtained from stakeholders during the elaboration of the study, The Government of The Bahamas would probably continue to charge international departing passengers based on the "Passenger Tax Act (Ch. 379) " (Amendment to first schedule), on top of the proposed PFC.

6.2 Non-Aeronautical Revenues

6.2.1 Current situation

Estimates for current Non-Aeronautical Revenue figures are obtained from a variety of sources. Partial information was gathered from:

- on-site visits to the airports and;
- the “Landing, parking, tie-down and air navigation (fees and charges) (Government aerodromes) regulations (ch.284)” document.

The following table summarizes the current estimated Non-Aeronautical Revenue stream of each airport.

	Marsh Harbour	Exuma	North Eleuthera	Treasure Cay	Total	*Share %*
Shops	354,907	8,400	3,600	-	366,907	*41%*
Car rental	36,000	-	-	-	36,000	*4%*
Parking	30,397	-	-	-	30,397	*3%*
Advertisement	97,270	-	-	-	97,270	*11%*
Counters	29,400	16,800	25,200	-	71,400	*8%*
Offices	75,347	12,917	9,688	-	97,952	*11%*
Fuel	56,000	-	29,400	6,418	91,818	*10%*
Land-leasing	77,200	20,292	-	668	98,160	*11%*
Total	**756,522**	**58,409**	**67,888**	**7,086**	**889,904**	***100%***
Share %	*85%*	*7%*	*8%*	*1%*	*100%*	

Table 14: Current estimated Non-Aeronautical Revenues by airport and concept - USD

SOURCE: BASED ON AVAILABLE INFORMATION

A reduced mix of Non-Aeronautical businesses is present today at the Family Islands' airports, with Marsh Harbour being the only airport that exploits a wide array of commercial activities. Based on the available information, current Non-Aeronautical Revenues were estimated as follows.

Shops

Revenues were estimated considering surface area (sqm) and a fee per square meter. In the present, Marsh Harbour accommodates 9 operating shops and charges a fixed rental determined by the area occupied by the shop (m^2), plus a 15% royalty over the shop's gross income. Exuma and North Eleuthera airports have different models, only charging a fixed amount per square meter. Treasure Cay has no shops.

	Marsh Harbour	Exuma	North Eleuthera	Treasure Cay
Shops (#)	9	2	1	-
Area (sqm)	156	14	6	-
Revenues from revenue sharing per pax (USD per pax)	0.7	-	-	-
Rental revenues per sqm commercial (USD per sqm)	716	600	600	600

Table 15: Shops revenue assumptions

Offices and counters

Office revenues are based on the area occupied by the offices and a fee per sqm, whereas check-in counter revenues are based on the number of used counters and a fixed monthly fee for each counter. Fees per sqm were obtained from the “Landing fee and Parking fee based on Landing, parking, tie-down and air navigation (fees and charges) (Government aerodromes) regulations (ch.284)” document.

	Marsh Harbour	Exuma	North Eleuthera	Treasure Cay
sqm	140	24	18	-
Revenue per sqm (USD)	538	538	538	538

Table 16: Office revenue assumptions

	Marsh Harbour	Exuma	North Eleuthera	Treasure Cay
Counters (#)	7	4	6	-
Revenue per counter (USD per counter)	4,200	4,200	4,200	4,200

Table 17: Counters' revenue assumptions

Fuel

Revenues were estimated based on a unit rate per gallon of 0.07 USD based on the "Landing fee and Parking fee based on "Landing, parking, tie-down and air navigation (fees and charges) (Government aerodromes) regulations (ch.284)" document and the amount of gallons was obtained through on-site interviews with airport management.

	Marsh Harbour	Exuma	North Eleuthera	Treasure Cay
Gallons ('000)	800	-	420	92

Table 18: Fuel revenue assumptions

Land leases

Revenues for Exuma, North Eleuthera and Treasure Cay airports were estimated based on the fees listed in the "Landing, parking, tie-down and air navigation (fees and charges) (Government aerodromes) regulations (ch.284)" document. Revenues for Marsh Harbour were obtained through on-site interviews with the airport's management.

	Marsh Harbour	Exuma	North Eleuthera	Treasure Cay
sqm	65,307	22,800	20,250	750
Total revenues (USD)	77,200	20,292	-	668
Revenues per sqm (USD per sqm)	1.18	0.89	-	0.89

Table 19: Land leases revenue assumptions

Other commercial revenues

Other revenues include car parking, car rentals and advertising. These revenues were obtained through on-site interviews with airport management and from documents made available for Marsh Harbour Airport. Revenues were estimated on a *per passenger* basis.

	Marsh Harbour	Exuma	North Eleuthera	Treasure Cay
Car Rental (USD)	36,000	-	-	-
Parking revenues (USD)	27,000	-	-	-
Parking revenues per pax (USD per pax)	0.09	-	-	-
Advertisement total revenues (USD)	86,400	-	-	-
Advertisement revenues per pax (USD per pax)	0.28	-	-	-

Table 20: Others revenue assumptions

6.2.2 Forecast assumptions and proposed Non-Aeronautical Revenues

Unit Non-Aeronautical Revenues for the first year of the concession (2017) have been set in alignment with current revenues and those established in regulations. It is assumed that the airport operator would generate an average of 2.6 USD per departing passenger:

- USD in MHH, 0.6 in GGT, 1.3 USD in ELH and 0.8 USD in TCB.

		Unit	Marsh Harbour	Exuma	North Eleuthera	Treasure Cay
Shops		USD/sqm.	716	600	600	-
		USD /pax	0.7	-	-	-
Counters		USD /counter	4,200	4,200	4,200	-
Offices		USD /sqm	538	538	538	-
Fuel		USD /gallon	0.07	-	0.07	0.07
Land-leasing & FBO		USD /sqm.	1.18	0.89*	0.89	0.89
Others	**Car rental**	USD	36,000	-	-	-
	Parking	USD/pax	0.088	-	-	-
	Advertising	USD/pax	0.280	-	-	-
Total Non-Aeron. Revenues			**767**	**58**	**86**	**7**
Non-Aeron. Revenues/Dep. Pax.			4.4	0.6	1.3	0.8

Note: Revenues from FBO in Exuma are not considered once terminal is expanded in 2019

Table 21: Non-Aeronautical Fees and Unit rates assumptions - 2017; USD (Real 2016)

Once the terminal expansions in Exuma and North Eleuthera enter into service, the following assumptions would be added:

- FBO-related revenues in Exuma are not considered once the passenger terminal is expanded (2019), as it is considered that the FBO would build and maintain its own terminal and apron.
- Car parking revenues are considered in Exuma and North Eleuthera, assuming the same revenues per passenger as the current ones in Marsh Harbour, once the new terminals are opened (as terminal expansion will also include the building of car parking facilities).

		Driver	Marsh Harbour	Exuma	North Eleuthera	Treasure Cay
Land-leasing & FBO		USD/sqm.	1.18	-	0.89	0.89
Others	**Parking**	USD/pax	0.088	0.088*	0.088*	-

Note: Parking opened in GGT and ELH

Table 22: Changes in Non-Aeronautical fees and unit rates 2019; USD (Real 2016)

From the first year onwards, the following assumptions are used for Non-aeronautical revenue projections:

- An annual growth of all Non-aeronautical fees and unit revenues of 0.5% above CPI (including those that are currently fixed by law: fuel, land-lease, counters and offices) is assumed.
- The number of counters on each airport is assumed to grow with a positive elasticity of 20% to the increase traffic.
- Refuelling volume for the airports is assumed to grow in the same proportion as ATMs.

Non-Aeronautical Revenues were forecasted based on the previously described fees and unit rates. During the analyzed period, these revenues are expected to grow at a CAGR of 2.8%.

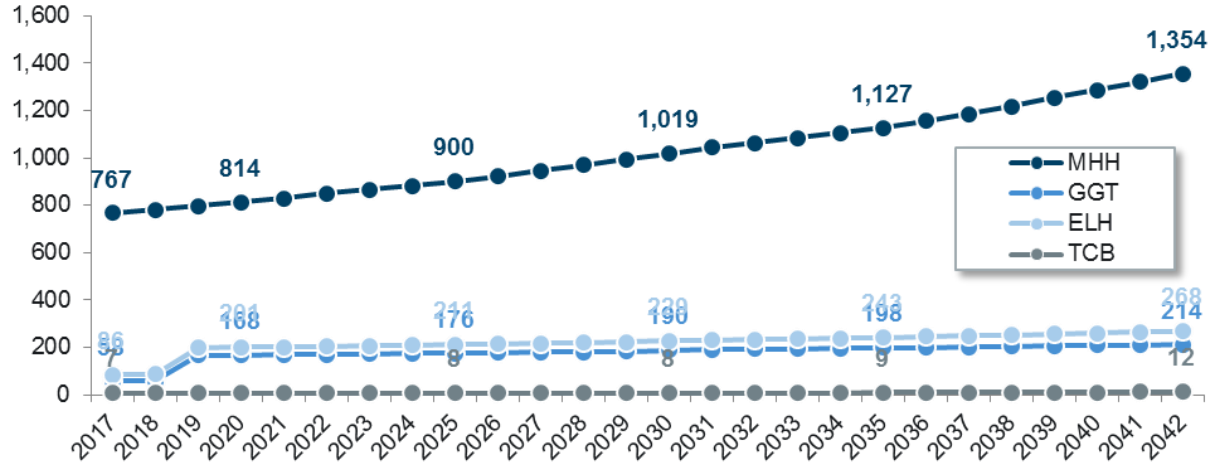


Figure 98: Non-Aeronautical Revenues forecast 2017-2042: kUSD (Real 2016)

Given the assumptions described and the expected traffic, the Concessionaire would be able to collect: *c.* 4.3 USD per departing passenger in MHH, 2.7 USD per departing passenger in ELH and 1.5 USD per departing passenger in GGT in 2020. Non-Aeronautical Revenues per pax tend to decrease along the concessions period, as some revenue streams do not benefit from traffic growth (*i.e.* offices or land). Significant increases in North Eleuthera and Exuma are expected in 2019 when new terminals are opened, as additional Non-Aeronautical Revenues (car parking) will be generated, which allow increasing some of the existing streams (more space for offices, shops,…). However, in the case of Exuma, the effect of the new terminal opening is expected to be partially offset by the loss of revenues from the FBO, as it is assumed that it will build its own terminal and apron and will not pay the airport operator in order to compensate for its investment.

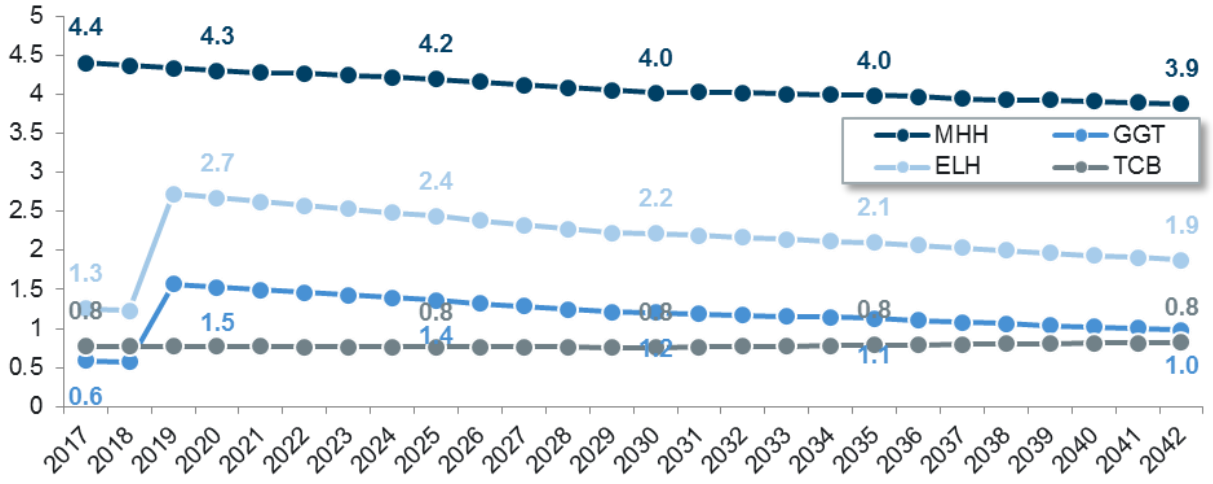


Figure 99: Non-Aeronautical Revenues forecast per departing passenger 2017-2042: USD (Real 2016)

The main sources of Non-Aeronautical Revenues are shops, which account for almost half of the total revenues.

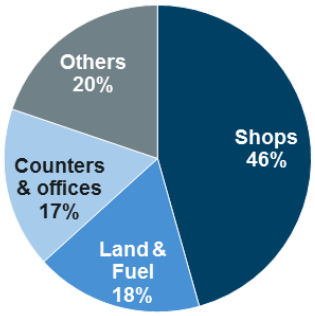
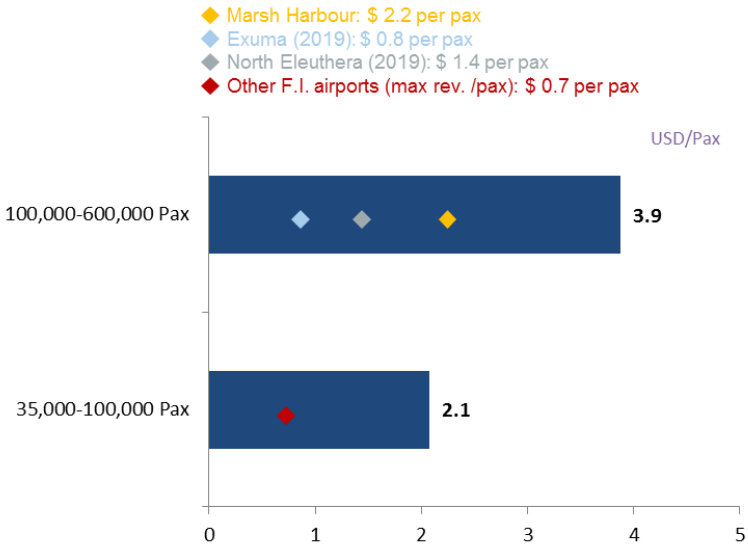


Figure 100: Non -Aeronautical Revenues composition for selected airports. 2017-2042

It could be expected that, in the context of a competitive bidding process, private operators would be able to improve Non-Aeronautical Revenue projections using their expertise. This would assume that private operators are allowed to change the current business model for Non-Aeronautical Revenues and to renegotiate contracts with third parties once these contracts finalize. The construction of a new terminal in Exuma and North Eleuthera offers the Concessionaire a mid-term opportunity to improve the existing layout and commercial strategy. Furthermore, the Concessionaire could also be able to use the terminal redevelopment to better plan the commercial services offered in the terminal, and to exploit revenue sources that are not taken into account today, such as car parking, car rental and advertising.

A benchmarking analysis of Non-Aeronautical Revenues per passenger in airports with similar traffic levels shows that only Marsh Harbour airport is trying to maximize its commercial income, as it is obtaining revenue levels that are aligned with international benchmarks. All other airports are currently below benchmarking values and are not generating income from some of their businesses.



Note: Benchmarking of 42 airports from USA, Europe and LAC with traffic volumes similar to those from Family Islands

Figure 101: Benchmarking of total Non-Aeronautical Revenues per passenger

6.3 Operating expenses

6.3.1 Current situation

There are two major categories in terms of operating expenses: staff-related expenses (including wages, salaries and benefits), and non-staff costs. Information of operating expenses was obtained through:

- on-site interviews with airport management,
- documents received for certain utilities receipts and
- current CAD budget for Family Island airports.

Opex breakdown	Stakeholders	Data Sources
Staff	CAD Local Government	• Number of current staff and salaries in each airport obtained from interviews during airports visits: headcount estimated at 76 employees for the selected airports
Utilities	CAD Ministry of Finance Ministry of Works Local Government Others	• Available data from interviews during airport and certain electricity and water bills received
Maintenance & Supplies and operational expenses		• Current budget of 3.5 mUSD per annum by CAD for all the Family Islands airports • Budget allocated by Ministry of Finance, Ministry of Works or others not known
Overhead & Others		

Table 23: Current operating expenses stakeholders and information sources

It can be observed that current operating expenses are assumed by a range of stakeholders and that consolidated data at airport level is not available.

Staff

Headcount is estimated at a total of 76 employees for the selected airports in 2016. The current headcount should be increased in order to ensure that the airport is maintained and operated appropriately, and ensure compliance with RFF and security ICAO standards.

	Marsh Harbour	Exuma	North Eleuthera	Treasure Cay	Salaries (USD)
Airport Manager	1	1	1	1	45,000
Middle Managers	1	1	-	-	35,000
Administration	-	-	-	-	18,000
Operations	2	-	-	-	20,000
Maintenance	-	3	-	1	20,000
Janitors	5	2	2	-	14,000
Sub-total	**9**	**7**	**3**	**2**	**21**
Fire Fighters	8	7	2	4	20,000
Security	9	14	6	5	18,000
Total	**26**	**28**	**11**	**11**	**76**

Table 24: Current Staff – Headcount and average salary

SOURCE: INTERVIEWS AIRPORT MANAGEMENT

Non-staff

The following table summarizes non-staff related Operating expenses data available.

			MHH	GGT	ELH	TCB
Utilities	Electricity	*Amount (USD)*	**365,423**	9,219	603	N/A
		Period	*Total 2015*	*Half 2015*	*3 months 2015*	
	Water	*Amount (USD)*	**1,648**	**1,848**	N/A	N/A
		Period	*3 months 2016*	*9 months 2015 + 3 months 2016*		
	Diesel	*Amount (USD)*	**6,477**	N/A	**2,185**	N/A
		Period	*2 months 2015 + non complete 2016 months*		*5 months 2015*	
	Phone, cable & Internet	*Amount (USD)*	N/A	**750**	N/A	N/A
		Period		*1 month 2015 phone 5 months 2015 cable*		
Maintenance, repairs & supplies		*Amount (USD)*	13,470	10,948	8,160	2,575
		Period	*Several bills corresponding to 2015 and 2016, but not exhaustive*			
Staff	Security Assistant	*Amount (USD)*	413,750	307,550	95,600	116,550
		Period	*2015*	*2015*	*2015*	*2015*
	Fireman	*Amount (USD)*	109,500	198,000	49,500	85,950
		Period	*2015*	*2015*	*2015*	*2015*
	Management	*Amount (USD)*	95,000	0	0	0
		Period	*2015*	*2015*	*2015*	*2015*

Table 25: Current non-staff expenses data summary

SOURCE: CAD

The historical non-staff cost data available for the selected airports proved to be inconsistent and did not reflect the usual cost levels associated to the airport management, operations and the maintenance of the facilities. Operating costs for the Concessionaire were therefore estimated, as historical data did not reflect expected operating expense values.

6.3.2 Forecast assumptions and proposed Opex

A substantial increase in operating expenses is assumed in order to provide an appropriate Level of Service at the airports. Security and RFF operating expenses are not included in the analysis, as these functions have been excluded of the concession scope in the base case scenario, and will not be included in the concession financial figures.

Staff costs

The number of Full Time Employees (FTEs) has been estimated so as to ensure an adequate level of operations and to guarantee that all ICAO standards are met. Therefore, the resulting headcount is higher than current.

	Basic Salaries (USD)	Marsh Harbour	Exuma	North Eleuthera	Treasure Cay
Airport Mgt.	45,000	1	1	1	1
Middle Mgt.	35,000	2	0	0	0
Admin.	20,000	2	1	1	1
Operations	23,000	5	4	3	2
Maintenance	23,000	5	3	2	1

Janitors	16,000	5	2	2	1
Total FTEs		**20**	**11**	**9**	**6**
Total Salaries (USD)		**569,250**	**297,152**	**240,247**	**172,500**

Table 26: Headcount by airport and salaries by position – year 2017; USD (Real 2016)

Staff expenses are assumed to be 20% higher than Basic Salaries in order to take into account additional expenses (taxes, training, allowances, overtime and others). Moreover, it has been assumed that 5 FTEs will be needed at headquarters office.

	Basic Salaries (USD)	Headquarters Staff required
Airport Mgt.	90,000	1
Middle Mgt.	60,000	2
Admin.	20,000	1
Operations& Maintenance	50,000	1
Total FTEs		**5**
Total Salaries (USD)		**336,000**

Table 27: Headquarters staff and salaries – year 2017; USD (Real 2016)

Staff costs projections are based on the following assumptions:

- FTE's throughout the analyzed period were increased using elasticities to the traffic forecast, increase in terminal area and increase in airfield area.
- Salaries are assumed to increase 0.5% above Bahamas CPI.

	Elasticity to Traffic	Elasticity to Terminal Area	Elasticity to Airfield Area
Airport Manager	0%	0%	0%
Middle Mng.	0%	0%	0%
Administration	30%	0%	0%
Operations	30%	25%	0%
Maintenance	30%	30%	35%
Janitors	30%	30%	0%
Fire Fighters	10%	0%	0%
Security	30%	20%	0%
Salaries increase	+0.5% above CPI		

Table 28: Staff projection assumptions

Non-staff

Utilities costs have been estimated based on data collected from on-site interviews with airport management for Marsh Harbour and North Eleuthera airports. Electricity and water bills were also taken into account.

	Marsh Harbour	Exuma	North Eleuthera	Treasure Cay
Electricity (USD)	371,919	31,225	31,456	8,632
Water (USD)	7,000	2,643	1,950	600
Diesel (USD)	30,000	7,342	6,001	1,600
Telephone, Cable TV & Internet (USD)	41,800	4,626	3,413	2,700
Total Utilities (USD)	**450,719**	**45,836**	**42,820**	**13,532**
Utilities/Pax. (USD/pax.)	**1.3**	**0.2**	**0.3**	**0.7**

Table 29: Utilities assumption – year 2017; USD (Real 2016)

It should be noted that utilities' expenses in Marsh Harbour are much higher in the present than those in the other airports due to the size and characteristics of its terminal. Therefore, a significant increase of utilities' expenses is expected in 2019 at Exuma and North Eleuthera airports due to the entry into service of new passenger terminals.

	Marsh Harbour	Exuma	North Eleuthera	Treasure Cay
Electricity (USD)	410,777	128,879	98,617	9,512
Water (USD)	7,159	5,153	4,507	605
Diesel (USD)	30,680	7,551	6,150	1,613
Telephone, Cable TV & Internet (USD)	42,747	9,017	7,887	2,722
Total Utilities(USD)	**491,363**	**150,600**	**117,161**	**14,451**
Utilities/Pax. (USD/pax.)	**1.3**	**0.7**	**0.8**	**0.8**

Table 30: Utilities assumption – year 2019; USD (Real 2016)

Utilities costs projections are based on an elasticity model to traffic and floor area increases, with the following assumptions.

	Elasticity to Traffic	Elasticity to Terminal Area	Elasticity to Airfield Area
Electricity	40%	40%	20%
Water	40%	40%	0%
Diesel	40%	0%	0%
Telephone, cable TV & Internet	40%	40%	0%

Table 31: Utilities assumption - Elasticities

Initial electricity consumption at Marsh Harbour was estimated using available information for 2015 (3.4 kWh per passenger). For Exuma and North Eleuthera airports, an electricity expense of 30,000 USD is assumed for 2016. When passenger terminals are expanded, an increased consumption of 1.8 kWh per passenger is assumed for Exuma and of 2.0 kWh per passenger for North Eleuthera. For Treasure Cay, a

flat consumption of 1.5 kWh per passenger is assumed for the entire concession period. Additionally, a minimum consumption per passenger of 2.5 kWh per passenger at Marsh Harbour and of 1.25 kWh per passenger at Exuma and North Eleuthera airports has been assumed.

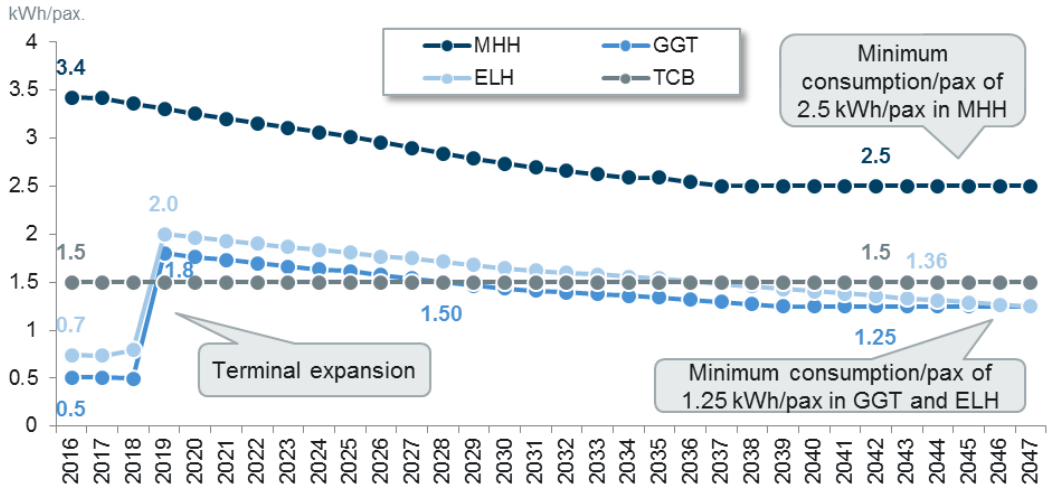


Figure 102: Electricity consumption per pax evolution – 2016-2042; kWh/pax

The electricity tariff for 2016 is set at 0.30 USD/kWh based on available information for Marsh Harbour airport and it is assumed that an initial increase in electricity rates will reach 0.35 USD/kWh by 2020 in order to be aligned with historical values. From 2020 on, the electricity price is expected to grow at a rate of 0.25% above Bahamas CPI.

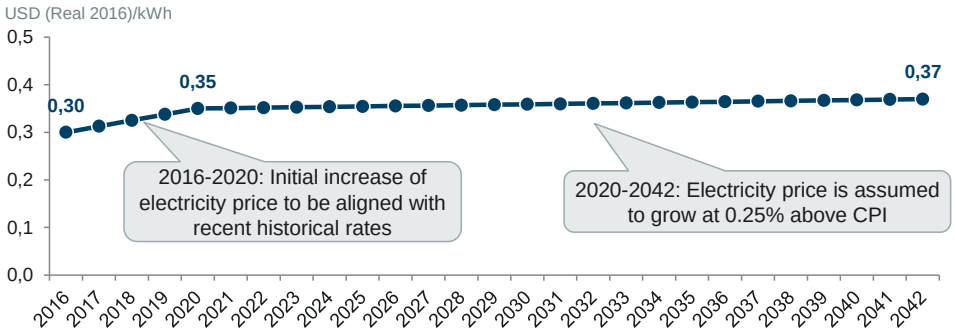


Figure 103: Electricity price evolution – 2016-2042; USD (Real 2016)/kWh

Maintenance and Overheads costs were estimated based on costs at similar airports. Overhead expenses include: insurance, TSA, revenue collection costs and other expenses.

		Marsh Harbour	Exuma	North Eleuthera	Treasure Cay
Maintenance & Supplies (USD)		450,000	272,550	195,137	70,000
Overheads	**Insurance & Others**	Estimated insurance costs +10% over Total Opex			
	TSA	+3% of EBITDA (minimum of 350,000 USD for the 4 airports)			
	Collection Cost	+Revenue Collection Cost of 2.0% over Aero. revenues			

Total Maint. & Supplies (USD)	**382,500**	**231,667**	**165,866**	**59,500**
Maint. &Supplies/pax. (USD/pax)	**1.1**	**1.2**	**1.2**	**3.2**
Total Overheads (USD)	**702,945**	**334,518**	**293,017**	**94,771**
Overheads/pax. (USD/pax)	**2.0**	**1.7**	**2.1**	**5.2**

Table 32: Maintenance and Overheads assumptions – year 2017 USD (Real 2016)

It can be noted that expenses in Marsh Harbour are higher than those in the other airports. This is due to the size and characteristics of its terminal. A considerable increase in maintenance, supplies and overhead expenses is expected at Exuma and North Eleuthera airports due to the opening of new passenger terminals in 2019.

		Marsh Harbour	Exuma	North Eleuthera	Treasure Cay
Maintenance & Supplies (USD)		457,639	390,636	355,123	70,425
Overheads	**Insurance**	Estimated insurance costs +10% over Total Opex			
	TSA	+3% of EBITDA (minimum of 350,000 USD for the 4 airports)			
	Others	+Revenue Collection Cost of 1.5% over Aero. revenues			
Total Maint. & Supplies (USD)		**388,993**	**332,040**	**301,855**	**59,861**
Maint. &Supplies/pax. (USD/pax)		**1.0**	**1.6**	**2.1**	**3.2**
Total Overheads (USD)		**713,731**	**461,503**	**429,601**	**94,958**
Overheads/pax. (USD/pax)		**1.9**	**2.2**	**2.9**	**5.1**

Table 33: Maintenance and Overheads assumptions– year 2019 USD (Real 2016)

The projections for maintenance, supplies and insurance costs are estimated using an elasticity model according to the following assumptions.

	Elasticity to Traffic	Elasticity to Terminal Area	Elasticity to Airfield Area
Maintenance & Supplies	30%	25%	25%
Insurance	10%	100%	0%

Table 34: Maintenance, supplies and insurance assumptions - Elasticities

Based on the previously described expenses' assumptions, the forecasted operational expenses are shown in the graph below.

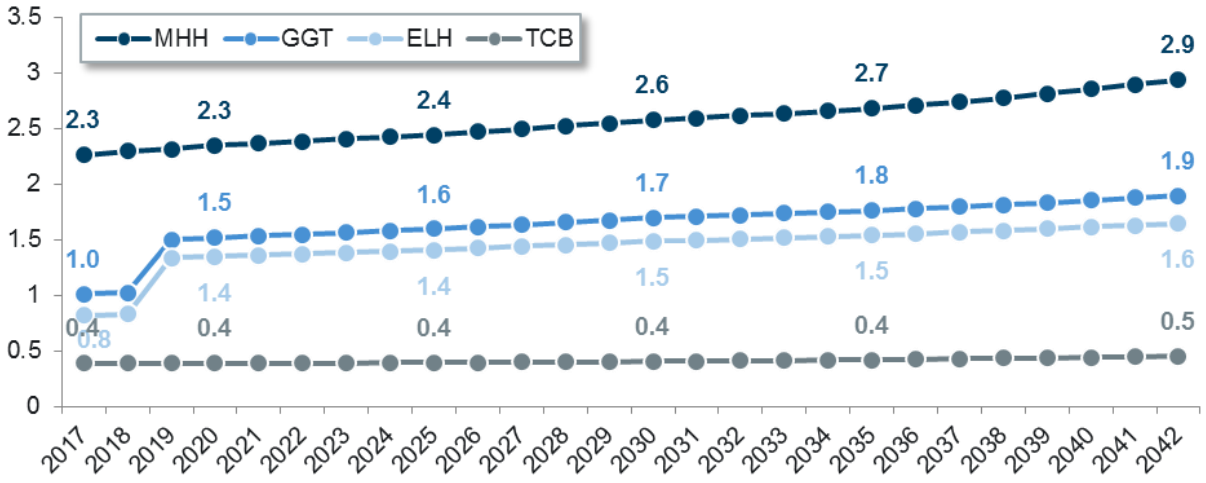


Figure 104: Operating expenses forecast 2017-2042: mUSD (Real 2016)

Given the assumptions described and the expected traffic the Opex for the Concessionaire would represent 12.4 USD per departing passenger in MHH, 13.8 USD per departing passenger in GGT and 17.9 USD per departing passenger in ELH in 2020.

There are significant Opex increases in Exuma and North Eleuthera when the terminals are expanded (2019) as several relevant expenses are driven by the terminal floor area. The Opex per passenger will tend to decrease throughout the concession period once the terminal expansions are completed driven by efficiencies and economies of scale in costs when passenger traffic grows.

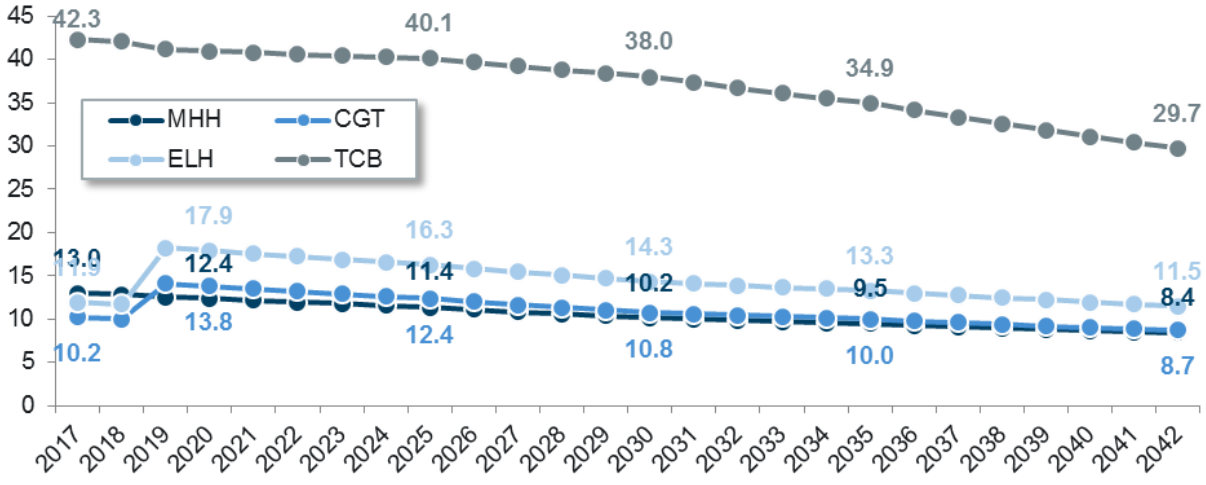


Figure 105: Operating expenses forecast per departing passenger 2017-2042: USD (Real 2016)

Staff expenses represent 36% of total operating expenses throughout the analysed period. The second largest cost stream is overheads, which accounts for 30% of the costs.

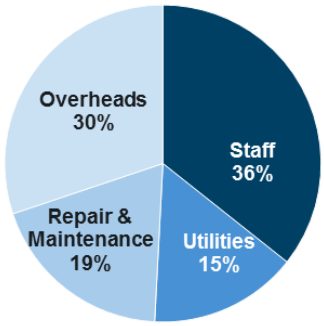
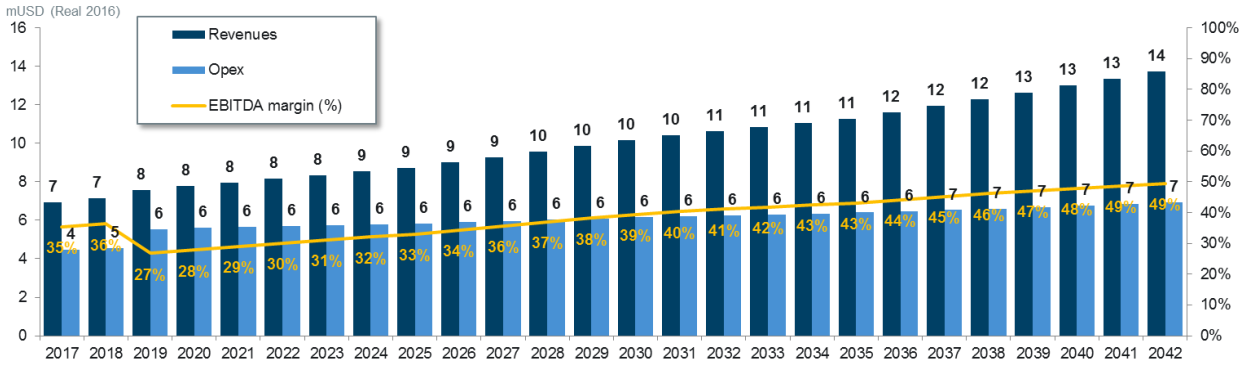


Figure 106: Operating expenses total composition for selected airports 2017-2042

There is room for achieving cost improvement at the selected airports. Taking into account the experience of potential Concessionaires in the context of a bidding process, private operators may be able to improve the above listed assumptions.

6.4 EBITDA forecast

The following figure summarizes the financial performance forecast for the four selected airports throughout the concession period.



Note: Revenues and costs related to RFF and Security are not included; EBITDA margin decreases in 2019 because of GGT and ELH terminal expansions entry into service (Opex increase)

Figure 107: Revenues, Opex and EBITDA margin evolution, 4 selected airports – 2017-2042; mUSD (Real 2016)

The EBITDA margin will start at 35.4% in 2017 and is expected to reach 49.5% by 2042. The reduction in EBITDA margin in 2019 is due to the additional operating expenses incurred when the new terminals at Exuma and North Eleuthera enter into service.

	2017	2018	2019	2020	2030	2040	CAGR '17-'22	CAGR '22-'32	CAGR '32-'42	CAGR '17-'32	CAGR '17-'42
EBITDA	**2,457**	**2,595**	**2,031**	**2,167**	**4,018**	**6,231**	**0.0%**	**5.9%**	**4.5%**	**3.9%**	**4.1%**
EBITDA margin (%)	*35.4%*	*36.3%*	*26.9%*	*27.9%*	*39.5%*	*47.9%*	-	-	-	-	-
Total Revenues	**6,942**	**7,141**	**7,560**	**7,770**	**10,179**	**12,995**	**3.3%**	**2.7%**	**2.6%**	**2.9%**	**2.8%**
Total Aeronautical	6,024	6,206	6,390	6,580	8,733	11,227	2.8%	2.8%	2.7%	2.8%	2.7%
Total Non-Aeronautical	918	935	1,171	1,190	1,446	1,768	6.1%	2.0%	2.1%	3.3%	2.8%
Total Opex	**4,486**	**4,546**	**5,529**	**5,603**	**6,161**	**6,764**	**4.9%**	**0.9%**	**1.0%**	**2.2%**	**1.8%**

Table 35: Selected airports EBITDA forecast 2017-2042; kUSD (Real 2016)

6.5 Financial assumptions

The following financial assumptions were made to complete the financial model projections.

CPI

Bahamian CPI has been assumed as the average of different sources from 2016 to 2021 and from 2022 it has been fixed at a flat CPI of 3.0%.

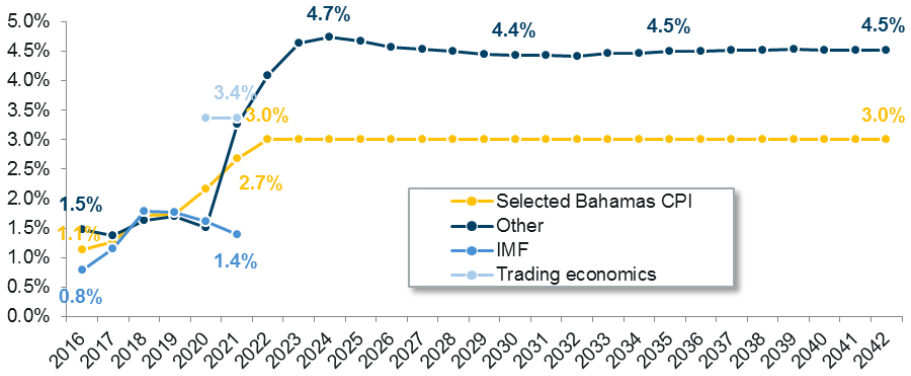


Figure 108: Bahamas CPI forecast: 2016-2042

In the case of US, a flat CPI of 2.4% has been assumed as from 2022.

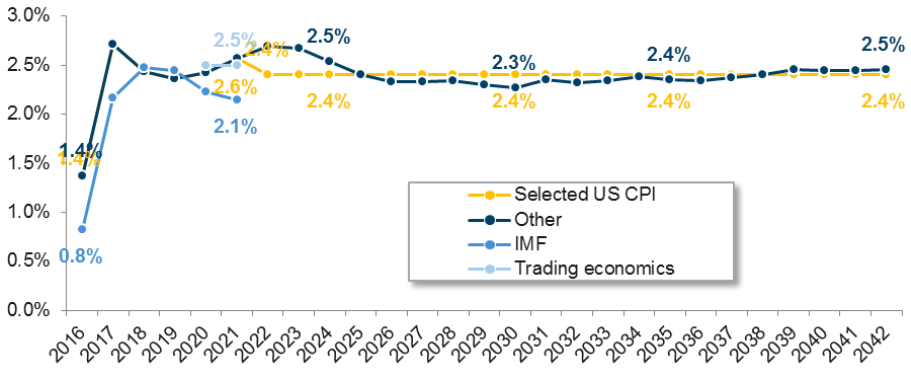


Figure 109: US CPI forecast 2016-2042

VAT

The VAT rate applied is of 7.5%. This tax is not a revenue nor a cost for the Concessionaire, but has a financial impact when the amount paid is greater than the amount charged. VAT is assumed to be charged to 100% of the Aeronautical and Non-Aeronautical Revenues and paid over the total capital expenditures and non-staff operating expenses. When the paid VAT is greater than the charged VAT, a net payment is generated by the Concessionaire and it is recovered in the following years (or before, if it is refunded directly by the State). The tax to be compensated for in the future is accounted as a current asset entitled “VAT Tax Credit”. Normally, the companies can easily finance “net VAT payments” using a “VAT credit Line”. In this way, the only financial impact of VAT on the results of the model is the total interests paid by the credit Line. In the financial forecast, the effect of VAT results in an additional financing cost of 1.4m USD.

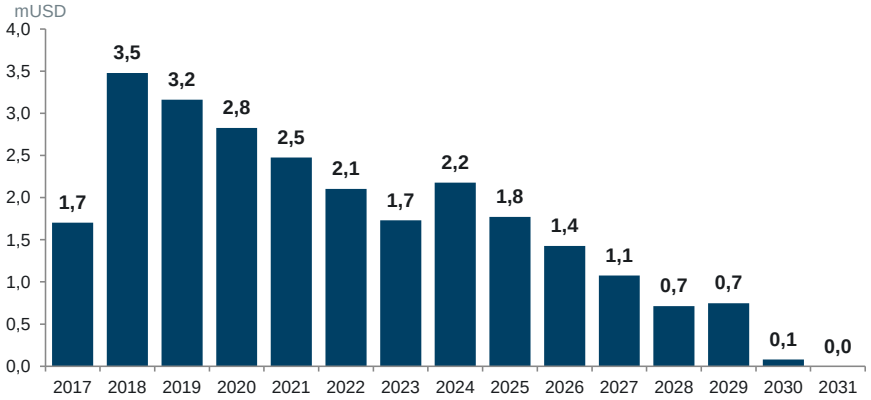


Figure 110: VAT Tax credit 2017-2030; mUSD (Nominal)

Depreciation

The model does not take into account the airports' current assets that are not fully depreciated. New capital expenditures are depreciated according to the duration of the concession period (25 years) as they are treated as intangible assets.

Government grant

Government grants are not usually included in the calculations of the Free Cash Flows, because they are considered as a funding source that has zero costs (as they are not expected to be repaid by the recipient). Nevertheless, the objective of this analysis is to evaluate the Project from the perspective of a private investor. For a private investor, the effect of Government grants may be considered as a reduced capital expenditure or as an income received from the Government to carry out the Project. For this reason, Government grants are included in the Free Cash Flow in order to properly evaluate the Project. If the Government grants were not to be included in the Free Cash Flow analysis, they cannot be evaluated. Government grants are received and amortized according to the duration of the concession period (25 years).

Debt, interests and fees

It is assumed that 65% of the funding needs will be covered by debt.

	Debt	Common Stock
Set Up Costs	0%	100%
Regulatory Capex	65%	35%
Investment Capex	65%	35%
Recurrent Capex	65%	35%
Maintenance Capex	65%	35%
Others	65%	35%
Contingencies	65%	35%

Figure 111: Debt and equity

Annual interest rate is assumed at 6.5% with an additional structuring fee of 1% (upfront payment) and an annual agency fee of 20.000 USD. Senior debt covenants include a “Debt Service Reserve Account” of 50% of the annual debt service and a dividend payout constraint over the first three years of the

concession. Finally, amortization of debt is assumed to be a maximum of 15 years with no grace period on principal repayment. Additional debt drawdowns are assumed at the same interest rate with a maximum amortization period of 15 years being the last year of Debt repayment in 2040.

Equity injections

It is assumed that 35% of the funding needs will be covered by equity injections.

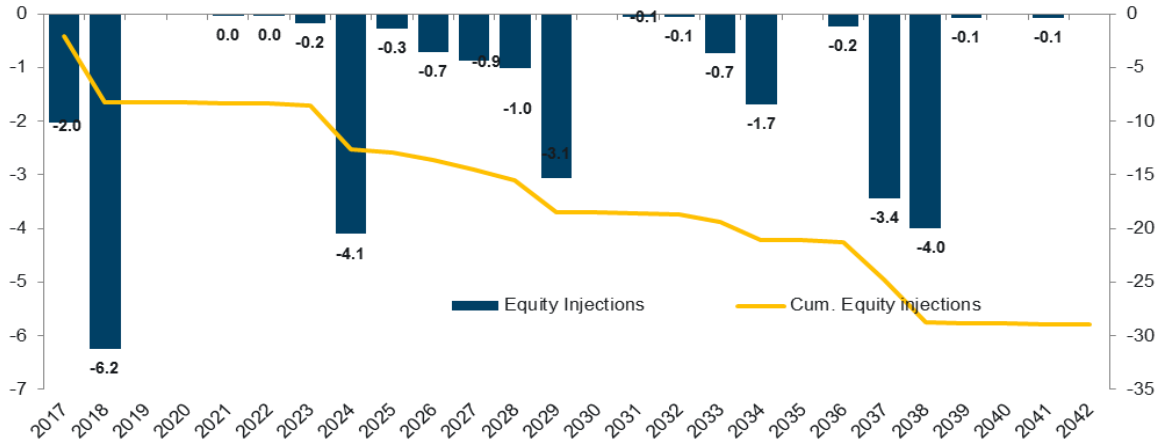


Figure 112: Equity Injections– 2017-2042; mUSD (Nominal)

Performance bond

A Performance Bond of 5m USD with a yearly cost of 1.5% is assumed.

Set up cost

2 mUSD of set-up and Bid process has been assumed for the Concessionaire.

Weighted Average Cost of Capital (WACC)

The following table shows the rates used to calculate the Weighted Average Cost of Capital (WACC) in order to discount the cash flows to obtain their Net Present Value (NVP).

Cost of equity considered according to industry data is of 14.44%

Ke = Rf + CRP + βe*(Rm – Rf)

Rf	**5.23%**	Damodaran: T-Bonds 10Y average 1928-2015)
Country risk premium (CRP)	**2.84%**	Damodaran: Country Default Spreads and Risk Premiums (Jan 2016)
βe (unlevered)	**0.559**	Damodaran: Air Transport. Beta Global (Jan 2016)
Rm - Rf	**6.18%**	Damodaran: Risk premium average 1928-2015

Table 36: Cost of Equity calculation

The WACC considered is 10.81% according to the following assumption.

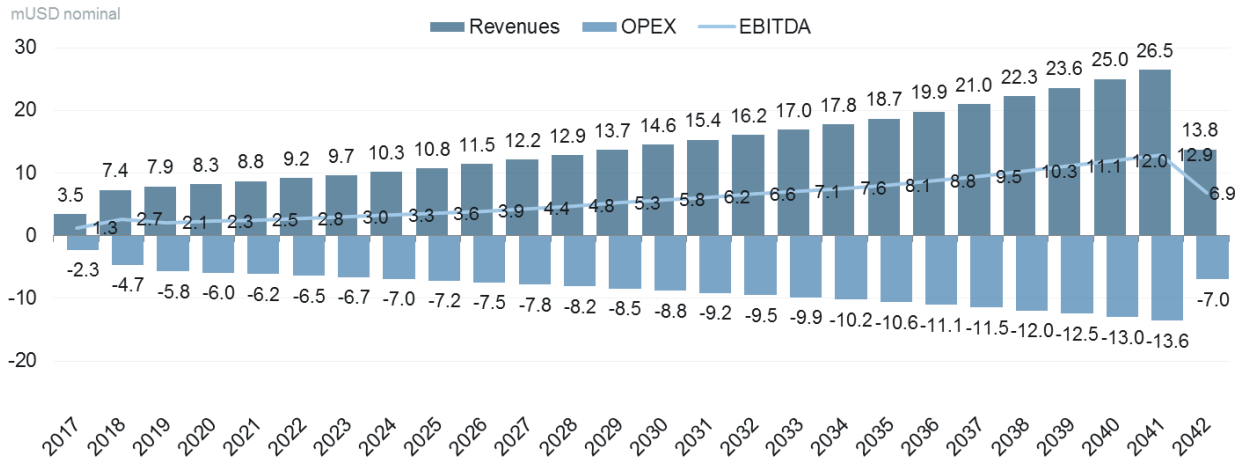
WACC = Ke*E/(E+D) + Kd*(1-t)*D/(E+D)

Ke	**14.44%**	Cost of equity
Kd	**6.5%**	Cost of debt without including tax. CBoB official discount rate 4.5% Spread of 2%
D/E	**84.5%**	Damodaran: Air Transport. Beta Global D/E (160 firms) (Jan 2016)
t (Tax rate)	**0%**	No tax

Table 37: WACC calculation

6.6 Financial results

The operation of the selected airports is expected to provide 38.7% of average EBITDA margin throughout the period, evolving from 2.7 mUSD (in nominal terms) to 12.9 mUSD in the next 25 years.



Note: Revenues and costs related to RFF and Security are not included; EBITDA margin decreases in 2019 because of GGT and ELH terminal expansions entry into service (Opex increase)

Figure 113: Revenues, Opex and EBITDA margin of the project. 2017-2042; mUSD (Nominal)

Following figures and tables show the three financial model output variables in nominal kUSD: Profit and loss account, Balance Sheet and Cash flow.

The forecasted **Profit & Loss** shows operating margins are expected to grow gradually after 2019, once the expected developments in Exuma and North Eleuthera airports are completed. The new terminal facilities in those airports are expected to enhance commercial revenues as well as require higher operating costs after entry into service.

Profit & Loss	TOTAL	2017	2018	2019	2020	2030	2040
Commercial revenues							
Total Aeronautical Revenues	324,761	3,075	6,392	6,695	7,044	12,524	21,639
Total Non-Aeronautical Revenues	53,421	469	963	1,227	1,274	2,074	3,407
Total commercial revenues	**378,181**	**3,544**	**7,355**	**7,922**	**8,318**	**14,598**	**25,046**
Operational expenses							
Staff	-79,449	-852	-1,733	-2,089	-2,152	-3,146	-4,582
Utilities	-34,259	-282	-598	-811	-864	-1,343	-2,136
Overheads	-67,126	-728	-1,481	-1,780	-1,834	-2,658	-3,858
Repair & Maintenance	-42,495	-428	-870	-1,114	-1,148	-1,690	-2,460
Total operational expenses	**-223,330**	**-2,290**	**-4,682**	**-5,793**	**-5,998**	**-8,836**	**-13,037**
EBITDA	**154,851**	**1,254**	**2,673**	**2,128**	**2,319**	**5,762**	**12,009**
Annual Depreciation & Amortization	-111,816	-993	-2,138	-2,138	-2,138	-3,980	-9,301
Government Grants Income	33,000	912	1,329	1,329	1,329	1,329	1,329
EBIT	**76,035**	**1,173**	**1,863**	**1,318**	**1,510**	**3,110**	**4,037**
Financial Expenses	-24,175	-93	-747	-1,029	-975	-1,389	-390
Debt Interests & Fees	-24,175	-93	-747	-1,029	-975	-1,389	-390
Financial Income	18	0	0	0	0	1	2
Interest on Deposits	18	0	0	0	0	1	2
Financial Result	**-24,158**	**-93**	**-747**	**-1,029**	**-975**	**-1,388**	**-388**
Profit before taxes	**51,878**	**1,080**	**1,116**	**289**	**535**	**1,722**	**3,649**
Corporate Tax	0	0	0	0	0	0	0
Profit after taxes	**51,878**	**1,080**	**1,116**	**289**	**535**	**1,722**	**3,649**

Note: It is assumed that concession would start mid 2017

Table 38: Selected airports Profit and Loss forecast 2017-2040; kUSD (Nominal)

The forecasted **balance sheet** only considers assets, liabilities and equity generated during the analyzed period. The maximum level of debt reaches 20.9 mUSD in 2029. The total capital injected by shareholders reaches 28.9 mUSD by 2041.

Balance sheet		2017	2018	2019	2020	2030	2040
Assets							
Current Assets		**3,286**	**6,683**	**7,075**	**7,579**	**9,327**	**21,834**
Debtors Balance		867	907	977	1,025	1,800	3,088
Stock & Inventory Balance		105	107	137	142	208	303
VAT Tax Credit		1,704	3,477	3,161	2,826	80	0
Debt Service Reserve Account, DSRA		0	257	620	619	1,704	4,414
Cash		611	1,935	2,180	2,967	5,535	14,029
Non-Current Assets		**23,835**	**49,747**	**47,608**	**45,470**	**45,256**	**13,402**
Fixed Assets		23,835	49,747	47,608	45,470	45,256	13,402
Total assets		**27,121**	**56,430**	**54,683**	**53,049**	**54,583**	**35,236**
Net equity & liabilities							
Net equity		**24,995**	**41,229**	**40,190**	**39,396**	**35,073**	**34,005**
Capital and Reserves		**3,105**	**10,470**	**10,759**	**11,294**	**20,255**	**32,473**
Called Up Share Capital		2,025	8,274	8,274	8,274	18,533	28,824
Reserves		0	1,080	2,196	2,485	0	0
Profit / (Loss) of the Year		1,080	1,116	289	535	1,722	3,649
Valuation Adjustments		**21,890**	**30,759**	**29,431**	**28,102**	**14,817**	**1,532**
Government Grants Remaining		21,890	30,759	29,431	28,102	14,817	1,532
Liabilities		**2,125**	**15,200**	**14,493**	**13,653**	**19,511**	**1,231**
Non-Current Liabilities		**1,704**	**14,766**	**13,950**	**13,090**	**18,680**	**0**
Debt		1,704	14,766	13,950	13,090	18,680	0
Current Liabilities		**421**	**435**	**543**	**563**	**831**	**1,231**
Creditors Balance		352	364	457	474	702	1,042
Other Current Liabilities Balance		69	71	86	88	129	188

Table 39: Selected airports Balance sheet forecast 2017-2040; kUSD (Nominal)

The level of debt of the Concessionaire is directly related with the investment outflows during the concession period, Government grant inflow, internally generated flows from operations, debt payments and specific debt ratios the financial entity would require as a condition for financing the project. Between 2037 and 2038, Debt levels are increased due to an investment of 5 mUSD and 6 mUSD respectively (mainly due to vehicle renovation and terminal refurbishment in Exuma and North Eleuthera).

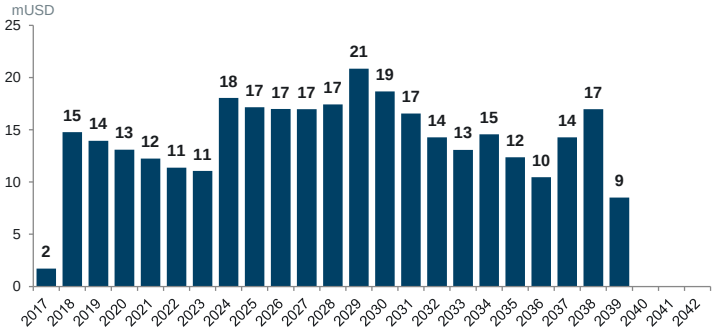


Figure 114: Debt principal – 2017-2042; mUSD (Nominal)

The **cash flow** to equity is different to those available to shareholders due to the effect of the cash that is "trapped" (not all cash generated in a period is distributed in the same period to shareholders), mainly attributed to dividend pay-out constraint on the first 3 years of the concession, given debt covenant and annual depreciation and amortization of the fixed assets throughout the concession.

Cash flow	Total	2017	2018	2019	2020	2030	2040
Operating cash flow							
Revenues	378,181	3,544	7,355	7,922	8,318	14,598	25,046
Operational Costs	-223,330	-2,290	-4,682	-5,793	-5,998	-8,836	-13,037
EBITDA	**154,851**	**1,254**	**2,673**	**2,128**	**2,319**	**5,762**	**12,009**
Operating interest received	18	0	0	0	0	1	2
Capex expenditure	-111,816	-24,828	-28,050	0	0	0	0
Working capital movement	-2,445	-550	-29	8	-33	-80	-133
Government Grants Disposals	33,000	22,803	10,197	0	0	0	0
Project Cash Flows before taxes	**73,608**	**-1,321**	**-15,209**	**2,136**	**2,287**	**5,682**	**11,878**
Tax Payments	0	-1,704	-1,773	316	335	668	0
Project Cash Flows after taxes	**73,608**	**-3,026**	**-16,982**	**2,453**	**2,622**	**6,351**	**11,878**
Financing cash flow							
Cash Flows Available to Debt	**73,608**	**-3,026**	**-16,982**	**2,453**	**2,622**	**6,351**	**11,878**
Debt Disposals	53,728	1,704	13,378	0	0	0	0
DSRA Change	0	0	-257	-363	0	-242	326
Debt Principal Repayment	-53,728	0	-316	-815	-860	-2,177	-8,512
Interest & Bank Fees	-24,175	-93	-747	-1,029	-975	-1,389	-390
Debt Cash Flows	**-24,175**	**1,611**	**12,058**	**-2,207**	**-1,835**	**-3,808**	**-8,576**
Cash Flows Available to Shareholders	**49,433**	**-1,415**	**-4,925**	**245**	**787**	**2,543**	**3,302**
Equity cash flow							
Common Stock. Increases (+) / Decreases (-)	28,902	2,025	6,249	0	0	0	0
Dividends paid	-49,033	0	0	0	0	-1,202	-2,227
Equity Cash Flows	**-20,131**	**2,025**	**6,249**	**0**	**0**	**-1,202**	**-2,227**
Net cash flow in the period		**611**	**1,324**	**245**	**787**	**1,341**	**1,075**

Note: It is assumed that concession would start mid 2017

Table 40: Selected airports Cash flow forecast 2017-2040; kUSD (Nominal)

The project cash flow is adjusted with annual reviews of working capital and operational financial income. The cash flow throughout the period remains mainly positive. Apart from the initial cash-out period, only those years with major recurrent investment reduce the cash flow to negative figures.

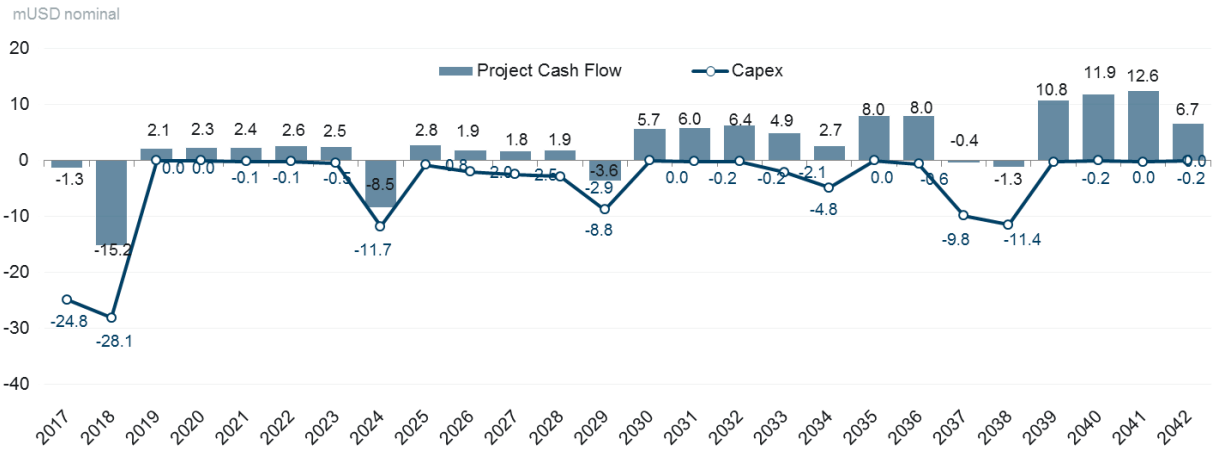
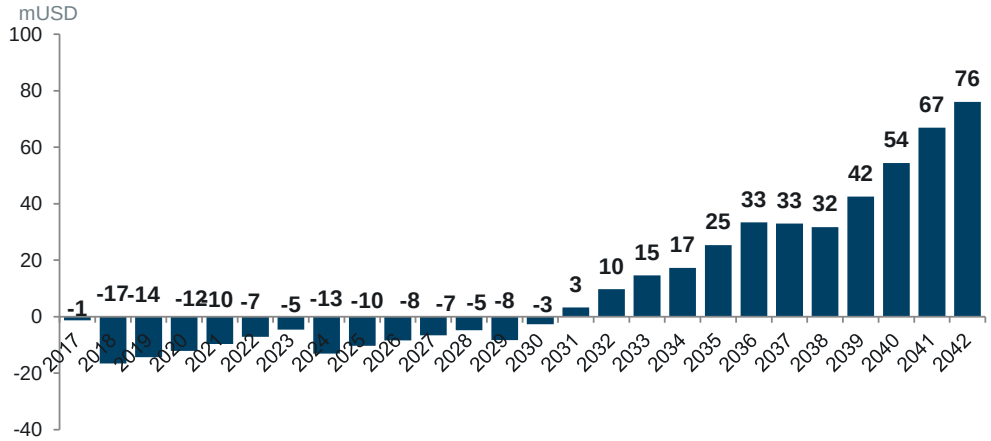


Figure 115: Project Cash Flow before Taxes 4 selected airports – 2017-2042; mUSD (Nominal)

The cumulative project cash flow becomes positive after 14 years.



Note: Includes residual value

Figure 116: Project cumulative Cash Flow before Taxes 4 selected airports – 2017-2042; mUSD (Nominal)

Government grant is disbursed between 2017 and 2018. Future funding needs are covered between equity injections and debt disposals as explained above. In 2041, self-funding is used once debt disposals are no longer assumed.

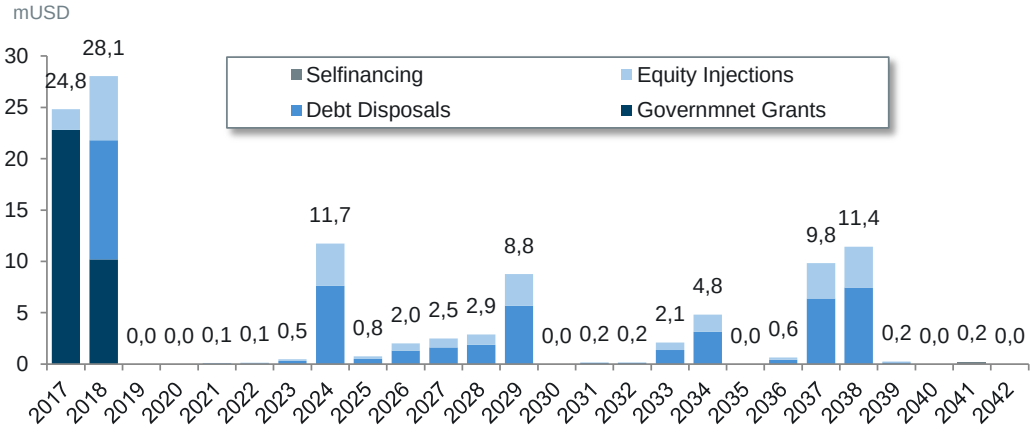


Figure 117: Sources of funding – 2017-2042; mUSD (Nominal)

The IRR of the CFAS is 15.0%, which results in a positive NPV of 0.3m USD; the discount rate of the CFAS is the Cost of Equity (calculated using CAPM model) which is 14.44%.

The IRR of the Cash Flow to Equity is 11.0% which results in a negative NPV of -2.4 mUSD; the discount rate of the Cash Flow to Equity is 14.44%.

The following table summarizes the expected IRR of the project and Net Present Value (NPV) of the different levels of cash flow.

	IRR	Discount rate	NPV (mUSD)
Project Cash Flows before taxes	12.5%	10.8%	2.6
Project Cash Flows after taxes	11.4%	10.8%	1.1
Cash Flows Available to Shareholders	15.0%	14.4%	0.3
Equity Cash Flows	11.0%	14.4%	-2.4

Note:

- Cash Flow Available to Shareholders: The Cash Flow Available to Shareholders or CFAS (also named Free Cash Flow to Equity, FCFE) is calculated as “Project Cash Flows after taxes” minus “Debt Cash Flows”. The CFAS is a measure of how much cash can be paid to the equity shareholders of a company after all expenses, reinvestment and debt are paid. Although CFAS may calculate the amount available to shareholders, it does not necessarily equate to the amount paid out to shareholders. Cash Flow Available to Shareholders is affected by a Performance Bond of 5m USD with a yearly cost of 1.5%
- Cash Flow to Equity: The Cash Flow to Equity corresponds to cash-outflows (equity injections) and cash-inflows (dividends), from and to the shareholders. The Cash Flow to Equity is different to CFAS due to the effect of the cash trapped (not all cash generated in a period is distributed in the same period to shareholders) mainly attributed to two effects:
    - Dividend payout constraint on the first 3 years of the concession due to debt covenant
    - Annual depreciation and amortization of the fixed assets throughout the concession

Table 41: IRR and NVP form the project cash flows

Taking into account potential concessionaire’s experience, in the context of a bidding process, private operators may be able to improve Non-Aeronautical revenue and Opex assumptions and such project may be attractive for potential private investors. Market sounding is necessary in order to either confirm the interest for private investors or confirm the need for modifying certain concession parameters.

Sensitivity analysis to PFC, D/E ratio and concession fee has been performed. It can be observed that it could be possible to establish a concession fee under certain conditions (*i.e.* 25% increase in PFC).

	Conc. Fee \ D/E	60/40	65/35	70/30	IRR Project	Cumm. Conc. Fee (mUSD Real 2016)
Passenger facility charge (PFC) 16.5 USD / intl. dep pax 8.6 USD / dom. dep pax	0% of revenues	10.3%	11.0%	11.8%	12.5%	0
	5% of revenues	7.4%	7.9%	8.3%	10.2%	9.9
	10% of revenues	4.6%	4.7%	4.9%	7.9%	19.8
	15% of revenues	1.7%	1.6%	1.3%	5.6%	29.7

	Conc. Fee \ D/E	60/40	65/35	70/30	IRR Project	Cumm. Conc. Fee (mUSD Real 2016)
Passenger facility charge (PFC) 20.6 USD / intl. dep pax 10.8 USD / dom. dep pax	0% of revenues	20.1%	21.6%	23.4%	21.0%	0
	5% of revenues	17.0%	18.2%	19.7%	17.9%	12.7
	10% of revenues	13.6%	14.6%	15.8%	15.2%	25.4
	15% of revenues	9.9%	10.6%	11.5%	12.3%	38.0

XX IRR to Equity Cash Flows XX IRR to Project Cash Flows before taxes

Figure 118: Sensitivity to PFC and D/E ratio

7 NEXT STEPS - Indicative Timetable

The following timetable outlines the future activities to be carried out to conclude the process. Based on similar projects these activities are expected to take place between 1 and 1.5 years from the present time.

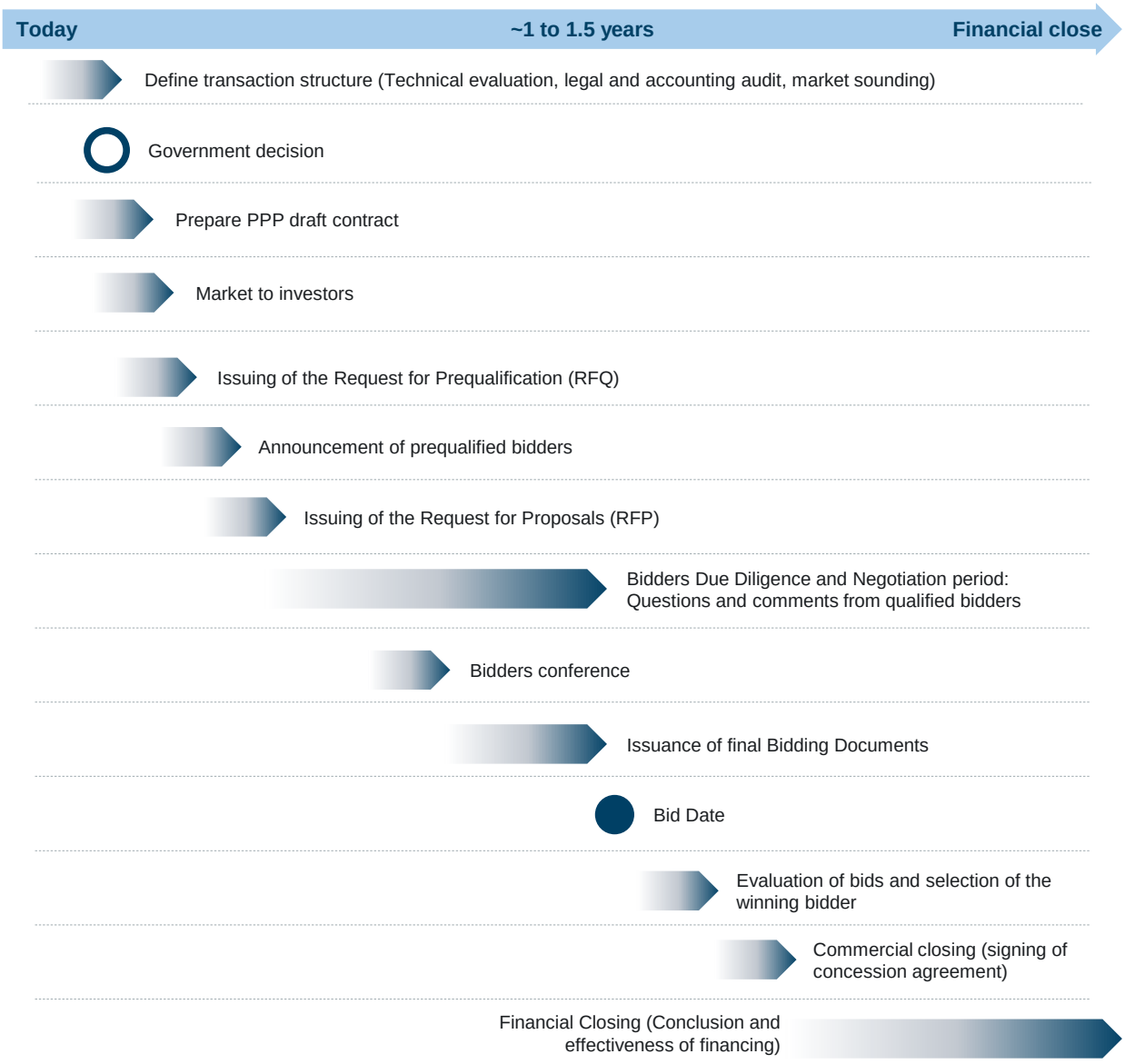


Figure 119: Indicative timetable

In order to move forward and pursue the project, the Government of the Bahamas has to address certain issues to set the ground for a public tender. The main tasks to address before reaching a positive government decision on continuing with the PPP process include the legal and accounting audit and the market sounding; *i.e.*

- Market sounding: Evaluate preliminary key concession parameters and perform a market sounding in order to either confirm it holds interest for private investors or recognize the need to modify the characteristics of the concession
- Legal and accounting audit:
    - Regulatory regime: The Government has to define a PPP-enabling legislation which would govern the transaction, including the concession fee to be charged and charge-setting and adjustment mechanisms to be included in the Concession Agreement
    - Grantor: Identify the public entity that would act as the Grantor

- Timeline: Establish a preliminary timeline for the next steps of the bidding process
- Fees, charges and taxes: analyse the proposals fees and charges included in the document
- Selection criteria: Define the parameters under which the public tender would be evaluated in order to select the winning bidder
- Co-financing: Determine disbursement mechanisms for the Government grant towards the Concessionaire

Following the decision, a PPP contract would be drafted to start the bidding process. Finally, once the winner is announced it would have to perform needed activities to reach financial close.

8 Annexes

8.1 Runway length and aircraft range

The runway length necessary to take-off for each of the potential aircrafts to be used at these airports in the has been calculated considering 90% of MTOW, assuming sea level conditions and a reference temperature of 30ºC (ISA + 15ºC), as they are located in the Caribe. The following figure illustrates these lengths:

Aircraft	RWY width	Runway length needed to take-off with 90% MTOW
ATR42	30	775
DHC8-300	30	1,700
ATR72	30	1,180
CRJ 900 ER	30	1,700
E190	30	1,400
B737-400	30	2,050
B737-800	30	1,900
A320-200 (IAE & CFM engines)	30	1,700 / 2,150
A330	45	2,000

Figure 120: Runway length analysis

The minimum runway length that should be provided is 1,400 m to ensure at least the landing of the Embraer 190. Furthermore, 300 additional meters would allow operating most of narrow bodies. Finally, 2,100 m of runway would allow the operation of all narrow bodies and also small wide bodies (such as the A330).

The ranges of the aircraft models assessed at 90% MTOW and full passenger capacity are shown in the following figure:

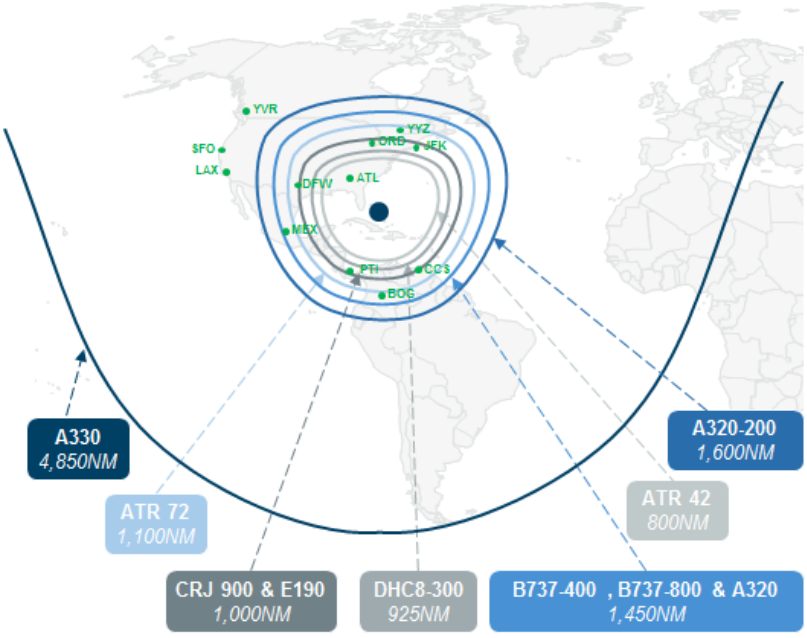


Figure 121: Aircraft ranges

8.2 Taxiway capacity

The taxiway system capacity at each airports has been measured considering the time between the following combinations of operations:

- Departure – Departure (D-D)
- Departure – Arrival (D-A)
- Arrival – Arrival (A-A)
- Arrival – Departure (A-D)

Time between operations is different at each airport depending on the airfield layout and taxi times.

Departure – Departure (D-D)

It considers:

- Precedent aircraft takes off and clears runway for next departure
- Taxi time from holding point to runway end
- Positioning time at the runway end

Departure – Arrival (D-A)

It considers:

- Approach time - 4 nm of separation air navigation distance between departures and arrivals
- Turbulence dissipation after take-off

Arrival – Arrival (A-A)

It considers:

- Landing time and taxi out of the precedent aircraft until it clears the runway
- Approach time - 5 nm of separation air navigation distance between two consecutive arrivals

Arrival – Departure (A-D)

It considers:

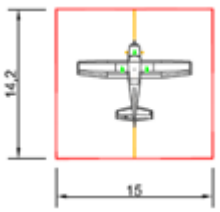
- Landing time and taxi out of the precedent aircraft until it clears the runway
- Taxi time from holding point to runway end

8.3 Apron dimensioning criteria

Apron stands have been designed following the criteria specified in this annex.

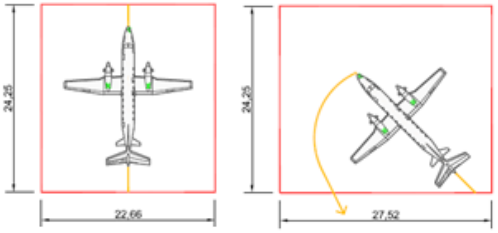
Type A

- Design aircrafts: Larger longitude and width span of type A aircraft
- Dimension: 213 sqm (15 x 14.2)



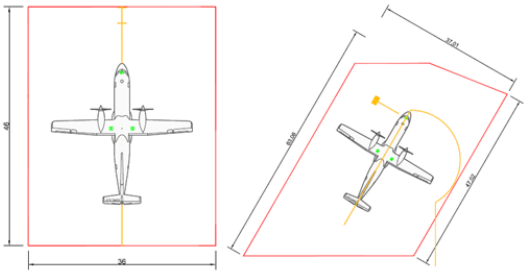
Type B

- Design aircrafts: Beechcraft 1900, Beechcraft C9
- Dimension: 550 sqm (24.25 x 22.66)



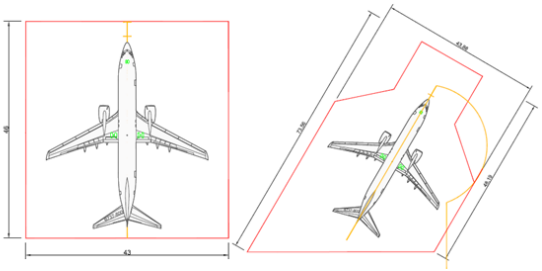
Type C – Turboprop (small Type C)

- Design aircrafts: ATR 72, DHC-8-Q400, Embraer 145/175
- Dimension: 1656 sqm (46 x 36)



Type C – Turbojet (large Type C)

- Design aircrafts: Boeing 737, Airbus 319/320
- Dimension: 1978 sqm (46 x 43)



8.4 Terminal capacity

Terminal capacity at the selected airports has been analysed by subsystems, taking into consideration the key processes undertaken by passenger and luggage in both arrivals and departures. The subsystems analysed are:

- Departures concourse
- Check-in counters
- Security check
- Departures lounge
- Passport control
- Customs
- Baggage claim area & units
- Arrivals hall

The analysis has been carried out based on the ratios provided by IATA's "Airport Development Reference Manual" following service level C.

8.5 Detailed Traffic forecast

	2015	2016	2017	2018	2019	2020	2025	2030	2040	CAGR '15-'17	CAGR '17-'22	CAGR '22-'32	CAGR '32-'42	CAGR '17-'32	CAGR '17-'42
Marsh Harbour *('000 pax)*															
Total traffic	308	**347**	**348**	**358**	**368**	**378**	**429**	**507**	**658**	**6.3%**	**2.7%**	**2.9%**	**2.8%**	**2.8%**	**2.8%**
Private	73	74	74	74	75	75	77	81	89	0.3%	0.6%	0.7%	1.4%	0.7%	1.0%
Commercial Dom	128	140	137	142	146	151	176	213	269	3.2%	3.3%	3.3%	2.4%	3.3%	2.9%
Commercial Intl'	106	133	138	142	147	152	176	213	300	13.7%	3.2%	3.5%	3.6%	3.4%	3.5%
Exuma *('000 pax)*															
Total traffic	187	**198**	**198**	**205**	**212**	**220**	**258**	**315**	**409**	**2.8%**	**3.4%**	**3.5%**	**2.8%**	**3.5%**	**3.2%**
Private	15	15	15	15	15	15	16	18	18	0.7%	1.5%	1.3%	0.8%	1.4%	1.1%
Commercial Dom	91	92	88	91	94	98	115	140	174	-1.5%	3.5%	3.4%	2.3%	3.4%	3.0%
Commercial Intl'	82	92	95	99	103	107	126	157	217	7.8%	3.7%	3.8%	3.4%	3.8%	3.6%
North Eleuthera *('000 pax)*															
Total traffic	120	**135**	**137**	**142**	**146**	**151**	**173**	**207**	**269**	**7.0%**	**3.0%**	**3.1%**	**2.8%**	**3.1%**	**3.0%**
Private	20	21	21	21	21	22	23	25	26	1.0%	1.4%	1.2%	0.8%	1.3%	1.1%
Commercial Dom	51	53	53	55	57	58	68	81	102	2.5%	3.1%	3.1%	2.4%	3.1%	2.8%
Commercial Intl'	49	61	63	66	68	70	83	101	142	13.8%	3.4%	3.6%	3.5%	3.6%	3.5%
Treasure Cay *('000 pax)*															
Total traffic	20	**18**	**18**	**19**	**19**	**19**	**20**	**21**	**29**	**-4.9%**	**0.9%**	**1.5%**	**3.1%**	**1.3%**	**2.0%**
Private	4	4	4	4	4	4	4	4	4	0.2%	0.2%	0.5%	0.8%	0.4%	0.6%
Commercial Dom	2	1	1	1	1	2	2	2	2	-18.0%	0.8%	1.4%	2.9%	1.2%	1.9%
Commercial Intl'	14	13	13	13	14	14	14	16	22	-4.3%	1.1%	1.8%	3.6%	1.6%	2.4%
4 selected airports *('000 pax)*															
Total traffic	636	**699**	**702**	**723**	**745**	**767**	**879**	**1,050**	**1,365**	**5.1%**	**2.9%**	**3.1%**	**2.8%**	**3.0%**	**2.9%**
Private	112	113	113	114	115	116	120	128	137	0.5%	0.9%	0.9%	1.2%	0.9%	1.0%
Commercial Dom	272	286	279	289	299	309	360	435	548	1.4%	3.3%	3.3%	2.4%	3.3%	2.9%
Commercial Intl'	252	299	310	320	331	342	399	487	681	10.8%	3.3%	3.6%	3.5%	3.5%	3.5%

Table 42: Passenger traffic forecast by airport

	2015	2016	2017	2018	2019	2020	2025	2030	2040	CAGR '15-'17	CAGR '17-'22	CAGR '22-'32	CAGR '32-'42	CAGR '17-'32	CAGR '17-'42
Marsh Harbour *('000 ATMs)*															
Total traffic	**37.4**	**39.2**	**38.9**	**39.2**	**39.6**	**39.9**	**40.9**	**43.5**	**51.2**	**1.9%**	**0.8%**	**1.0%**	**2.0%**	**0.9%**	**1.4%**
Private	24.5	24.6	24.4	24.5	24.6	24.7	24.6	25.3	27.3	0.0%	0.2%	0.3%	1.3%	0.3%	0.7%
Commercial Dom	6.7	7.2	6.9	7.1	7.2	7.3	7.9	8.8	10.9	2.0%	1.8%	1.9%	2.3%	1.9%	2.0%
Commercial Intl'	6.2	7.4	7.5	7.6	7.8	7.9	8.5	9.4	13.0	9.7%	1.6%	2.1%	3.4%	1.9%	2.5%
Exuma *('000 ATMs)*															
Total traffic	**10.1**	**10.4**	**10.3**	**10.5**	**10.7**	**11.0**	**12.0**	**13.6**	**16.0**	**0.8%**	**2.0%**	**2.1%**	**1.9%**	**2.1%**	**2.0%**
Private	5.2	5.2	5.2	5.3	5.3	5.4	5.7	6.1	6.3	0.3%	1.3%	1.1%	0.8%	1.2%	1.0%
Commercial Dom	3.2	3.3	3.1	3.2	3.3	3.4	3.9	4.5	5.6	-1.9%	2.8%	2.8%	2.3%	2.8%	2.6%
Commercial Intl'	1.8	1.9	2.0	2.1	2.1	2.2	2.5	3.0	4.1	6.7%	2.8%	3.2%	3.4%	3.0%	3.2%
North Eleuthera *('000 ATMs)*															
Total traffic	**19.2**	**19.9**	**19.8**	**20.1**	**20.3**	**20.6**	**21.6**	**23.5**	**26.8**	**1.6%**	**1.2%**	**1.3%**	**1.7%**	**1.3%**	**1.4%**
Private	12.5	12.6	12.5	12.6	12.7	12.8	13.1	13.8	14.2	0.0%	0.7%	0.7%	0.8%	0.7%	0.7%
Commercial Dom	4.9	5.1	5.0	5.1	5.2	5.3	5.9	6.7	8.4	1.7%	2.1%	2.3%	2.4%	2.2%	2.3%
Commercial Intl'	1.8	2.2	2.2	2.3	2.4	2.4	2.6	3.0	4.2	12.2%	2.1%	2.5%	3.5%	2.4%	2.8%
Treasure Cay *('000 ATMs)*															
Total traffic	**2.4**	**2.3**	**2.3**	**2.3**	**2.3**	**2.3**	**2.3**	**2.3**	**2.7**	**-2.6%**	**0.1%**	**0.5%**	**1.8%**	**0.4%**	**0.9%**
Private	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.6	1.6	0.0%	0.0%	0.2%	0.8%	0.1%	0.4%
Commercial Dom	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	-16.8%	-0.2%	0.5%	2.9%	0.3%	1.3%
Commercial Intl'	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.9	-4.9%	0.4%	1.3%	3.6%	1.0%	2.0%
4 selected airports *('000 ATMs)*															
Total traffic	**69.1**	**71.8**	**71.2**	**72.1**	**72.9**	**73.7**	**76.8**	**83.0**	**96.7**	**1.5%**	**1.1%**	**1.3%**	**1.9%**	**1.2%**	**1.5%**
Private	43.7	44.0	43.7	44.0	44.2	44.5	44.9	46.8	49.3	0.0%	0.5%	0.5%	1.1%	0.5%	0.7%
Commercial Dom	14.9	15.6	15.2	15.5	15.8	16.2	17.8	20.2	25.2	0.8%	2.1%	2.2%	2.3%	2.2%	2.2%
Commercial Intl'	10.4	12.1	12.3	12.6	12.8	13.1	14.2	16.0	22.2	8.8%	1.9%	2.3%	3.4%	2.2%	2.7%

Table 43: ATMs forecast

	2015	2016	2017	2018	2019	2020	2025	2030	2040	CAGR '17-'22	CAGR '22-'32	CAGR '32-'42	CAGR '17-'32	CAGR '17-'42
Marsh Harbour														
Total PHP	**N/A**	**326**	**328**	**331**	**335**	**339**	**371**	**393**	**464**	**1.2%**	**1.7%**	**1.9%**	**1.5%**	**1.6%**
Departures PHP	N/A	191	193	195	198	201	217	245	296	1.4%	1.9%	1.9%	1.7%	1.8%
Arrivals PHP	N/A	156	157	159	161	164	178	200	241	1.5%	1.8%	1.9%	1.7%	1.8%
Total ATMs/h	**N/A**	**34**	**34**	**34**	**34**	**34**	**35**	**35**	**38**	**0.0%**	**0.6%**	**1.1%**	**0.4%**	**0.7%**
Commercial	N/A	8	8	8	8	8	9	9	11	0.0%	2.3%	1.8%	1.5%	1.6%
Private	N/A	26	26	26	26	26	26	26	27	0.0%	0.0%	0.7%	0.0%	0.3%
Total Stands	**N/A**	**27**	**27**	**27**	**27**	**28**	**28**	**29**	**32**	**0.7%**	**0.4%**	**1.6%**	**0.5%**	**0.9%**
Commercial	N/A	3	3	3	3	3	4	4	5	0.0%	2.9%	2.3%	1.9%	2.1%
Private	N/A	24	24	24	24	25	24	25	27	0.8%	0.0%	1.5%	0.3%	0.8%
Exuma														
Total PHP	**N/A**	**297**	**304**	**311**	**334**	**335**	**343**	**371**	**408**	**2.1%**	**1.0%**	**0.9%**	**1.4%**	**1.2%**
Departures PHP	N/A	176	178	180	183	185	220	226	245	1.2%	1.9%	1.5%	1.7%	1.6%
Arrivals PHP	N/A	147	149	151	153	154	184	189	206	1.2%	1.9%	1.5%	1.7%	1.6%
Total ATMs/h	**N/A**	**20**	**20**	**20**	**21**	**21**	**22**	**23**	**24**	**1.0%**	**0.9%**	**0.8%**	**0.9%**	**0.9%**
Commercial	N/A	8	8	8	9	9	9	10	11	2.4%	1.1%	1.0%	1.5%	1.3%
Private	N/A	12	12	12	12	12	13	13	13	0.0%	0.8%	0.7%	0.5%	0.6%
Total Stands	**N/A**	**19**	**19**	**20**	**21**	**21**	**22**	**23**	**25**	**2.0%**	**0.9%**	**1.2%**	**1.3%**	**1.3%**
Commercial	N/A	3	3	3	4	4	4	4	5	5.9%	0.0%	2.3%	1.9%	2.1%
Private	N/A	16	16	17	17	17	18	19	20	1.2%	1.1%	1.0%	1.2%	1.1%
North Eleuthera														
Total PHP	**N/A**	**211**	**212**	**214**	**216**	**218**	**237**	**245**	**275**	**1.0%**	**1.2%**	**1.5%**	**1.1%**	**1.3%**
Departures PHP	N/A	127	128	129	131	132	141	160	175	1.2%	1.8%	1.1%	1.6%	1.4%
Arrivals PHP	N/A	159	160	162	163	165	172	201	212	0.9%	1.9%	0.5%	1.6%	1.2%
Total ATMs/h	**N/A**	**24**	**24**	**24**	**24**	**24**	**25**	**26**	**27**	**0.0%**	**0.8%**	**0.7%**	**0.5%**	**0.6%**
Commercial	N/A	8	8	8	8	8	9	9	10	0.0%	1.2%	2.0%	0.8%	1.3%
Private	N/A	16	16	16	16	16	16	17	17	0.0%	0.6%	0.0%	0.4%	0.2%
Total Stands	**N/A**	**22**	**22**	**23**	**23**	**23**	**24**	**25**	**27**	**0.9%**	**0.8%**	**1.1%**	**0.9%**	**1.0%**
Commercial	N/A	4	4	4	4	4	5	5	6	0.0%	2.3%	1.8%	1.5%	1.6%
Private	N/A	18	18	19	19	19	19	20	21	1.1%	0.5%	1.0%	0.7%	0.8%
Treasure Cay														
Total PHP	**N/A**	**58**	**58**	**58**	**58**	**58**	**59**	**60**	**65**	**0.2%**	**0.4%**	**0.9%**	**0.3%**	**0.5%**
Departures PHP	N/A	29	29	29	29	29	30	31	35	0.4%	0.6%	1.4%	0.5%	0.9%
Arrivals PHP	N/A	29	29	29	29	29	30	30	33	0.3%	0.5%	1.1%	0.4%	0.7%
Total ATMs/h	**N/A**	**6**	**6**	**6**	**6**	**6**	**6**	**6**	**6**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**
Commercial	N/A	2	2	2	2	2	2	2	2	0.0%	0.0%	0.0%	0.0%	0.0%
Private	N/A	4	4	4	4	4	4	4	4	0.0%	0.0%	0.0%	0.0%	0.0%
Total Stands	**N/A**	**7**	**8**	**8**	**8**	**8**	**7**	**8**	**8**	**-2.6%**	**1.3%**	**0.0%**	**0.0%**	**0.0%**
Commercial	N/A	1	1	1	1	1	1	1	1	0.0%	0.0%	0.0%	0.0%	0.0%
Private	N/A	6	7	7	7	7	6	7	7	-3.0%	1.6%	0.0%	0.0%	0.0%

Table 44: Design parameters forecast

8.6 Detailed Aeronautical revenue projections

	2017 2042	2016e	2017	2018	2019	2020	2025	2030	2040	CAGR '17-'22	CAGR '22-'32	CAGR '32-'42	CAGR '17-'32	CAGR '17-'42
Marsh Harbour	**109,769**	**N/A**	**3,024**	**3,108**	**3,192**	**3,279**	**3,655**	**4,240**	**5,441**	**2.6%**	**2.6%**	**2.7%**	**2.6%**	**2.6%**
Private	10,396	N/A	387	389	390	391	386	393	422	0.2%	0.1%	1.2%	0.2%	0.6%
Commercial Domestic	36,069	N/A	983	1,013	1,043	1,075	1,221	1,429	1,740	2.9%	2.7%	2.1%	2.8%	2.5%
Commercial Intl'	63,304	N/A	1,655	1,706	1,758	1,812	2,049	2,417	3,278	2.9%	2.9%	3.2%	2.9%	3.0%
Exuma I	**64,955**	**N/A**	**1,651**	**1,710**	**1,769**	**1,832**	**2,123**	**2,561**	**3,292**	**3.4%**	**3.2%**	**2.7%**	**3.3%**	**3.0%**
Private	1,708	N/A	58	59	60	61	64	69	68	1.4%	1.0%	0.5%	1.1%	0.9%
Commercial Domestic	21,713	N/A	570	590	610	631	731	872	1,053	3.3%	3.0%	2.0%	3.1%	2.7%
Commercial Intl'	41,534	N/A	1,023	1,061	1,100	1,140	1,329	1,620	2,171	3.5%	3.4%	3.1%	3.5%	3.3%
North Eleuthera	**44,467**	**N/A**	**1,174**	**1,211**	**1,249**	**1,288**	**1,466**	**1,735**	**2,233**	**3.0%**	**2.9%**	**2.7%**	**2.9%**	**2.8%**
Private	2,528	N/A	82	84	86	88	94	103	102	1.8%	1.3%	0.5%	1.5%	1.1%
Commercial Domestic	15,059	N/A	415	428	440	453	510	593	726	2.8%	2.6%	2.1%	2.6%	2.4%
Commercial Intl'	26,880	N/A	676	699	723	748	862	1,038	1,405	3.3%	3.3%	3.2%	3.3%	3.2%
Treasure Cay	**5,427**	**N/A**	**176**	**178**	**180**	**181**	**185**	**197**	**261**	**0.8%**	**1.2%**	**3.0%**	**1.1%**	**1.8%**
Private	635	N/A	25	25	25	25	24	25	24	-0.1%	0.0%	0.5%	0.0%	0.2%
Commercial Domestic	340	N/A	11	11	12	12	12	12	16	0.6%	1.0%	2.6%	0.9%	1.6%
Commercial Intl'	4,453	N/A	140	142	143	145	149	161	221	0.9%	1.5%	3.3%	1.3%	2.1%
4 selected airports	**224,618**	**N/A**	**6,024**	**6,206**	**6,390**	**6,580**	**7,430**	**8,733**	**11,227**	**2.8%**	**2.8%**	**2.7%**	**2.8%**	**2.7%**
Private	15,267	N/A	551	556	560	564	567	590	616	0.6%	0.4%	1.0%	0.5%	0.7%
Commercial Domestic	73,182	N/A	1,979	2,042	2,105	2,170	2,474	2,907	3,535	3.0%	2.8%	2.1%	2.8%	2.5%
Commercial Intl'	136,170	N/A	3,493	3,609	3,725	3,845	4,389	5,236	7,076	3.1%	3.1%	3.2%	3.1%	3.1%

Table 45: Selected airports Aeronautical Revenues forecast 2017-2042; kUSD (Real 2016)

8.7 Detailed Non-Aeronautical revenue projections

	2017-42	2015e	2016e	2017	2018	2019	2020	2025	2030	2040	CAGR '17-'22	CAGR '22-'32	CAGR '32-'42	CAGR '17-'32	CAGR '17-'42
Marsh Harbour	**26,541**	**715**	**N/A**	**767**	**782**	**798**	**814**	**900**	**1,019**	**1,286**	**2.1%**	**2.3%**	**2.4%**	**2.2%**	**2.3%**
Shops	12,904	328	N/A	355	364	373	382	429	498	642	2.4%	2.7%	2.7%	2.6%	2.6%
Counters & Offices	3,070	105	N/A	105	105	106	106	113	116	132	1.3%	0.9%	0.9%	1.0%	1.0%
Land & Fuel	4,412	133	N/A	142	144	146	148	156	167	201	1.2%	1.4%	1.9%	1.3%	1.5%
Others Non-Aeron.	6,155	149	N/A	164	169	173	178	202	237	312	2.7%	2.9%	2.9%	2.8%	2.9%
Exuma	**4,649**	**N/A**	**N/A**	**58**	**59**	**166**	**168**	**176**	**190**	**209**	**24.0%**	**1.2%**	**1.0%**	**8.3%**	**5.3%**
Shops	2,020	8	N/A	8	8	79	79	81	83	87	56.9%	0.5%	0.5%	16.6%	9.9%
Counters & Offices	1,873	30	N/A	30	30	69	69	71	77	81	18.7%	1.1%	0.5%	6.7%	4.1%
Land & Fuel	41	N/A	N/A	20	20	0	0	0	0	0	-100%	0.0%	0.0%	-100%	-100%
Others Non-Aeron.	715	N/A	N/A	0	0	19	20	24	29	40	0.0%	4.0%	3.3%	0.0%	0.0%
North Eleuthera	**5,698**	**N/A**	**N/A**	**86**	**87**	**199**	**201**	**211**	**229**	**261**	**19.0%**	**1.4%**	**1.3%**	**6.9%**	**4.7%**
Shops	2,011	4	N/A	4	4	79	79	81	83	87	85.9%	0.5%	0.5%	23.4%	13.7%
Counters & Offices	1,607	35	N/A	35	35	58	58	60	66	69	11.1%	1.2%	0.5%	4.4%	2.8%
Land & Fuel	1,606	29	N/A	47	48	49	50	55	61	78	1.8%	2.1%	2.5%	2.0%	2.2%
Others Non-Aeron.	474	N/A	N/A	0	0	13	13	16	19	26	0.0%	3.6%	3.3%	0.0%	0.0%
Treasure Cay	**228**	**N/A**	**N/A**	**7**	**7**	**7**	**7**	**8**	**8**	**12**	**0.8%**	**1.6%**	**3.7%**	**1.3%**	**2.3%**
Shops	0	N/A	N/A	0	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%	0.0%
Counters & Offices	0	N/A	N/A	0	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%	0.0%
Land & Fuel	228	N/A	N/A	7	7	7	7	8	8	12	0.8%	1.6%	3.7%	1.3%	2.3%
4 selected airports	**37,117**	**N/A**	**N/A**	**918**	**935**	**1,171**	**1,190**	**1,294**	**1,446**	**1,768**	**6.1%**	**2.0%**	**2.1%**	**3.3%**	**2.8%**
Shops	16,936	N/A	N/A	367	376	531	541	591	664	817	8.8%	2.1%	2.2%	4.3%	3.4%
Counters & Offices	6,550	N/A	N/A	169	170	233	234	244	259	282	7.3%	1.0%	0.7%	3.1%	2.1%
Land & Fuel	6,287	N/A	N/A	217	220	202	205	218	237	290	-0.7%	1.6%	2.1%	0.8%	1.3%
Others Non-Aeron.	7,344	N/A	N/A	164	169	205	211	241	286	379	6.3%	3.1%	3.0%	4.1%	3.7%

Table 46: Selected airports Non-Aeronautical Revenues forecast 2017-2042; kUSD (Real 2016)

8.8 Detailed Operating Expenses projections

	2017-42	2015e	2016e	2017	2018	2019	2020	2025	2030	2040	CAGR '17-'22	CAGR '22-'32	CAGR '32-'42	CAGR '17-'32	CAGR '17-'42
Marsh Harbour	**66,742**	**N/A**	**1,698**	**2,261**	**2,296**	**2,311**	**2,347**	**2,444**	**2,574**	**2,854**	**1.1%**	**0.9%**	**1.2%**	**1.0%**	**1.1%**
Manpower	20,254	N/A	264	725	730	717	722	748	781	842	0.2%	0.8%	0.8%	0.6%	0.7%
Utilities	15,311	N/A	435	451	471	491	512	545	589	707	3.1%	1.4%	2.2%	1.9%	2.1%
Repair & Maintenance	11,063	N/A	340	383	386	389	392	407	429	464	0.8%	0.9%	0.8%	0.9%	0.8%
Overheads	20,115	N/A	659	703	709	714	720	743	776	841	0.7%	0.7%	0.9%	0.7%	0.8%
Exuma	**42,675**	**N/A**	**884**	**1,014**	**1,025**	**1,497**	**1,518**	**1,596**	**1,696**	**1,854**	**8.8%**	**1.1%**	**1.0%**	**3.6%**	**2.5%**
Manpower	16,029	N/A	307	399	403	564	570	599	636	692	7.8%	1.0%	0.9%	3.3%	2.3%
Utilities	4,591	N/A	44	46	48	151	158	171	187	217	28.8%	1.7%	1.8%	10.0%	6.7%
Repair & Maintenance	9,137	N/A	229	235	237	322	325	341	363	393	7.1%	1.0%	0.8%	3.0%	2.2%
Overheads	12,919	N/A	304	335	338	461	465	485	511	552	7.2%	0.9%	0.8%	3.0%	2.1%
North Eleuthera	**37,318**	**N/A**	**544**	**821**	**833**	**1,335**	**1,350**	**1,408**	**1,486**	**1,614**	**10.8%**	**0.9%**	**0.9%**	**4.1%**	**2.8%**
Manpower	13,865	N/A	114	324	327	495	500	522	550	598	9.4%	0.9%	0.9%	3.7%	2.6%
Utilities	3,527	N/A	41	43	48	117	122	131	143	163	24.0%	1.6%	1.3%	8.6%	5.6%
Repair & Maintenance	8,115	N/A	161	161	162	292	295	308	325	352	13.3%	0.9%	0.8%	4.9%	3.3%
Overheads	11,811	N/A	228	293	296	430	433	447	467	501	8.4%	0.7%	0.7%	3.2%	2.2%
Treasure Cay	**10,666**	**N/A**	**303**	**390**	**392**	**387**	**389**	**394**	**405**	**443**	**0.1%**	**0.5%**	**0.9%**	**0.4%**	**0.6%**
Manpower	5,966	N/A	78	222	223	218	218	222	227	245	-0.2%	0.5%	0.8%	0.2%	0.5%
Utilities	450	N/A	16	14	14	14	15	15	17	22	2.3%	1.4%	2.8%	1.7%	2.1%
Repair & Maintenance	1,638	N/A	137	60	60	60	60	61	62	68	0.3%	0.5%	0.9%	0.4%	0.6%
Overheads	2,612	N/A	71	95	95	95	95	97	99	108	0.2%	0.5%	0.9%	0.4%	0.6%
4 selected airports	**157,401**	**N/A**	**3,429**	**4,486**	**4,546**	**5,529**	**5,603**	**5,842**	**6,161**	**6,764**	**4.9%**	**0.9%**	**1.0%**	**2.2%**	**1.8%**
Manpower	56,114	N/A	763	1,670	1,683	1,994	2,010	2,091	2,194	2,377	4.1%	0.9%	0.8%	1.9%	1.5%
Utilities	23,879	N/A	537	553	581	774	807	862	936	1,108	8.4%	1.5%	2.0%	3.7%	3.0%
Repair & Maintenance	29,952	N/A	867	838	845	1,063	1,072	1,117	1,178	1,276	5.4%	0.9%	0.8%	2.4%	1.8%
Overhead	47,456	N/A	1,261	1,425	1,438	1,699	1,714	1,772	1,853	2,002	4.0%	0.8%	0.8%	1.9%	1.4%

Table 47: Selected airports operational expenses forecast 2017-2042; kUSD (Real 2016)

8.9 Scenario including RFF and Security

A second scenario was analyzed including RFF and security functions under the concession scope.

Revenues

On top of previously mentioned Aeronautical Revenues, a security fee of 7 USD is added to fund all expenses and investments related to RFF and Security. It is assumed that the fee would be applied to all departing passengers based on the "Landing fee and Parking fee based on Landing, parking, tie-down and air navigation (fees and charges) (Government aerodromes) regulations (ch.284)" document.

Operational expenses – Staff

Additional FTEs are considered in order support RFF and security activities in the 4 selected airports. Basic salaries are assumed to be increased by 20% in order to take into account additional expenses (taxes, training, allowances, overtime, among others).

	Basic Salaries ($)	Marsh Harbour	Exuma	North Eleuthera	Treasure Cay
Fire Fighters	26,000	13	13	13	13
Security	24,000	30	18	15	8

Table 48: RFF and security staff by airport and salaries of RFF and security activities – 2017

It is assumed that FTEs throughout the analyzed period are will increase using elasticities to traffic, terminal areas and airfield areas. Salaries are assumed to increase 0.5% above Bahamas CPI.

	Elasticity to Traffic	Elasticity to Terminal Area	Elasticity to Airfield Area
Fire Fighters	10%	0%	0%
Security	30%	20%	0%

Table 49: RFF and security staff projection assumptions

Operational expenses – Non-staff

Maintenance and Supplies expenses are assumed to increase by 15% in all airports once RFF and security activities are included.

Capital expenditures

An additional capital expenditure of 11.6 mUSD is considered to cover for RFF and security activities. Such investments include fire fighting vehicles and security equipment.

	Nominal mUSD	Total Capex
Regulatory Capex	38.3	**121.4**
Investment Capex	29.4	
Recurrent Capex	44.2	
Others	9.5	

Table 50: Capex including RFF and security investments; mUSD (Nominal)

EBITDA forecast including RFF and security

The following table summarizes the operational performance forecast for the 4 selected airports, in a scenario that includes RFF and security activities throughout the concession period.

	2017	2018	2019	2020	2030	2040	CAGR '17-'22	CAGR '22-'32	CAGR '32-'42	CAGR '17-'32	CAGR '17-'42
EBITDA	**1,267**	**1,447**	**372**	**546**	**2,843**	**5,543**	**-6.6%**	**13.7%**	**6.7%**	**6.5%**	**6.6%**
EBITDA margin (%)	*13.5%*	*15.0%*	*3.7%*	*5.2%*	*20.7%*	*31.7%*	-	-	-	-	-
Total Revenues	**9,399**	**9,673**	**10,168**	**10,456**	**13,757**	**17,514**	**3.2%**	**2.7%**	**2.6%**	**2.9%**	**2.7%**
Total Aeronautical	8,481	8,738	8,997	9,266	12,311	15,746	2.8%	2.8%	2.6%	2.8%	2.7%
Total Non-Aeronautical	918	935	1,171	1,190	1,446	1,768	6.1%	2.0%	2.1%	3.3%	2.8%
Total Opex	**8,132**	**8,226**	**9,796**	**9,911**	**10,915**	**11,971**	**4.4%**	**1.0%**	**1.0%**	**2.1%**	**1.7%**

Table 51: Selected airports EBITDA forecast including RFF and security services 2017-2042; kUSD (Real 2016)

The following table summarizes the expected IRR of the project and the NPV for different levels of cash flows, in a scenario that includes RFF and security activities. As it is shown below, this scenario delivers lower project returns and fails to generate returns to cash flow available to shareholders and to equity.

	IRR	Discount rate	NPV (mUSD)
Project Cash Flows before taxes	3.2%	10.8%	-15.1
Project Cash Flows after taxes	3.1%	10.8%	-16.0
Cash Flows Available to Shareholders	-	14.4%	-10.4
Equity Cash Flows	-	14.4%	-10.5

Table 52: IRR and NVP form the project cash flows including RFF and Security

8.10 Scenario additional Capex requirements

A third scenario was analysed with additional capital expenditures, as was suggested during the workshop session.

Capital expenditures

Three additional Capex were considered in this scenario:

	Works	mUSD
Relocation of North Eleuthera's FBO	• Construction of new FBO building and landside area • Construction of FBO apron adjacent to the new commercial apron	4.9
Short-term RWY repavement in Exuma	• Runway repavement carried out in the short term instead of in 10 years' time • Need for a second repavement before the end the concession period	7.5
Parallel taxiway in Exuma	• Construction of a parallel taxiway in the short-term, taking advantage of the mobilization of asphalt plant and contractors	6.0

Note: Maximum investment required if MOTA has to pay for the relocation costs in North Eleuthera.

Table 53: Additional suggested capital expenditures: mUSD

An additional capital expenditure of 18.4 mUSD has been taken into account.

	Nominal mUSD	Total Capex
Regulatory Capex	40.7	**127.4**
Investment Capex	33.4	
Recurrent Capex	43.1	
Others	10.0	

Table 54: Capex considering additional suggested Capex; mUSD (Nominal)

EBITDA forecast considering additional capital expenditures

The following table summarizes the operational performance forecast for the four selected airports, in a scenario that considers additional Capex.

	2017	2018	2019	2020	2030	2040	CAGR '17-'22	CAGR '22-'32	CAGR '32-'42	CAGR '17-'32	CAGR '17-'42
EBITDA	**2,598**	**2,722**	**2,142**	**2,261**	**3,893**	**6,061**	**-0.7%**	**5.3%**	**4.6%**	**3.3%**	**3.8%**
EBITDA margin (%)	*36.7%*	*37.4%*	*27.9%*	*28.7%*	*38.7%*	*47.3%*	*-3.6%*	*2.8%*	*2.0%*	*0.6%*	*1.2%*
Total Revenues	**7,086**	**7,271**	**7,673**	**7,866**	**10,051**	**12,821**	**3.0%**	**2.5%**	**2.6%**	**2.6%**	**2.6%**
Total Aeronautical	6,168	6,336	6,503	6,676	8,605	11,054	2.5%	2.6%	2.7%	2.5%	2.6%
Total Non-Aeronautical	918	935	1,171	1,190	1,446	1,768	6.1%	2.0%	2.1%	3.3%	2.8%
Total Opex	**4,488**	**4,549**	**5,531**	**5,605**	**6,159**	**6,761**	**4.9%**	**0.9%**	**1.0%**	**2.2%**	**1.8%**

Table 55: Selected airports EBITDA forecast considering additional Capex 2017-2042; kUSD (Real 2016)

The following table summarizes the expected IRR of the project and the NPV for different cash flows levels, including additional Capex suggested during the workshop session.

	IRR	Discount rate	NPV (mUSD)
Project Cash Flows before taxes	7.3%	10.8%	-8.4
Project Cash Flows after taxes	6.8%	10.8%	-8.4
Cash Flows Available to Shareholders	5.4%	14.4%	-8.4
Equity Cash Flows	4.6%	14.4%	-10.2

Table 56: IRR and NVP form the project cash flows considering additional Capex

To maintain a project return rate of 12.5% with these additional investments, a PFC for the Concessionaire of c. 19.5 USD per international departing passenger and 12.0 USD per domestic departing passenger would be needed.

8.11 Local Governance & Community Development

During the study, some stakeholders pointed out the willingness to introduce Local Governance & Community Development (LGCD) in Family Island airports. This chapter highlights the main opportunities and challenges identified and provide some examples of LGCD.

Opportunities	Challenges
• Re-dividing **tasks and responsibilities** between the various tiers of government • Promote the **local authority** perception of island development into planning • Implement **development-oriented spatial planning** of the airport facilities, as well as the infrastructure developments in the vicinities • **Engage** local population into a **business-oriented** airport management model , facilitating trade-off decisions between capital expenditure and charge increases • **Involve tourism sector** stakeholders in airport planning and development to reduce the gap between service provision and end user • **Leverage** on aviation stakeholders to launch international **promotion** campaigns of local destinations • Identify **synergies** between airport developments and other ongoing developments in the island	• Assess the current **legal framework** and the room left for local governance into airport development • Analyse potential **improvements** of the current **legislation** to foster this practice • Identify a long-list of potential spaces for local participation in airport management; identify the **impact** of each participation stage and the **feasibility** of its implementation. Start by promoting **quick-wins** • **Document** the functioning of airport development committees as part of the Aerodrome Manual, such as: - Route development committee - Land use planning committee - Safety & Security committee • Build **local capabilities** to populate the local governance spaces: identify post holders, define roles & responsibilities, provide training, etc. • Prepare the mechanisms to enable community **participation**

Table 57: LGCD Opportunities & Challenges

Involving the local authorities in decision and consultation spaces of the airport development is promoted in many airports worldwide. It is also promoted by ICAO (from a land use planning and safety perspective). The following table provides examples of involvement of the local community in airport management

Level of involvement	Examples
Local Authorities involved in airport development through advisory committees,…	i.e. Many airports worldwide Barcelona airport: • Owned and operated by Aena, a Spanish state-owned company • Barcelona Airport created a committee called Barcelona Air Route Development Committee (BARDC) to address the need to develop intercontinental routes for Barcelona Airport • Its composed of Spanish Airports Authority, Catalan (regional) Government, Barcelona City Council and the Chamber of Commerce • BARDC conducts periodic activities including studies of new air routes, airport promotion activities, intermediations with airlines among

		others
Local Authorities act as the Grantor in the frame of Airport Concessions		Less common practice Quito airport: • In 2000 Ecuador government granted the modernization and operation faculties to de Municipality of Quito • In 2002 a private company signs with Municipality of Quito (through CORPAQ) the construction and concession agreements of the Quito Airport • Private company (QUIPORT) is the operator of the Airport
Local Authorities involved in airport management	**Airport managed by private companies together with local institutions**	i.e. some French regional airports Toulouse airport: • Airport infrastructure is owned by the French government • French government is the Supervisory Authority • After a tender process was conducted in 2015 the French government sold 49.99% of its stakes in the airport operator to Casil Europe • Remaining 50.01% is held by local authorities of which Toulouse Chamber of Commerce has the largest share of 25% • Local authorities, Toulouse Chamber of Commerce and French State hold 9 seats out of 15 in total
	Airport managed by local authorities	i.e. some airports in the USA and Canada Houston airport: • Owned by the city of Houston • As part of the government of the city of Houston, the Houston Airport System HAS is responsible for the operation and management of three airports in the city limits including George Bush International Airport • Through its affiliate, HAS Development Company, it provides airport operator expertise via an exclusive Technical Services Agreement (TSA)

Table 58: Examples of involvement of the local community in airport management

9 GLOSSARY

ACN	Aircraft Classification Number
AIP	Aeronautical Information Publications
ASDA	Accelerate Stop Distance Available
ATC	Air Traffic Control
ATM	Air Traffic Movement
BCAA	Bahamas Civil Aviation Authority
BSD	Bahamian Dollars
CAD	Civil Aviation Department
CAGR	Compound Annual Growth Rate
CAPEX	Capital Expenditure
CPI	Consumer Price Index
DSRA	Debt Service Reserve Account
E&S	Environmental and Social
EBIT	Earnings Before Interest and Taxes
EBITDA	Earnings Before Interest Taxes Depreciation Amortization
ELH	North Eleuthera Airport
EPC	Engineering, Procurement and Construction
FBO	Fixed Base Operator
FTE	Full Time Employee
GDP	Growth Domestic Product
GGT	Exuma Airport
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IRR	Internal Rate of Return
LDA	Landing Distance Available
MHH	Marsh Harbour Airport
MoTA	Ministry of Transport and Aviation
MTOW	Maximum Take-off Weight
MTR	Minimum Technical Requirement
NPV	Net Present Value
OPEX	Operating Expenditure
PAPI	Precision Approach Path Indicator
PCN	Pavement Classification Number
PFC	Passenger Facility Charge
PHP	Peak Hour Passengers
PPP	Public Private Partnership

RESA	Runway End Safety Area
RFF	Rescue and Fire Fighting
RFP	Request for Proposals
RFQ	Request for Qualifications
RWY	Runway
SARP	IATA Standards and Recommended Practices
Sqm	Square meters
TCB	Treasure Cay Airport
TODA	Take-Off Distance Available
TORA	Take-Off Run Available
TWY	Taxiway
USD	US Dollars
VAT	Value Added Tax
WACC	Weighted Average Cost of Capital

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