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REGIONAL AIR CARGO AND AIRCRAFT MAINTENANCE HUB STUDY – FINAL REPORT

Prepared for:
**Airports Authority of
Trinidad and Tobago**

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INTRODUCTION AND PROJECT OVERVIEW**1.1 INTRODUCTION**

SH&E was retained by the Airports Authority of Trinidad and Tobago (AATT) to conduct a feasibility study on the proposed Regional Air Cargo Hub and Aircraft Maintenance Centre project at Piarco International Airport (“Piarco” or “the Airport”). This study has been funded by a grant from the United States Trade and Development Agency (USTDA).

The objective of this study was to identify commercial opportunities at the Airport, to evaluate the financial feasibility of various projects and to assist AATT in evaluating these opportunities. As part of our work we created a strategic development plan to set out the parameters and requirements to create a cargo hub and aircraft maintenance (“MRO”) centre at the Airport. We believe in the course of our work we have accomplished these objectives and provided AATT with a strategic plan that the Authority can implement.

The organization of the study was 6 task reports that were delivered to AATT over the course of the project.

The ***Task 1 Report*** (see Chapter 2) set the stage for our strategic planning. The report presents a review of the existing Piarco physical infrastructure, a review of previous studies, plans, regulations and interviews with Airport stakeholders to understand the objectives of the various parties who use Piarco.

The ***Task 2 Report*** (see Chapter 3) examines the range of non-aeronautical business opportunities at the Airport. Our report reviews various business opportunities available at the Airport and considers them in light of aviation industry trends. We further conducted a SWOT analysis for each area and ranked the opportunities based on the potential economic return to AATT. Based on this analysis, the AATT board of directors focused our work to evaluate the development of an air cargo hub and aircraft maintenance centre.

The ***Task 3 Report*** (see Chapter 4) investigates the specific opportunities of an air cargo hub and aircraft maintenance centre, projecting future aviation demand at the Airport for each opportunity and sizing the infrastructure requirements and the development costs for each of these two opportunities based on international standards. It was determined that with the pending construction of new cargo warehouse on the south side of the Airport, Piarco has sufficient facilities to support the near and mid-term infrastructure requirements for cargo.

The ***Task 4 Report*** (see Chapter 5) presents the results of a financial feasibility model and corresponding analysis for air cargo and aircraft maintenance at Piarco. SH&E developed a financial model, which estimates revenue and operating costs for the projects over a 20-year horizon and estimates the level of public and private investment necessary for project implementation. From this, SH&E evaluated the possible PPP structures that could be used in developing the projects and recommended what we believed to be the optimal approach. Further, as part of this task, in order help AATT establish the rates and charges at the Airport, SH&E developed an airport pricing model.

The ***Task 5 Report*** (see Chapter 6) develops a strategic marketing plan for the development of a third party joint venture (“JV”) aircraft maintenance centre at Piarco. The project is envisioned as a joint venture between a third party aircraft maintenance operator and Caribbean Airlines, in coordination with the Ministry of Public Works and Transport and AATT. This report identifies potential JV partners and suggests a process and provides marketing material necessary to engage with prospective third parties.

The ***Task 6 Report*** (see Chapter 7) provides the tender documents necessary to initiate a public bid process, including a concession lease and approach to evaluate and rate potential bid offers.

The following six chapters (Chapters 2-7) reflect the work conducted over the course of this project.

We want to thank Minister of Transport Jack Warner; General Manager of Piarco International Airport, Mr. Louis Fredrick; Airport Manager of Crowne Point International Airport, Ms. Rosalind Chinnia-Ramadeen; and the staff of the Airports Authority of Trinidad and Tobago, for their efforts in assisting us in this work.

1.2 EXECUTIVE SUMMARY

1.2.1 Market Opportunity

As part of this project SH&E evaluated potential commercialization opportunities at Piarco and identified four projects which we believe have the best chance of succeeding. These were as follows:

Exhibit 1-1: Opportunities Ranked by Potential for Economic Return to AATT

Rank	Opportunity	Direct Revenue	Indirect Revenue
1	Regional Cargo Hub	<ul style="list-style-type: none"> Increased landing, fuel, cargo handling fees Additional rental income 	<ul style="list-style-type: none"> Contributes to business park, FTZ, MRO center Increased local employment
2	MRO Centre	<ul style="list-style-type: none"> Additional rental income 	<ul style="list-style-type: none"> Increased landing, fuel and cargo handling fees Increased local employment
3	Free Trade Zone/Business Estate	<ul style="list-style-type: none"> Additional rental income 	<ul style="list-style-type: none"> Supports cargo hub, MRO Increased local employment Small stimulation of passenger and cargo traffic
4	Retail Estate	<ul style="list-style-type: none"> Additional rental income 	<ul style="list-style-type: none"> Increased local employment

Source: SH&E analysis

Two of these projects were selected by AATT for further study of potential development – a cargo hub and an MRO. SH&E developed a detailed market analysis for each of the projects and estimated the potential business that AATT might be able to attract to Piarco. From this we created conceptual drawings, assessed the infrastructure requirements, sized facilities and estimated development cost for each project. Then we analyzed the financial requirements and concession structure appropriate for each project and developed a strategic plan to attract third party involvement.

Below is a summary of our findings for developing a cargo hub and aircraft maintenance centre:

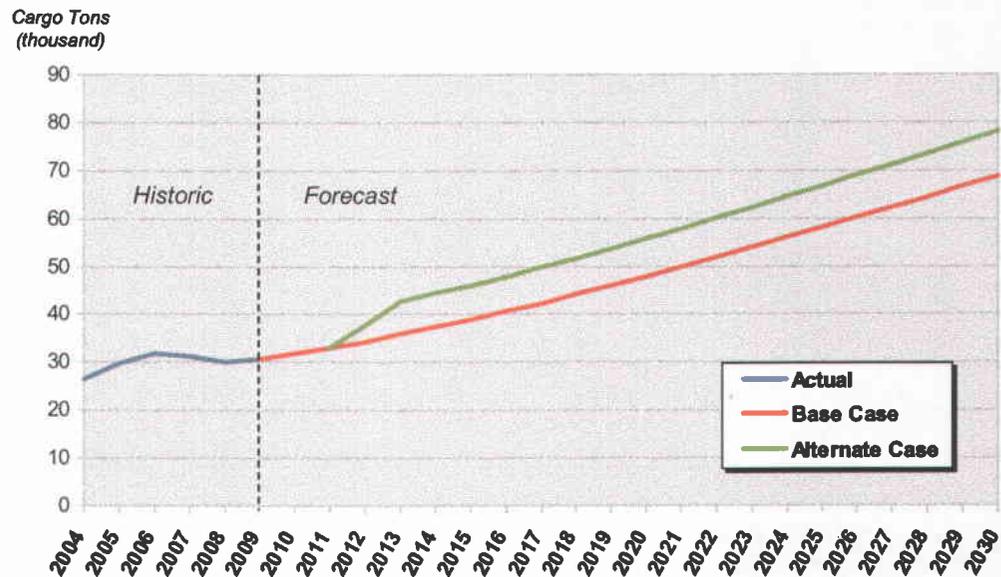
1.2.2 Developing a Cargo Hub at Piarco

Despite being much smaller than Miami and San Juan airports, POS is an important air cargo market within the Caribbean Basin, and has the third largest volume among island locations after San Juan and Santo Domingo. Because of its location POS is not ideal for many intra-Caribbean and US-Caribbean trade flows, but Trinidad’s

large local market gives the Airport potential as a regional cargo hub for the Southern Caribbean.

To understand the future cargo warehouse infrastructure requirements at Piarco SH&E developed long range cargo forecasts for Trinidad under two scenarios: 1) continued growth of organic cargo traffic (“base case”) at POS, 2) development of Piarco as a cargo hub to support connecting traffic between North and South America (“alternate case”).

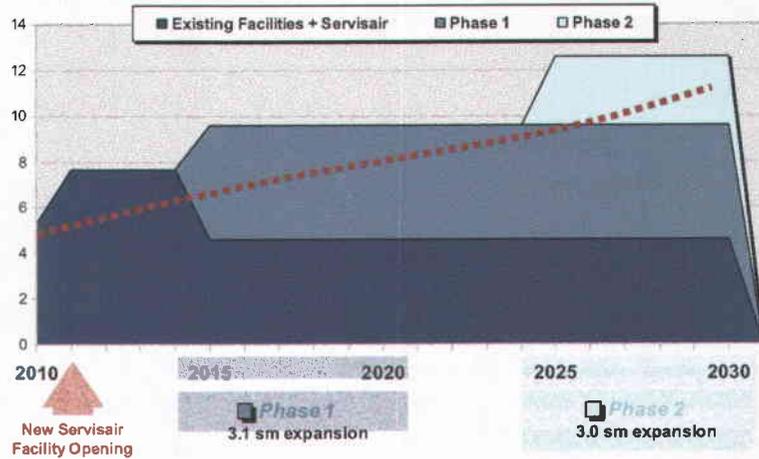
Exhibit 1-2: Comparison of Base and Alternate Case Cargo Forecasts



Source: SH&E analysis

These forecasts were then translated into cargo facilities forecasts and compared to the current capacity at the Airport, and what is proposed to be built. AATT has entered into a ground lease with Servisair, a ground handling company, to construct a new warehouses facility at POS which is planned for opening in 2011.

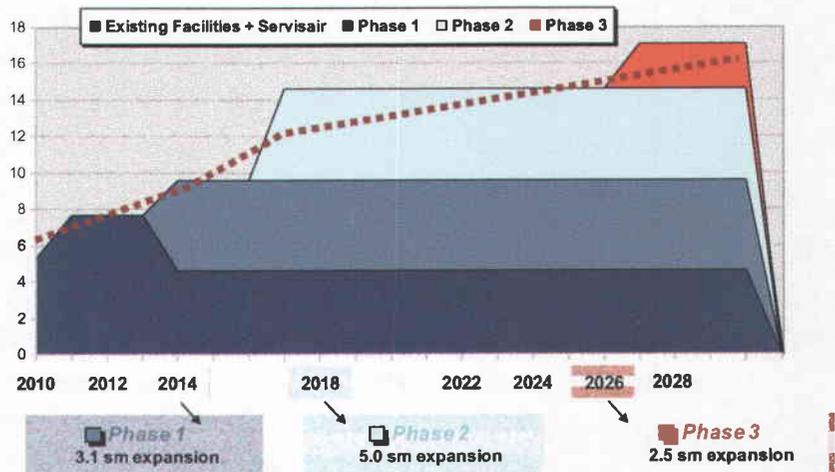
Exhibit 1-3: Cargo Warehouse Facilities (Base Case)



Source: SH&E Analysis

Under the base case, with the new Servisair facility we believe that POS will have sufficient cargo infrastructure for approximately the next 6-7 years. Our analysis suggests that the next phase of warehouse expansion (Phase 1) should be started between 2015 and 2020 – depending on how cargo growth actually materializes. We estimate the requirement to be approximately 3,100 square meters of combined warehouse and administrative/support space. After Phase 1 construction, AATT should anticipate an additional 3.0 square meters of combined warehouse and administrative/support space to be prepared required in 2025 to 2030 timeframe.

Exhibit 1-4: Cargo Warehouse Facilities (Alternative Case)



Source: SH&E Analysis

As shown in Exhibit 1-2, if AATT were successful in attracting a cargo airline to “hub” the cargo infrastructure requirements at the Airport would be substantially greater. In that case, AATT should anticipate a three phased development process –

with Phase 1 starting construction in approximately 2014 for a new 3,100 square meter facility, Phase 2 starting construction in approximately 2018 for a new additional 5,000 square meters of facilities, and Phase 3 starting construction in 2026 for a new additional 2,500 square meters of facilities.

AATT has a long established policy of entering into ground leases with third party developer/operators for new cargo warehouse facilities built on Airport. As part of our report we have estimated the land requirements in the development phases and created an implementation plan showing where each phase might be located at the Airport. Based on AATT's ground lease policy and the fact that the new Servisair warehouse will support the new cargo requirements for the next 3 to 9 years (depending on the ability to attract a cargo airline to hub at POS) we have assumed that new development will be created by third parties – and, as in the past, AATT will take none of the development or financing risk for new cargo infrastructure.

1.2.3 Developing a Third Party JV Aircraft Maintenance Centre

We found sufficient demand to warrant development of a new third-party MRO centre at POS. There are few competitive options for outsourced maintenance within the region, and currently airlines are forced to send their aircraft farther afield for servicing. U.S. carriers are increasingly sending a heavy maintenance work to third party MRO shops in Central America. Trinidad is sufficiently close to both North America and South America to be able to tap into demand from all of the Americas, a vastly larger market than the Caribbean alone.

An MRO center located at POS would offer many of the same advantages as the Central American MROs. Though labor and logistics costs in Trinidad are somewhat higher than in Central America, they are still much lower than in the U.S. and Canada. Trinidad & Tobago has the advantage of being an English-speaking nation; most potential airline customers will be from English speaking countries, and English is the working language for most worldwide aircraft maintenance.

An important consideration in our analysis is the fact that CAL's existing MRO facilities must be moved. The facilities obstruct operation of a full length taxiway at the Airport and GORTT must pay for the cost of new MRO facilities. By using facility replacement as the foundation to create a new joint venture enterprise - between CAL and an independent third party MRO operator - we believe GORTT can create a business substantially larger than if CAL were to continue operating its own MRO business on a standalone basis. A third party operator can bring a pipeline of work from the Americas to be performed at the new joint venture MRO.

Forming a third party JV MRO business at Piarco will create the opportunity to grow

a larger aviation related sector within Trinidad, with greater economic benefit, increased high paying jobs, and with success the possibility of other aviation companies locating at Piarco.

Key Success Factors

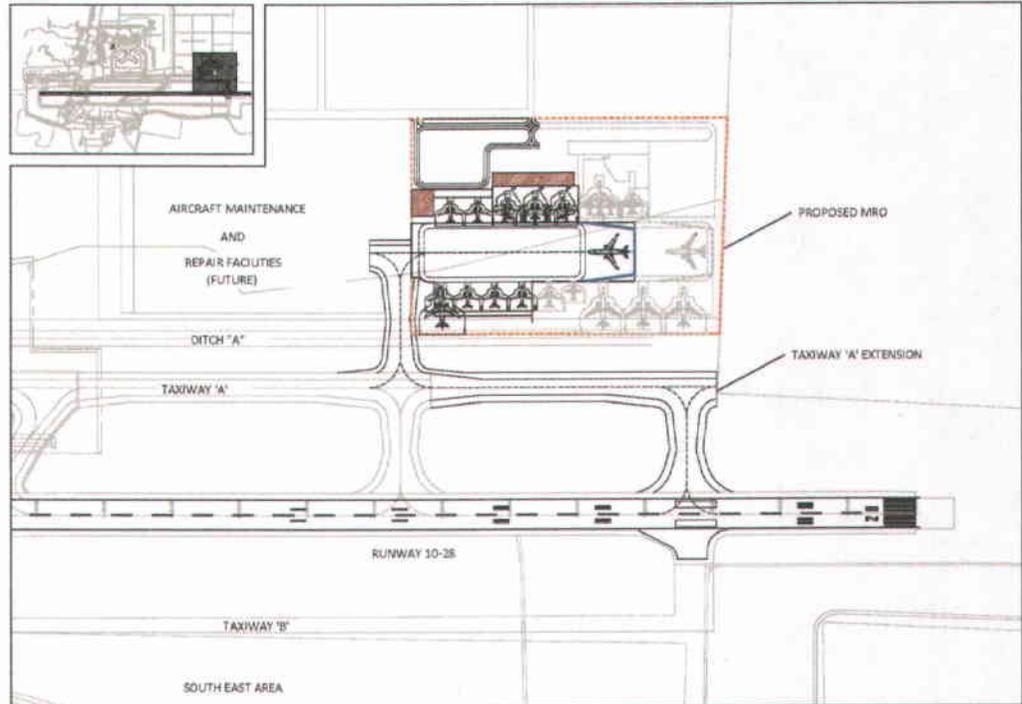
Some of the critical requirements for a successful third party MRO at Piarco will include:

- Developing a new corporate structure (e.g., CAL's maintenance division must be spun-off, and a new independent joint venture entity must be created).
- Entering into require an exclusive contract for maintenance services for Caribbean Airlines, for a period of at least five years, to ensure that there is sufficient business at launch.
- Constructing and upgrading new facilities in order to ensure that it has sufficient capacity and complies with the highest quality and safety standards. The new facility location should have sufficient room for future expansion, potentially including a widebody-capable hangar. New CAL corporate headquarters could be developed adjacent to the MRO facilities.
- Delivering high quality and high value MRO services to customer carriers, with a particular focus on safety and turn time, at competitive rates.

Infrastructure Requirements:

Below are some of the highlights of location, sizing and costing of the MRO hangar development project. The proposed project is to be located at the far end of Runway 10-28, as shown below, on the next page.

Exhibit 1-5: MRO Facility Location



Source: SH&E Analysis

Exhibit 1-6: Concept for a Caribbean Airlines JV MRO



Source: SH&E Analysis

The project cost to prepare the site, construct a 6,700 S.M. MRO hangar sufficient to operate the business , aircraft apron, taxiway access and landside support, car parking and road access is estimated at be US\$ 28.6 million or TT\$ 181.6 million.

Exhibit 1-7: MRO Facility Project Costs

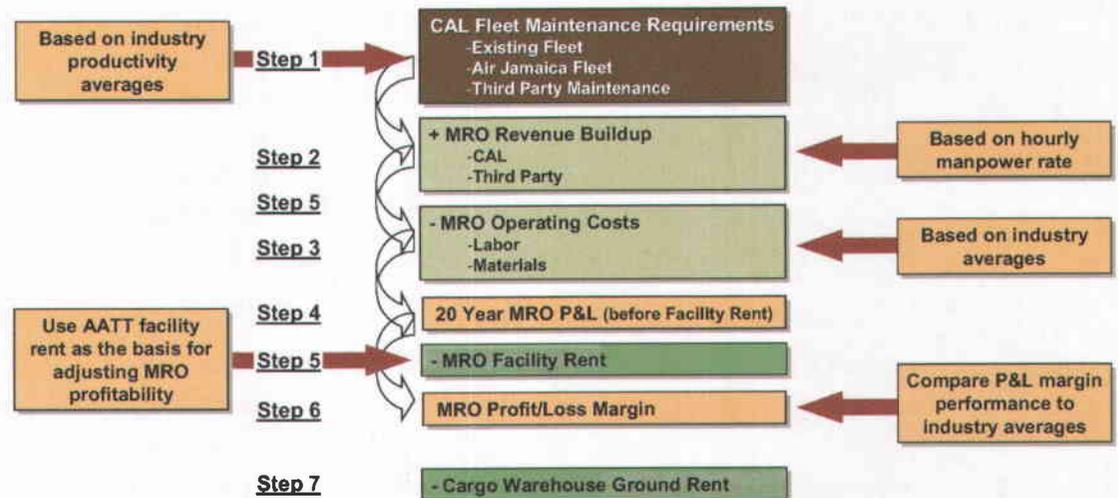
	Area in S.M.	Project Costs (in 000's)	
		in USD	in \$TT
Hangar	6,760	\$ 6,557	\$ 41,573
Other Landside	13,800	\$ 3,309	\$ 20,980
Airside	51,742	\$ 11,124	\$ 70,530
Soft Costs		\$ 14,209	\$ 90,078
Total	72,302	\$ 28,642	\$ 181,588

Source: SH&E Estimates

Financial Analysis:

SH&E created a financial model to evaluate the feasibility of developing a Caribbean Airline (CAL)/third party MRO business and cargo warehouse facilities at the Airport using a seven step process as presented below. The model was used to assess the financial feasibility of the project and consider how best to structure the public private partnership arrangement between GORTT and the private sector. SH&E made a range of assumptions regarding the activity, revenues and operating costs of the joint venture based on international experience and benchmarking.

Exhibit 1-8: Structure of the Financial Model



Source: SH&E

SH&E considered several investment scenarios that may be applied to support the MRO hangar. These are:

- Full private financing
- Partial private financing/with government payment of airside infrastructure

■ Government supported financing

Based on our analysis only a government-supported financing approach will generate a sufficient return to the JV to attract a third party operator. GORTT will need to finance all airside and landside development for the project and the private sector would fully repay the project cost over time. Public financing would be in the amount of US\$ 13.4 million at a market interest rate but have favorable length terms.

Implementation/Next Steps:

As part of our work we have prepared tender documents for the solicitation of a third party MRO joint venture partner. Implementation will require a coordinated effort from multiple parties. Critical to the development process will be AATT, CAL, and the Ministry of Works & Transport. This will be a very involved process. We anticipate that from beginning to end, this will be a four-year process.

Exhibit 1-9: Actions and Timing of JV 3rd Party MRO Development

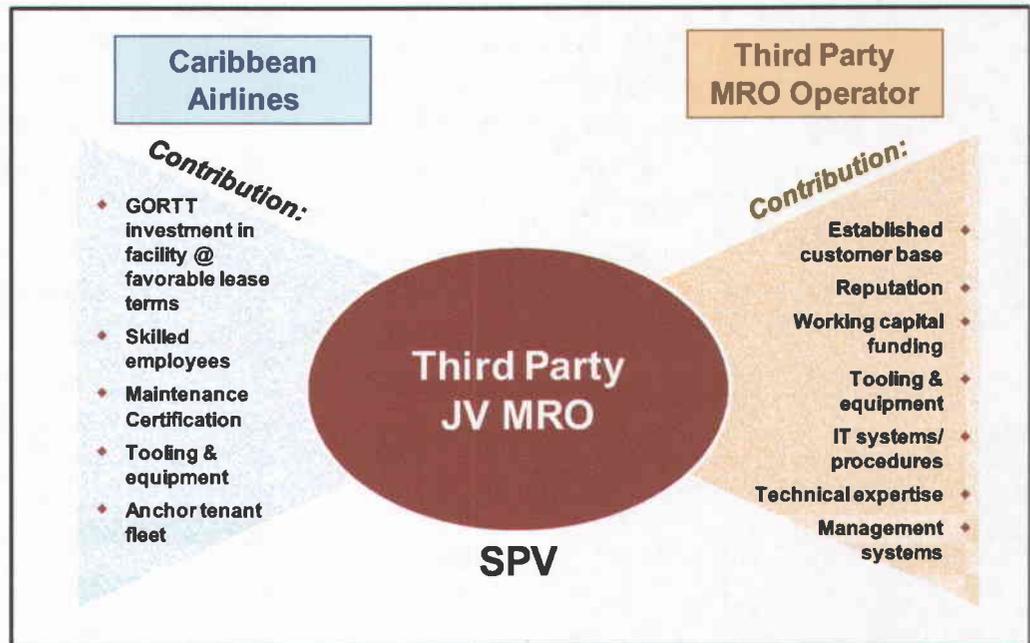
Party	2011		2012		2013		2014	
	6 months	6 months	6 months	6 months	6 months	6 months	6 months	6 months
AATT	Finalize MRO Infrastructure Plan		Tender Process		Airside Construction Improvements			
CAL	Identify/Select JV Partner		Negotiate JV Agreement - CAL MRO Spinoff		Implement JV Business			
Ministry of Works & Transport	Procure GORTT Funding		Oversee Development Process					

Source: SH&E

The Ministry of Works & Transport will play a highly important role in the process of realizing this business, both by organizing the necessary GORTT funding (in consultation with the Ministry of Finance), and overseeing the execution of CAL’s objectives as well as those of the Airport. AATT will also be key to overseeing the development process related to the proposed MRO hangar infrastructure.

Separate from this, CAL must seek out a Joint Venture (“JV”) partner to launch the third party MRO business. This involves a number of critical activities including finding a compatible JV partner, creating a third party MRO organization out of the current maintenance department of the airline (in conjunction with the JV partner) and constructing the MRO hangar on the site prepared by AATT. The new MRO JV would take over all of the heavy maintenance activity for the CAL fleet, as well as work on aircraft of other customer airlines. Below is a suggested concept for the contributions to the joint venture made by CAL and the third party operator.

Exhibit 1-10: Possible Contribution to the 3rd Party JV Partnership



Source: SH&E

While SH&E has developed a strategic plan for planning and executing an MRO joint venture there are a range of decisions which will be required to be made in order to complete the process.

In advance of negotiations, an assessment should be made of the optimum value and terms of any proposed partnership from the Trinidad stakeholders' perspective, based on detailed forecast of future activity, revenue generation and cash flow that the facility can generate. Other terms and conditions to be evaluated would include the optimum duration of the agreement, services and assistance that each of the partners would provide, including contributions such as training, equipment upgrades, marketing assistance and guarantees. For example, would a partner MRO that is affiliated with an airline — be able to guarantee a certain amount of activity would flow to the Piarco MRO from its airline partner?

GORTT should initiate discussions with as many potential targets as possible to ensure that there is a competitive dynamic. There are two possible approaches to the process, a formal tender process or targeted negotiations with qualified operators. A formal tender process will ensure that there will be competition in the process, but the downside of the process is that it is complex, time-consuming and may not ensure that bids will be received from the most favorable potential partners. As an alternative, a less formal negotiating strategy can be adopted, with the Trinidad

stakeholders announcing that they are approaching targeted partners for informal discussions and negotiations.

SH&E identified global MRO operators who potentially could become JV partners in this venture. In addition, we have prepared marketing information and a sample tender document that can be used to attract and establish the framework for negotiations. We believe that Trinidad has the opportunity to develop a world class third party MRO business at Piarco and that it will result in considerable economic and ultimately financial benefit to GORTT. However, this is still much work to do including important decisions regarding the JV arrangement, financial commitments of the government and timing of the process.

2

**TASK 1 – CURRENT AND PLANNED AIRPORTS
COMMERCIAL ASSETS AND CAPACITIES****2.1 INTRODUCTION AND SUMMARY****2.1.1 Background**

SH&E has been retained by the Airports Authority of Trinidad and Tobago (AATT) to conduct a feasibility study on the proposed Regional Air Cargo and Aircraft Maintenance Hub project at Piarco International Airport (“Piarco” or “the Airport”). This study has been funded by a grant from the United States Trade and Development Agency (USTDA).

Located 15 miles southeast of the capital city of Port-of Spain, on the island of Trinidad, Piarco International Airport is the largest commercial airport in the Caribbean; the Airport is served by 15 international airlines and seven cargo air carriers. In contrast to its sister island of Tobago, which relies heavily on tourism for its economy, the island of Trinidad has what is considered one of the strongest economies in the Caribbean, based on the petroleum and natural gas industry. Trinidad is the largest exporter of liquefied natural gas (LNG) to the U.S., providing 7% of its LNG foreign imports. The national carrier is Caribbean Airlines which started operation on January 2007 after consolidation of the previous carrier BWIA West Indies Airways in 2006. The airline presently flies a fleet of eight B737-800 and five Bombardier Dash 8 aircraft to 14 destinations worldwide.

Given the role of Trinidad and of Piarco International Airport relative to the U.S., the Caribbean, and South America, it is not surprising that there has been sustained interest in expanding existing aviation and airport-related service facilities at Piarco as well as creating new facilities. As a result, there have been multiple studies and land use plans prepared for Piarco, trying to integrate and expand such facilities within the Airport. However, because of the rapid development of the Airport, these studies do not address current aviation requirements for Trinidad and need to be updated.

In order to facilitate that process, this study is designed to assist AATT in evaluating key business opportunities for the Airport with the highest potential revenues for the island. The first task of this study, which will be addressed in this report, covers a review of existing studies, an inventory of the existing main facilities at the Airport, and an examination of the legal environment in which the Airport operates.

2.1.2 Scope of Project

This study has been divided into seven tasks:

1. Current and Planned Airport Commercial Assets and Capacities
2. Market Assessment and Preliminary Recommendations for Commercialization Opportunities
3. Infrastructure Requirements for Commercial Development
4. Financial and Concession Structuring
5. Strategic Marketing Plan
6. Tender Documents
7. Final Report

This report covers the findings of Task 1, which is divided into eight factors:

1. Physical inspection of the airport facilities and meetings with airport management and relevant government bodies
2. Review of existing plans and studies regarding upgrading the airport facilities
3. Physical inventory of existing aviation facilities
4. Interviews with airport stakeholders including airlines and tenants
5. Review of existing contractual obligations
6. Review of economic development plans
7. Review of business development plans
8. Review of relevant policies, laws, and regulations which may impact the project

The purpose of Task 1 is to lay the foundation for the commercialization opportunities that will be defined, ranked, and executed in later tasks of this project. Interviews with key stakeholders revealed each party's concerns and future plans regarding existing and future airport infrastructure. The inventory concentrates on non-runway, non-terminal assets in order to evaluate the location and condition of existing facilities. An extensive review of prior studies (particularly land use plans) was completed in order to understand how Airport facilities have developed over time and what plans for infrastructure improvements currently exist. The literature review presented in this report will also aid in integrating projects proposed in future tasks with existing plans.

2.2 PREVIOUS STUDY REVIEW

2.2.1 Introduction

In order to place the current study in context, SH&E requested and received from AATT a series of studies that had previously been completed regarding infrastructure development at Piarco. A current Master Plan for Piarco International Airport does not exist and most of the studies reviewed below are land use plans.

SH&E reviewed four land use plans, which were written between 1989 and 2007:

- *Piarco International Airport Land Use Feasibility Study*, Bechtel Airport Development Group, August 1989
- *Piarco International Airport Feasibility Analysis*, LEA-TRA Airport Consultants, September 1992.
- *Land Use Feasibility Study Update, Piarco International Airport*, Birk Hillman Airport Consulting Services, June 2001.
- *Piarco International Airport Estate Strategic Land Use Development Plan*, All-Inclusive Project Development Services Limited (APDSL), October 2007

This chapter describes the major conclusions of each of the plans alongside the development of major Airport infrastructure during the same time period. It is necessary to understand the evolution of the Airport's land use plans in order to comprehend fully the commercial opportunities that will be evaluated and recommended in this study. In particular, this chapter will focus on how the different land use plans have addressed the cargo and maintenance facilities.

In addition to the summary of land use plans presented in this chapter, an evaluation of select recommendations from the latest (2007) land use plan is presented in Section 2.3.

2.2.2 Summary of Airport Development and Land Use Plans

In 1989, the Bechtel Airport Development Group (BADG) conducted an airport development study funded by USTDA. This study was designed to evaluate existing Airport facilities, to identify key infrastructure needs, and to create a plan for financing development of new infrastructure.

The Bechtel study made the following conclusions:

- a new passenger terminal (27,195 m²) was needed and should be relocated to the north side of Airport land

- cargo facilities (which did not exist at the time) of 17,000 m² were needed to meet growing cargo demand
- support facilities (such as fire rescue, ground handling, and maintenance) no longer met safety codes and needed to be rebuilt

The Bechtel study also included traffic demand forecasts for the period from 1990 to 2010.¹ By 2007, the study forecasted that 4.1 passengers would use the airport, compared to an actual 2007 figure of 2.4 million.

In 1991, AATT commissioned ZHA International Incorporated to design plans for a new passenger terminal to be built in the North Terminal Zone. The ZHA plan designed a terminal with an area of 38,590 m², which is more than 10,000 m² greater than that called for in the Bechtel study.

Following the submission of the ZHA design, AATT commissioned another study to evaluate the financial feasibility of the ZHA design. LEA-TRA Airport Consultants conducted the study in 1992 and concluded that the ZHA-designed terminal was too large. Instead, LEA-TRA recommended that a new terminal of 27,500 m² should be built on the north side of the airport.

After the new North Terminal (at a size of 35,964 m² and 14 international aircraft gates) was constructed in 2001, Birk Hillman Consultants, Inc (BHC) updated the 1989 Bechtel Group study and created a new 20-year land use plan. As part of the study, BHC inventoried airport assets and forecasted passengers, cargo, and aircraft operations for the period from 2000 to 2020. It was this study that first considered a re-use plan for the South Terminal Area after the new North Passenger Building had opened earlier in the year. The BHC study noted that "Given the size of the building and apron, and the accessibility to the airfield and the landside, the reuse of this [South Terminal] facility offers the opportunity for revenue generation at a minimal infrastructure cost."² BHC discussed a variety of possible uses for the south terminal facility including: an interim cargo facility, general aviation facilities, offices, and storage. The BHC study notes that the existing cargo facilities must be moved from their location to the northwest of the runway in order to extend the northern parallel taxiway. However, the study also argues that using the South Terminal Complex for cargo is a short-term solution only.³ In the long-term, BHC recommended that a new cargo complex be built in the northeast airport zone.

¹ A review and comparison of the Bechtel traffic forecast (and the forecasts presented in the subsequent land use plans) will be conducted as part of Task 3 of this study.

² Land Use Feasibility Study Update, Piarco International Airport, Birk Hillman Airport Consulting Services, June 2001, page 4-15.

³ This is an opinion shared by SH&E as will be discussed in Chapter 2.3.

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In terms of maintenance facilities, the BHC study discusses the need to relocate the BWIA (now Caribbean Airlines) maintenance facilities located in the northwest airport zone. These facilities must be moved to complete the northern parallel taxiway. BHC recommended that a new maintenance facility be built to the east of the North Terminal and north of the taxiway.

Between 2001 and the latest (2007) land use plan, the following infrastructure changes occurred at Piarco:

- AATT chose Bel Air Hotel to develop a new Airport hotel in the North Terminal Zone
- An additional site in the North Terminal Zone has been allocated for another hotel
- A new Airport Rescue and Fire Fighting Facility was built

In addition, AATT prepared several options for the re-use of the South Terminal Building including a helicopter passenger terminal, administrative offices for AATT, a corporate jet passenger terminal, and a new air cargo terminal.

In 2006, AATT commissioned an updated land use plan; the resulting document issued by All-Inclusive Project Development Services Limited (APDSL) in October 2007 makes extensive land-use recommendations including:

- A reconfiguration of the area designated for a hotel/conference/office complex to allow easier road access
- Alternatives for car parking facilities: remote parking for Airport employees; a parking garage; and a remote transport hub
- A Short-Term Lease Area in an area currently designated for the second runway (which APDSL asserts will not be needed in the near future)
- An MRO facility located in the East Terminal Zone⁴ on a site closer to the main terminal than existing plans (which called for it to be located “at the eastern extremity of the airport estate”⁵).
- A new Ground Support Equipment (GSE) facility within the East Airport Zone (and not adjacent to the sewer treatment ponds)

⁴ The APDSL study states (page 19) that “the question as to whether Caribbean Airlines Limited (CAL)...will re-establish its aircraft maintenance facilities...or be served by the MRO is outside the purview of this study.” This SH&E study will address this question in detail.

⁵ *Strategic Land Use Development Plan*, All-Inclusive Project Development Services Limited (APDSL), October 2007, page 20.

- A new fuel storage facility closer to the main terminal (the existing facility is located in the South Terminal Zone)
- A redesign of the existing AATT offices for a wellness center
- Immediate relocation of all facilities in the Northwest Airport Zone to allow for the extension of Taxiway A
- Extension of Taxiway B to the full length of Runway 10-28

The 2007 land use plan does not comment on AATT's plan for a cargo centre/village in the South Terminal Building Complex other than to relate what the plan entails. As will be discussed later in this report, SH&E believes this is a short-term solution only and another area should be allocated for long-term cargo development.

It is also important to note that APDSL reviewed a proposal to establish a Free Trade Zone (FTZ) on area east of AATT's current holdings. However, the feasibility of an Airport FTZ was not covered under the scope of the APDSL study. The idea, location, and feasibility of an FTZ will be covered in detail in this SH&E study.

2.3 FACILITY INVENTORY

2.3.1 Introduction

During a five-day period, from September 17 to 20, 2008, SH&E met with Mr. Louis J. Frederick, Deputy General Manager of AATT, Mr. Peter G. Henry, Property Manager, and Mr. Varma Joadsingh, Manager – Engineering Services, who provided comprehensive tours and briefings on the existing and projected facilities at Piarco International Airport.

This inventory concentrates on present and future facilities (Cargo, Maintenance, FBO, Hotel, and other related commercial sites), excluding the runway and terminal. An inventory is necessary to analyze the present state of existing facilities as well as their present location relative to the overall operation of the Airport. In addition to listing current facilities, SH&E has evaluated the proposed location of new facilities in the most recent Land Use Plan (October 2007). SH&E's conclusions from this evaluation will indicate whether the locations (existing or proposed) of Airport facilities can be improved in order to facilitate the operation of the Airport and eventually optimize revenues.

2.3.2 Airport Layout

The existing airport occupies an overall area of approximately 680 hectares, bordered to the north by the Oropuna River, to the west by Golden Grove Road, to the south by

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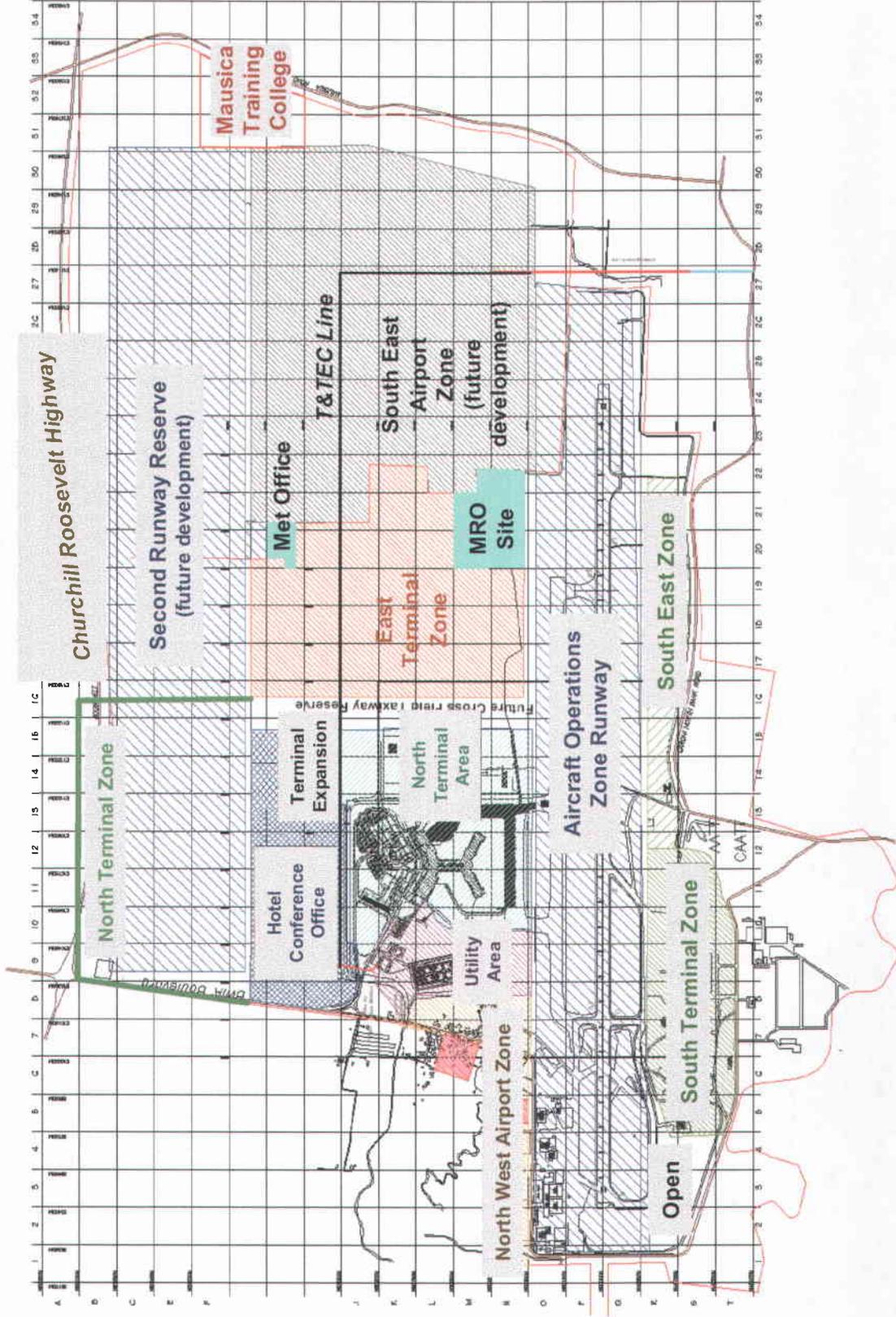
Caroni North Bank Road, and to the east by Mausica Road. The Airport currently consists of two zones: the North Terminal Zone and the South Terminal Zone (see Exhibit 2-1 below).

The Airport is surrounded by three zones which are owned by the Government, not by AATT, but which are reserved for airport development:

- The East Airport Zone located in the extreme eastern portion of the property is an agricultural area reserved for future airport expansion.
- The area directly north of the airport complex, (where the new North Terminal is located), is not built and has been reserved for the future hotel complex. Further north between the Oropuna River and Churchill-Roosevelt Highway, the North Terminal Zone Extension has been reserved for a future second parallel runway, which according to AATT officials, is targeted for implementation in the year 2020.
- The Northwest Airport Zone, located in the northwest corner of the airport area has been reserved for airport support services such as a police station, which has already been built there.

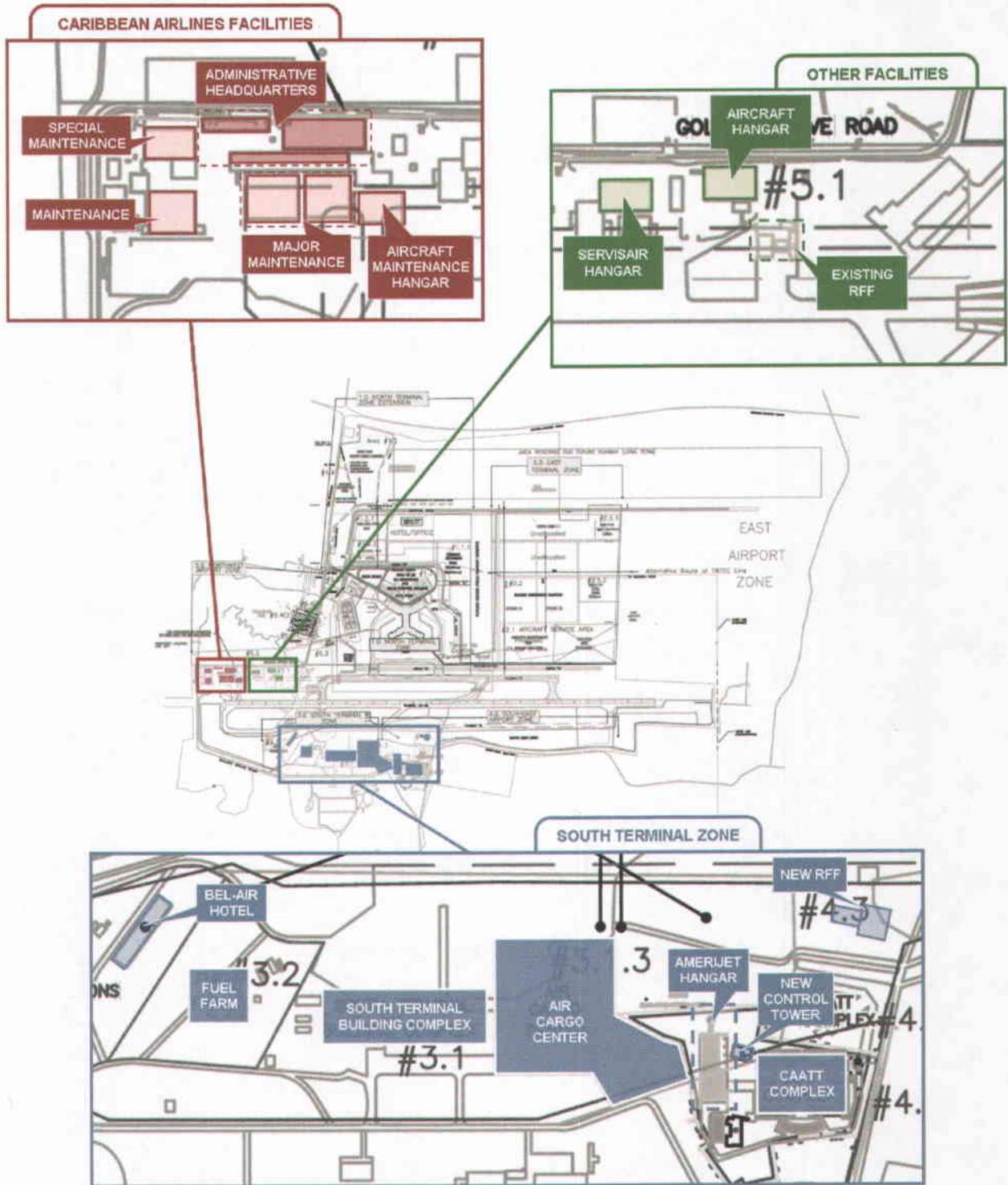
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Exhibit 2-1: Airport Layout by Zone



Source: Strategic Land Use Development Plan, Oct 2007, Figure 3.

Exhibit 2-2: Detailed Piarco Facility Layout



2.3.3 Facilities in Detail

The following facilities are included in the Airport. Some of these facilities will be discussed in more detail later in this report because of their importance in the context of this report.

- A single asphalt runway 3,200 meters long and 45.7 meter wide, with a geographic orientation 10-28, two Connecting Taxiways and one Rapid Exit Taxiway (RET). The field elevation is 18 meters Above Mean Sea Level (AMSL).
- An unfinished set of parallel taxiways with the following layout:
 - Taxiway “A”, discontinued to the east and west and reaching neither of the two thresholds, running on the north side of the runway, parallel to the new passenger terminal apron.
 - Taxiway “B” running partially on the south side of the airfield (near the old South Terminal), from Threshold 01 to a cross-over to Taxiway “A” through the runway.
- A new Passenger Terminal Building (PTB) located on the north side of the Airport, (referred to as the North Terminal Zone), with a total area of 36,000 m², 14 gates, and capable of handling 1,500 peak hour passengers.
- A complex of facilities occupied by Caribbean Airlines, located in the northwest corner of the Airport, north of Threshold 10, and including maintenance, administrative and miscellaneous storage facilities. These facilities have been the main factor impeding the extension of Taxiway “A” near the new North Terminal, for a direct access to Threshold 10, instead of the actual procedure, which involves crossing the runway to connect to Taxiway “B.”
- A complex of cargo facilities located south of the airfield, (referred to as the “South Terminal Zone”) near the Old South Terminal, on the continuation of Golden Grove Road. Some of the cargo facilities are also located next to the Caribbean Airlines Maintenance Complex on Golden Grove Road. There is a total of 16,000 m² of cargo storage and handling space at the Airport handling approximately 32 million kg per year.
- An existing Rescue and Fire Fighting (RFF) facility, with a Category 9 ICAO classification, located east of the Caribbean Airlines Maintenance complex and adjoining cargo hangars. This existing facility, although well-located, does not meet adequate standards for crew accommodations, and, because of

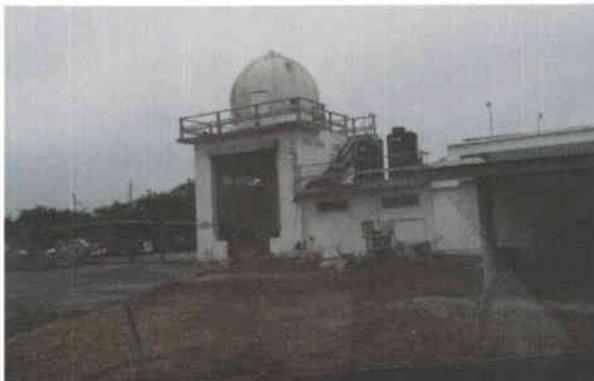
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its physical conditions, does not facilitate a smooth operation of the facility. A new RFF facility is under construction and is almost completed. However, because of code violations, it cannot be occupied until these violations are corrected.

- A Fuel Farm located within the South Terminal Zone with a total capacity of 460,000 gallons of Jet A fuel, of which 240,000 are stored in two large cylindrical vertical tanks, and 220,000 gallons are stored in eleven horizontal fuel tanks. Separate 20,000 gallon horizontal tanks store Avgas. There are plans to possibly relocate the Fuel Farm, as part of a plan to bring a pipeline directly from the oil fields to the Airport. The new location for the Fuel Farm has not been confirmed.
- A small on-site airport hotel (“Bel Air”), located at the southeast corner of the Airport area, south of Threshold 10, opposite the Caribbean Airlines complex. The existing jog in taxiway “B”, before reaching Threshold 10, was created in order to avoid the demolition of that hotel. Any straight extension of Taxiway “B” will likely require the demolition of the hotel.
- Helicopter hangars and maintenance facilities for the firm Bristow Caribbean, the largest helicopter charter company at the airport serving the oil companies by carrying employees to and from the drilling oil rigs. Another smaller firm, Evergreen International, is also trying to start a helicopter business there.
- A facility occupied by the Trinidad and Tobago Defense Forces, in this case more specifically, the Coast Guard, with a hangar for aircraft, and adjacent living quarters. It is located west of the existing Bel Air Hotel.

Also located west of the Bel Air Hotel, and north of the Coast Guard is the existing Meteorological Station (Exhibit 2-3). It is in poor condition; a new facility is now being planned and will be located west of the new RFF.

Exhibit 2-3: Existing Meteorological Station



The Old South Terminal is now in the process of being renovated and subdivided into different facilities, the most important of which is new Administrative Offices for AATT in the southwestern corner (Exhibit 2-4). The southeastern corner of the building was renovated to accommodate the cargo facilities of Aviation Business Limited (ABL). Plans are to tear down the existing concourse and work on additional renovations to accommodate a new FBO.

Exhibit 2-4: New AATT Administration Office



East of the Old South Terminal, and the Amerijet Cargo Hangar, work is underway for new facilities for the Civil Aviation of Trinidad and Tobago (CAATT). As part of this new facility, a new nine story high Control Tower is being built.

The area north of the vehicle parking for the new North Terminal is not developed and has been reserved for future hotel developments, including a replacement site for the Bel Air Hotel. West of the North Terminal is a large heavily wooded area (referred to in the Airport Layout Plan in Exhibit 2-11 as East Terminal Zone), and

reserved for a future Maintenance Repair Overhaul (MRO) facility and a future Bonded Warehouse Facility.

2.3.4 Facilities For Special Consideration

The scope of this report is to concentrate on existing landside facilities, excluding the runway and other airside facilities, unless they affect the landside facilities, as in the case of Taxiways "A" and "B". The New North Passenger Terminal is also excluded. Facilities which are in the process of being planned, or are now being implemented, such as the Cargo Village, must also be considered. Among these existing and projected landside facilities, special consideration must be given to the cargo, aircraft maintenance, and other commercial facilities, such as the projected hotels, because of the particular interest that they have attracted from outside investors or present stakeholders at the airport. These facilities, which will be divided into "existing" and "projected," will be analyzed in more detail in this section of the report.

Existing Facilities

Cargo Facilities

The seven cargo carriers now serving Piarco (in addition to the belly cargo traffic carried by passenger carriers) have generated the need for a minimum of four major cargo handling and storage companies at the Airport and numerous freight forwarders. Because of this increased traffic, a new cargo complex (or Cargo Village shown in Exhibit 2-11) has been planned and is now being implemented in a previous vehicle parking lot east of the Old South Terminal. This location has been selected as part of the AATT plan for the conversion of the old terminal building into a variety of facilities, including, as has been previously mentioned, a 3,000 square meter cargo facility for Aviation Business Limited (ABL) (Exhibit 2-6), new administrative offices for AATT (Exhibit 2-4), a new helicopter fixed base operator (FBO) Facility, with waiting lounges (Exhibit 2-5), and possibly other future facilities. The old concourse and gates will be torn down to create additional aircraft parking apron. New hangars will be built in the parking lot to accommodate the other three major cargo handlers. The existing hangar facilities of Amerijet, which is the largest cargo handler at the airport, are already located in that area, probably due to their proximity with the Old South Terminal when it was operative.

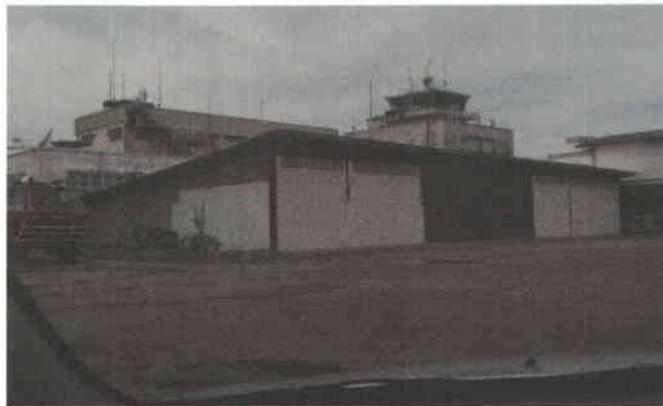
Exhibit 2-5: Helicopter FBO



Aviation Business Limited (ABL)

As previously mentioned, ABL Cargo has recently moved into a 3,000 square meter cargo facility, which is the newly reconditioned area of the Old South Terminal (Exhibit 2-6). SH&E was not allowed to take pictures inside any of the cargo facilities, but, compared to the other facilities presently in use, particularly those of Servisair, this storage area appeared well-organized and in obviously good condition, since it is relatively new.

Exhibit 2-6: ABL Cargo Facilities



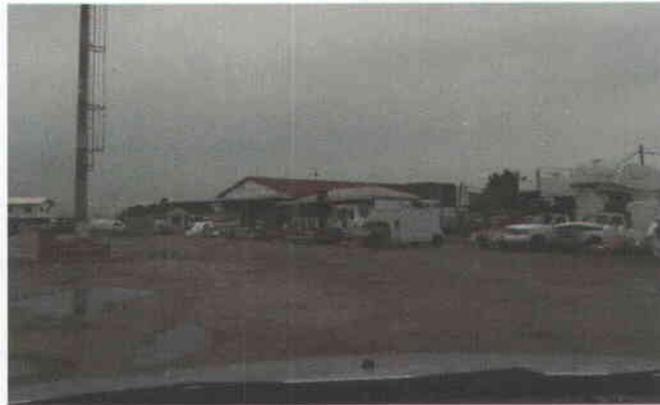
Amerijet

Amerijet is the largest cargo handler at Piarco, which, unlike the other handlers, with the exception of the airlines, operates its own fleet of all-cargo aircraft with flights to and from the United States four times a week, and other flights to many destinations

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throughout the Caribbean, Central and South America. It now occupies 4,700 m² of cargo storage area at Piarco.

Exhibit 2-7: Amerijet Cargo Facility



Servisair

The second largest cargo handler at the airport occupies approximately 4,500 square meters of storage space in a hangar which is not in good condition (Exhibit 2-8). The hangar is not located in the Old South Terminal area, but instead, is part of a group of other older hangars near the Maintenance Facilities complex operated by Caribbean Airlines, in the northwest corner of the airport, north of Threshold 10 (see Plan in Exhibit 2-2). As can be seen in Exhibit 2-8, the hangar is not in good condition. The outdoor cargo handling area and the interior storage area are both very cramped. Servisair handles the belly cargo of the more important airlines at Piarco, including American, Air Canada, Continental, and Caribbean Airlines

Exhibit 2-8: Servisair Cargo Facilities



Piarco Air Services (PAS)

PAS runs an unusual operation in which the company does not operate any storage warehouse facilities on the airport grounds, but, instead, transports the cargo from the aircraft directly to its remote storage facilities located in El Socorro, a community just a few kilometers west of the airport. The cargo is transported in “specially fitted bonded vans.”⁶

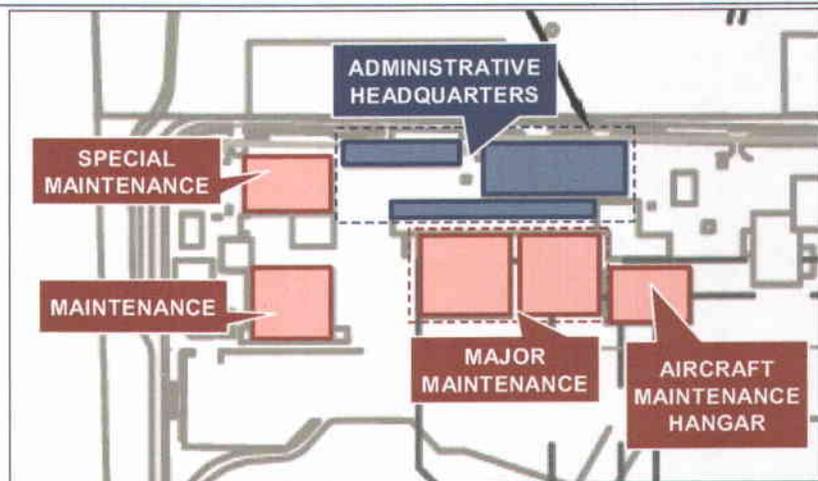
Caribbean Airlines

Caribbean Airlines does not operate a cargo handling commercial business but operates a 3,200 square meter warehouse near its maintenance complex to handle its own belly cargo.

Aircraft Maintenance Facilities

There is presently only one important commercial Aircraft Maintenance Facility at the Piarco International Airport operated by Caribbean Airlines, and located on the north side of Threshold 10.

Exhibit 2-9: Caribbean Airlines Maintenance Facilities



As can be seen in Exhibit 2-10, the facilities consist of two covered, but open, hangars where maintenance is performed; only the attached office and storage areas are enclosed. The east and west hangars have an area of 2,400 m² and 3,000 m², respectively; both facilities appear to be in need of repair. Although local climate conditions (year-round warm temperatures) would not require that the facilities be

⁶ As stated in PAS sales literature.

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enclosed, other conditions, such as dust, wind, and blowing rain make working conditions less than desirable and could impede adequate maintenance work. And, since Caribbean Airlines can now perform “C Check” maintenance on all eight of their new B-737-800 aircraft (the latest model of Boeing’s popular sophisticated aircraft), it is highly desirable that the work be performed in an enclosed controlled environment. In addition to the two main hangars, Caribbean also operates a maintenance facility for smaller aircraft (west of the two hangars), and an avionics repair facility.

Exhibit 2-10: Caribbean Airlines Maintenance Hangars



Another factor affecting the maintenance complex, and which will require its relocation, is its present location relative to the runway. At the present time, all aircraft using Taxiway “A” to reach Threshold 10 for take-off (the prevalent take-off direction), must cross the runway to connect to an extension of Taxiway “B” on the south side of the runway. This maneuver is necessary because, as previously mentioned, Taxiway “A” was never extended to Threshold 10 because of the presence of the Maintenance complex. But, on the other hand, this additional maneuver also limits the capacity of the runway and must be eliminated as soon as possible.

The only relatively important aircraft maintenance hangar operated by a company other than Caribbean is the facility now operated by Bristow Caribbean, the helicopter company previously mentioned. There are also other smaller private or charter aircraft maintenance facilities located east of the Caribbean complex, along the north side of the runway.

Fixed Base Operators (FBO)

There is one major FBO and some other minor operators at Piarco.

Bristow Caribbean

Bristow Caribbean is a British helicopter shuttle company specialized in providing service to the oil drilling platforms located in the Caribbean Sea. During the site visit, SH&E witnessed the continuous landing and taking off of its helicopters. They operate the FBO terminal and waiting room located in the Old South Terminal (shown in Exhibit 2-2)

Evergreen International

Evergreen International is an American helicopter charter company trying to penetrate the market to provide the same service as Bristow Aviation, and any other charter service. Its operation is very limited at this time.

Briko Air Services

Briko Air Services is an FBO which operates a flight school and provides charter services at the Airport. It is also located east of the Caribbean complex, on the north side of the airport.

Hotel Facility

The Bel Air Hotel, which is more like a motel, was previously described in the overall description of the Airport facilities, where it was also mentioned that the partial Taxiway "B" was deviated, as indicated in the drawing, in order to avoid the demolition of that motel. Eventually, there will be a need to extend Taxiway "B" completely parallel to the south side of the runway. At such time, it will be necessary to tear down the hotel in order for the taxiway to be straight. In addition, this facility is not up to standards and does not have many clients.

Proposed New and Relocated Facilities

It was mentioned earlier in this report that there are new facilities being proposed to improve services and optimize revenues at the Airport. At the same time, there are plans to relocate some of the existing facilities to expand the operation of the Airport. Some of these facilities have already been described above; what follows is a description of those which have not yet been described. The information on these new, and/or relocated, facilities has been obtained from a Land Use Plan⁷ provided to SH&E by AATT and from discussions with Airport management.

⁷ *Strategic Land Use Development Plan*, All-Inclusive Project Development Services Limited (APDSL), October 2007.

The Land Use Plan indicates that the areas north and east of the new North Terminal have been totally subdivided for, either airport services (MRO, Bonded Warehouse Complex, Unallocated, etc.), or commercial use (Bel Air Hotel, Hotel Site, Hotel /Office). No area has been allocated to the future terminal, which will be certainly needed, if there is a need for the new runway. It is assumed that the large area identified as East Airport Zone belongs to AATT and could be available for the construction of future facilities. This area is heavily wooded and would likely be difficult, and costly, to build on. Therefore, it can be used for a future terminal (Terminal 2) if the second runway is built. However, AATT must be made aware of the fact that to build a second new terminal so remote from an existing terminal is impractical and difficult for passenger transfer operations (most likely requiring a shuttle bus system). The analysis of the various proposed locations will be made based on the premise of the use of the general area directly east of the existing North Terminal, but with the understanding that, because of long-term considerations of the need for a new terminal, that area should be reserved for the second new terminal.

Cargo Village Location Evaluation

The Cargo Village concept involves combining all the cargo facilities into one complex located in an area east of the Old South Terminal and incorporating part of that terminal (see #3.1.3 in Exhibit 2-11).

This location must be considered temporary, given the long-term plans for the development of the Airport. It is adequate for the short term need because it makes use of the existing aircraft parking apron of the Old South Terminal, an area which will be further increased when the concourse is demolished. In addition, the presence of both ABL (in the renovated Old South Terminal), and Amerijet (adjacent), already constitutes the beginning of the Village. However, it is recommended that any new facility (to replace Servisair, for example) be built with the idea of being relocated, for the following reasons:

- *Long Term Airport Development to the north.* With the long-term plans of having a second parallel runway to the north, between the Oropuna River and Churchill-Roosevelt Boulevard, with a cross-field taxiway between the two runways running east of the New North Terminal, the center of gravity of the airport is shifting to the north. Given that, in spite of the seven air cargo carriers, the majority of the cargo is still carried by passenger aircraft as belly cargo, it is more adequate for the future long-term Cargo Village to be located between the two runways.
- *Avoid the transport of Cargo Pallets across the runway.* The present location of the Cargo Village requires pallets to be towed across the runway

from the passenger aircraft parking apron to the hangars. While this might be acceptable on a temporary basis, it is not in the long-term.

- *The existing Cargo Village site is likely too small for long-term.* Given the investment that AATT is now making to convert part of the Old South Terminal to its Administrative Offices, the open area east of the terminal building (#3.1.3 in Exhibit 2-11) appears relatively small for long-term use.

A possible location for the new Cargo Village is the area now assigned to the Bonded Warehouse Complex (#2.2 in Exhibit 2-11). However, the site orientation must be changed, even taking into consideration the use of the “unallocated” sites, in order to allow easier access to the Village.

New Maintenance, Repair, Overhaul (MRO) Facility

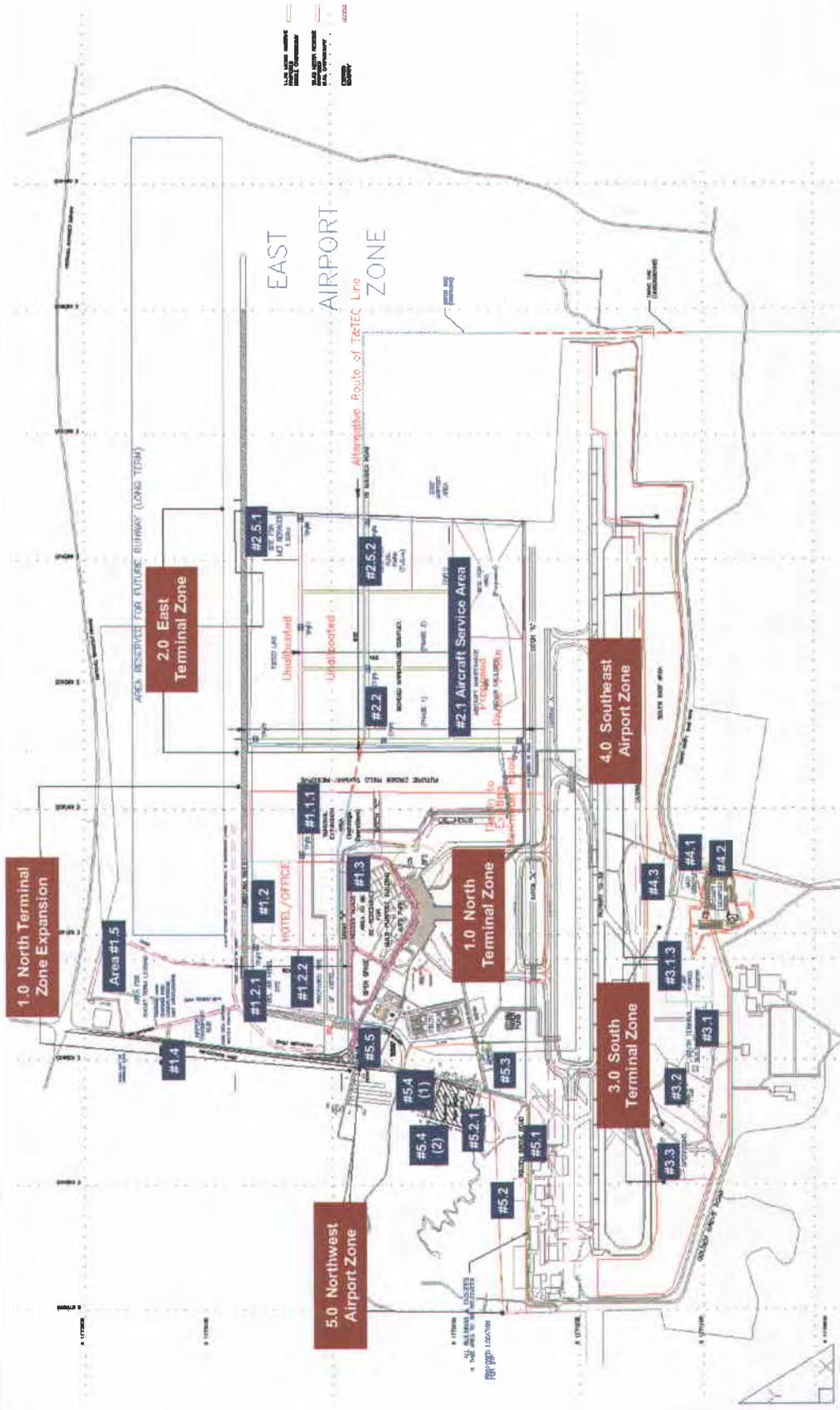
There have been many proposals to build a new MRO at Piarco dating back to 1992. The new facility could also attract airlines which now use facilities in Miami or even in Canada. The proposed site for the MRO and another major Aircraft Maintenance Facility, (most likely for Caribbean Airlines), is indicated by #2.1 in Exhibit 2-11.

The following comments can be made about the two sites designated in the Land Use Plan as MRO and Aircraft Maintenance Repair Facility:

- The two site locations seem relatively large, if the proportionate scale is taken into consideration.
- Aircraft Maintenance Facilities do not need to be located so close to the terminal area.
- An alternative location of the MRO and Maintenance Facilities is the proposed location of the Cargo Village, next to the Old South Terminal.
- If the decision is made to keep these facilities in the general area east of the North Terminal, the orientation of the site should be modified for better access, even taking into consideration the use of the “unallocated” sites.

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Exhibit 2-11: October 2007 Land Use Plan



Source: Strategic Land Use Development Plan, All-Inclusive Project Development Services Limited (APDSL), October 2007.

New Hotel Facilities

The 2007 Land Use Plan indicates an area (#1.2 in Exhibit 2-11) in front of the vehicular parking of the North Terminal Building for a hotel/office complex. This area has been divided into parcels, one of which is a replacement for the Bel Air Hotel (#1.2.1), and the other (#1.2.2) is shown as a combination of hotel and offices. SH&E is aware that the deal for the site closest to the terminal was awaiting Airport Board approval and there were other hotels interested in the other site. No details were given on the possible dates for implementation.

The group of hotel site allocations seems crowded and seems to block the entrance to the passenger terminal, and, above all, block the connection between the terminal and the future second runway. A careful analysis must be made of those relationships prior to confirming these site allocations.

Temporary Aircraft Parking

SH&E was asked to consider a possible location, which would not interfere with the normal operation of the airport, for an area to be used for the temporary parking of 40 aircraft. SH&E computed that a total area of 23 hectares was required, based on the following breakdown of aircraft types:

- (20) Group C Aircraft (B-737)
- (15) Group D Aircraft A-330)
- (5) Group E (B-747 or B-777)

After evaluating the most available site within a short period of time, SH&E recommends that an area of 23 hectares be prepared at the location now assigned to the MRO and Proposed Aircraft Maintenance.

Conclusion

Airports are in a constant state of change and it is necessary to continuously reset the parameters which are more conducive to their development. One of these critical parameters is the availability of land for the airport to expand in the most efficient manner, particularly when land is scarce. Although there seems to be land available for the future, Piarco International Airport does not have an abundance of land and what is presently available must be used judiciously.

2.4 INTERVIEWS WITH AIRPORT MANAGEMENT, TENANTS AND OTHER STAKEHOLDERS

2.4.1 Introduction

SH&E consultants conducted in-depth interviews with AATT managers and Airport tenants during site visits to Piarco International Airport in August of 2008. Interviews with Airport management covered a broad range of topics, including current Airport traffic and operations, revenues and expenses, investment and expansion plans, previous commercialization studies, and the needs of different Airport users. Interviews with Airport tenants and stakeholders such as airlines and cargo handlers focused on the evolution of their business, their growth plans, and their evaluations of current and planned facilities at the airport.

2.4.2 Summary of Interviews

The SH&E team interviewed the following POS stakeholders:

Airport Management

- Sandra Perkins, former AATT General Manager
- Louis Frederick, AATT Deputy General Manager – Estates Planning and Business Development⁸
- Hayden Newton, Corporate Secretary/Legal Advisor

Airport Tenants

- Simon Pantin, Director of International Operations, Amerijet
- Parisram Jaggernath, Manager of Heavy Maintenance, Caribbean Airlines
- Eugene Shairsingh, General Manager, Servisair

Interviews with Airport Management

SH&E's meetings with AATT management covered a wide range of matters relating to Airport capacity, traffic, finances, land use and development plans. Specific topics of discussion included the following:

- Current landholdings and land use

⁸ Mr. Frederick is now the acting General Manager.

- Current and previous land use studies and plans
- Evolution of airport facilities
- Preparation for air traffic from the April 2009 Summit of the Americas
- Status of new airport hotel development
- Airport capacity and traffic trends
- Airport finances, including revenue composition, government support, operating expenses, debt and investment priorities
- Airline, cargo handling and general aviation user needs
- Plan for the development of a full-service FBO that will service business jet and VIP traffic
- The AATT's relationships with Caribbean Airlines
- The airport's fuel contract with National Petroleum
- Commercialization opportunities and priorities

Interviews with Airport Tenants and Stakeholders

In meetings with Amerijet, the team's discussions covered the following matters:

- The evolution and growth of Amerijet's Piarco service; performance of specific routes
- Types of cargo carried and directionality
- Evolution of local cargo market
- Flow of local and transit cargo at Piarco
- Difficulties in transporting live animals via Piarco
- Cold storage capacity at Piarco
- Issues with Piarco customs (processing times and fees)
- Amerijet's current space requirements at Piarco
- Anticipated space requirements in future
- Competition from ocean cargo
- Ground service equipment storage and repair space needs
- Issues with current mail transshipment processes
- Fuel costs at Piarco and other airports in the region

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- Potential for new service at Piarco
- Anticipated benefits to Amerijet from possible Airport FTZ status
- Comparison of Piarco and other Caribbean airports in terms of attractiveness as a hub location

SH&E's discussions with Caribbean Airlines covered the following matters:

- Role of Heavy Maintenance Department within Caribbean Airlines (CAL)
- CAL's past and present usage of external MRO providers
- CAL's in-house heavy maintenance capabilities and certifications
- Recent in-house completion of C-Check on 737-800
- Current and anticipated turnaround times and labor inputs
- Maintenance labor rates and other CAL cost advantages
- Plans to offer third-party heavy maintenance services (aircraft models, maintenance procedures and number of maintenance lines)
- Market potential and potential customers for third-party heavy maintenance by CAL
- Issues with current maintenance hangar space at Piarco
- Facilities needed to support expanded heavy maintenance services (size, location and building specifications)
- Current maintenance staff, future requirements, and sourcing of trained aircraft maintenance technicians

SH&E's discussions with Servisair covered the following matters:

- Ground handling and cargo handling services provided by Servisair at Piarco
- Evolution of local cargo market and air service
- Types of cargo carried by Servisair and other cargo companies
- Growth of competition from ocean cargo; problems with local ports
- Problems with the previous cargo terminal at Piarco
- Airport cargo handling constraints
- Prospects for additional cargo airline service at Piarco
- Fuel prices at Piarco relative to other airports in the region

2.5 AIRPORT CONTRACTS

2.5.1 Introduction

AATT has contracts with many different parties for the use of its services, facilities and land, and for the right of external parties to sell goods and services at the airport. In terms of value, the most important airport contracts are those it maintains with airlines, cargo companies, its fuel supplier, general aviation service providers, airline caterers, and passenger concessions operators.

2.5.2 General Rates and Charges

The AATT maintains a schedule of charges levied on airlines, passengers and cargo handlers which is updated on an annual basis. While not all charges are explicitly contractual, they are approved by the government and airlines with regular service to Piarco are signatories.

Airline Charges

The Airport charges airlines (and general aviation operators) for use of the runway and other airport facilities through the imposition of landing and aircraft parking fees, as well as Fuel Throughput Fees, which are levied on the volume of fuel they purchase from an airport fuel supplier at the airport. Airlines usually also pay to rent check-in counters, offices, hangars and other space at the airport. The charges are as follows:

Landing Fee: Aircraft operators are charged US\$3.85 per 1000 kg of the aircraft's Maximum Takeoff Weight (MTOW), with a minimum fee of US\$12.00. The charge does not apply to flights that return to the airport within 45 minutes of takeoff without having stopped elsewhere or test flights after repairs. Training flights are charged only 25% of the landing fee.

Aircraft Parking Fee: While the first six hours of aircraft parking are free, they are charged 15% of the Landing Fee for each twenty-four hours or part thereof after those six hours.

Fuel Throughput Fee: The Airport charges a throughput fee of US\$0.001 per liter of fuel purchased through the Airport's fuel supplier. This charge is intended to cover the costs of fueling infrastructure and related costs.

Terminal Rental: Airlines and their handling agents are charged the following rates to rent terminal space:

- Check-in/Counter Space: US\$47.42 per square meter per month

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- Storage/Baggage Space: US\$27.27 per square meter per month
- VIP Holdroom: US\$24.24 per square meter per month
- Line Maintenance/Ramp Support: US\$21.06 per square meter per month
- Office Space: US\$18.18 per square meter per month

Hangar Rental: Airlines and maintenance providers are charged US\$3.50 per square meter per month for hangar space.

Cargo Fee: The airport levies a USD\$0.01 charge per kilogram of air cargo unloaded by the airline or cargo company.

Passenger Fees

The airport charges the following fees on a per-passenger basis, some of which are paid by the airline directly while others are collected on the passenger's ticket:

- Concourse Fees: US\$5.00 for international enplaning passengers (paid by the airline)
- Security Fee: TT\$25.00 per international passenger (25% of the TT\$100 International Departure Tax, of which TT\$75 is Government Departure Tax and TT\$25 is the AATT Security Fee)
- Passenger Facility Charge: TT\$100 per international passenger (collected by airline via ticket, remitted to AATT)

2.5.3 Rentals

The airport currently leases land and buildings to the following external parties:

- Bel Air Hotel: The hotel has leased 9,130 m² of land at a rental rate of US\$ 0.19 per square meter per month since 1980. This hotel is due to be replaced in the near future.
- Bel Air Leasing Company: This Company is developing a new hotel to replace the Bel Air Hotel, leasing 56,495 m² of land for 50 years at a monthly rate of US\$ 0.049 per square meter. (The annual rent was increased by 100% in 2005, after the company failed to build the hotel within the agreed timeframe.) In addition to this rental rate, the hotel will also pay a percentage of its revenue to AATT.
- Allied Caterers: This airline catering company has a 30-year lease on 12,209 m² of airport land, on which it maintains its own facilities. It pays AATT a lease rate of US\$ 0.049 per square meter of land per month, plus 6%-8% of its gross catering revenue.

- Amerijet: The cargo airline leases 4,514 m² of land and cargo warehouse space, paying a monthly rate of US\$ 0.165 per square meter of uncovered land and US\$ 0.61 per square meter of warehouse space. This rent increases by 10% every five years.
- Jet Pak Services: This courier company leases 3,734 m² of land and office/warehouse space from the airport, paying a monthly rate of US\$ 0.15 per square meter of uncovered land and US\$ 0.55 per square meter of warehouse space.
- Briko Air Services: This general aviation service provider and flight school leases 7,985 m² of land, on which it maintains its own buildings. It pays a monthly rate of US\$ 0.15 per square meter of land.
- Sun Island Aviation: This general aviation service provider leases 4,170 m² of land, paying a monthly rate of US\$ 0.38 per square meter of land.
- Guardian Holdings: This investment company leases 4,049 m² of land and office/hangar space, paying a monthly rate of US\$ 0.63 per square meter of uncovered land and US\$ 0.98 per square meter of office/hangar space.
- Aviation Business Limited: This cargo operator entered into a five-year lease for 2,972 m² of cargo warehouse space in 2008, paying a monthly rate of US\$ 3.50 per square meter. As of the end of 2008, it had not yet begun operations.

2.5.4 Fueling Contract

National Petroleum is contractually the sole fuel supplier at Piarco International Airport, providing fuel and fueling services directly to airlines and other aircraft operators. Because of the relatively high fuel prices it charges aircraft operators, the airport may seek to alter National Petroleum's monopoly position or impose other measures to ensure that fuel prices at the airport remain competitive. However, this is a highly political issue.

2.5.5 Concessions

The AATT also has contracts with food, retail and other concessions that sell their goods and services to passengers and other external customers. The fees charged are as follows:

- Retail, Food and Beverage Concessions: These concessions pay 10% of their gross sales to the Airport, except for alcohol and tobacco sale, on which they pay 12% of gross revenue.

- Ground Handling Agents: Handlers such as Servisair pay 5% of their gross revenue from third-party handling

2.6 REVIEW OF TRINIDAD & TOBAGO ECONOMIC AND BUSINESS DEVELOPMENT PLANS

2.6.1 Introduction

Trinidad & Tobago's national development plan, "Vision 2020", aims to establish the country as a developed nation by the year 2020 through a broad range of programs and investments in infrastructure, education, research, social services and government reform. Vision 2020 includes a number of Airport development projects, but there are also many non-airport economic development programs and policies in the plan that may impact the Airport and its commercialization prospects directly or indirectly. In addition, there are several plans and policies outside the framework of Vision 2020 that may affect Piarco's commercialization prospects. In this section, we review Trinidad's economic and business development plans, both public and private, and assess their potential implications for the specific Airport commercial ventures evaluated in this report. Certain policies and laws are also examined from a legal standpoint in more detail in Section 2.7 of this report.

2.6.2 Economic and Business Development Programs

The Government of Trinidad & Tobago has implemented, or is in the process of implementing, a number of programs and policies designed to stimulate foreign and domestic investment and maximize the competitiveness of local industries. These programs and policies, which range from tax incentives and regulatory reforms to research projects and infrastructure development, are largely focused outside the energy sector, where the country is already a top producer and exporter. Some of the initiatives described below could directly impact the Airport's commercialization, while many of them will have only an indirect impact, if any.

Venture Capital Incentive Programme

The Venture Capital Incentive Programme, launched in 1996, is designed to encourage equity financing for small and medium businesses through the provision of a tax credit for qualified venture capital investors. To qualify, a venture capital company (VCC) must be a newly registered Trinidad & Tobago company with authorized capital of between \$5 million and \$20 million. It must raise at least \$500,000 in paid-up capital and begin making equity investments within one year of its initial registration and invest at least 80% of its capital in one or more qualified

investees by the end of its second year. Qualified investees are start-ups or existing Trinidad & Tobago companies with less than \$3 million in capital and fewer than seventy-five employees. The VCC must hold each investment it makes for between five and ten years, after which it can cash-out through a private sale or IPO. The incentive for VCCs is a tax credit of 30% of the amount invested by each investor, which can be carried forward over multiple years. As of 2008, there were three qualified venture capital firms operating under the program.

Impact on Airport Commercialization: Although the venture capital tax incentives could have a positive effect on new business in Trinidad, it will not have any significant effect on Airport commercialization. While venture capital firms could be a source of funding for an MRO venture located at the Airport, the likely size of the investment needed and the fact that a state-owned company, Caribbean Airlines, would be a likely stakeholder, would almost certainly mean that this incentive program would not apply.

Tax Holidays for Manufacturers

Under T&T's Fiscal Incentives Act, some manufacturers may be granted full or partial tax holidays of up to ten years. In addition, exemptions from customs duties and VAT on the construction of an approved project may also be awarded, although only to locally incorporated companies. Such incentives are granted on a discretionary basis by the Ministry of Trade and Industry and are restricted to capital-intensive enterprises investing in excess of TT\$50 million, companies whose products are manufactured exclusively for export, and manufacturers that use a significant portion of local inputs. Recent examples of these concessions include several large petrochemical plants that were granted five-year tax holidays.

Impact on Airport Commercialization: While tax holidays can help to attract manufacturers to Trinidad, which could in turn create new tenants for an airport industrial estate, the likely impact quite limited. However, if an aircraft MRO facility can qualify as a manufacturing company and therefore be eligible for a tax holiday, it could have a significant positive impact on that venture.

Tax Holidays for Hotels

Under the Tourism Development Act, newly built or renovated hotels are also eligible for a tax exemption on profits for up to seven years, along with import duty exemptions on building materials and hotel equipment. These tax concessions are granted on a discretionary basis by the Ministry of Culture and Tourism, usually to large hotels with significant capital expenditures.

Impact on Airport Commercialization: While this incentive may apply to the new airport hotel in development, it would not impact the commercial ventures evaluated in this study unless the business/industrial estate were to include an additional hotel.

Foreign Investment Rules

While foreign investment requires government approval, T&T law otherwise treats foreign investment the same as it does domestic investment, with a few exceptions in the energy sector and in terms of land ownership. The Foreign Investment Act of 1990 permits full foreign ownership of companies, though a license is needed to acquire more than 30% of a publicly held business. Foreign investment is commonplace, with fully and partially foreign-owned businesses playing a major role in the financial services, food and beverage, agriculture, metals and petrochemical sectors. Once approved, foreign investment outside the energy sector requires no special government permissions or supervision unless the foreign investors are seeking tax incentives or leasing a significant amount of land. There are no laws restricting the foreign currency transactions or repatriation of profits. Section 2.7 of this report examines the laws governing foreign investment in more detail.

Impact on Airport Commercialization: Trinidad & Tobago's openness to foreign investment should be a positive factor in attracting foreign capital for an MRO venture, free trade zone or business estate. Otherwise, policies on foreign investment are unlikely to have a significant impact on Airport commercialization.

Free Trade Zones

Trinidad & Tobago law provides for the establishment of Free Trade Zones (FTZs) where export-oriented companies can operate free of customs processing, import taxes, sales taxes and other controls while importing, storing and assembling goods for re-export. FTZs have a variety of other privileges and services, such as exemptions from limits on foreign employees, expedited customs clearance for goods imported into the local market, and simplified licensing for new companies and offices. One such FTZ, home to a several food processing companies and a tire manufacturer, is already in operation at Point Lisas.

Impact on Airport Commercialization: The necessary laws for the establishment of an Airport FTZ are already in place. Section 2.7 of this report examines Trinidad and Tobago laws and policies on FTZs in greater detail.

Export-Import Bank of Trinidad and Tobago Ltd.

The Export-Import Bank of Trinidad and Tobago Ltd. (EXIMBANK) is a state-owned bank formed to promote exports by Trinidad & Tobago companies, including both goods and services, by providing export credit insurance, pre- and post-shipment financing, pre-shipment guarantees and marine cargo insurance at lower rates and better terms than those generally offered by the commercial banks. All claims payable by EXIMBANK are guaranteed by the national government. A small business program offers preferential premiums and a higher than standard percentage of coverage for qualified small businesses.

Impact on Airport Commercialization: By facilitating import and export financing, EXIMBANK can contribute to the success of an air cargo hub at Piarco in a small but meaningful way. Because EXIMBANK insurance protects exporters of services against the failure of its overseas customers to make payment because of unforeseen commercial or political risks, it could also be of help to an MRO facility. However, if the MRO center is fully or partially owned by Caribbean Airways, itself a state-owned company, it may be that such EXIMBANK support would be redundant or not applicable.

Business Development Company Ltd.

Trinidad & Tobago's state-funded Business Development Company Limited (BDC) was established in 2002 to help local businesses become more competitive and sustainable. It offers a variety of programs, ranging from training and consulting services to research & development grants and equipment leasing, to companies in many different non-energy sectors. Of particular note are the BDC's Research & Development Facility, which awards grants of \$100,000 or more for R&D projects in the manufacturing and service sectors, and its leasing arm, which offers equipment lease financing at below-market rates. To be eligible for BDC grants and services, companies must be locally owned and operated, and most programs are targeted at companies with annual sales of less than \$5 million.

Impact on Airport Commercialization: While the BDC could have a minor positive effect on Airport commercialization by supporting companies that could be tenants of an airport business estate, its focus on small businesses means that it would not be a source of support for an MRO venture.

Construction Incentives

The government offers several construction incentives that apply to commercial real estate, including an allowance against taxable income of 15% of construction costs for commercial properties (limited to locally-owned "Approved Property

Development Companies” that build in both urban and rural areas) and a 10% per year “wear and tear” allowance on newly built commercial property.

Impact on Airport Commercialization: These construction incentives could apply to all of the Airport commercial ventures under consideration, including new cargo facilities, a business estate/FTZ, a retail estate and new facilities for an MRO venture, but only to the extent that they are privately owned/operated and subject to taxes.

Other Tax Incentives

A locally owned business can apply for a tax credit of 25% of its taxable income, valid for up to seven years, if it engages in an “approved activity”, is based in a designated “Regional Development Area”, or meets the Business Development Company’s definition of a small business. Although the criteria appear quite broad, the Tourism and Industrial Development Company of Trinidad and Tobago Limited (TIDCO) states that it uses a rigorous approval process and grants such tax credits on a limited basis.

Impact on Airport Commercialization: It is unclear whether any of the Airport commercial ventures under consideration would qualify for any of the established tax incentive programs. However, an MRO venture with significant private investment would likely be in a strong position to request some form of tax incentive.

Education and Research Initiatives

Expansion of education and research programs is a major component of the Vision 2020 plan, and cumulative government investment in universities and specialized research institutes between 2007 and 2010 is scheduled to reach \$4.5 billion. Many of the plan’s educational and research initiatives are designed to stimulate business development on Trinidad, and several of them have the potential to significantly impact the Airport commercial ventures under consideration.

University of Trinidad & Tobago: The publicly-funded University of Trinidad & Tobago (UTT) was created in 2004 through the consolidation of several different technical colleges. Currently it has several campuses in different parts of Trinidad, with distinct programs and specialties at each local. A major expansion of UTT is now underway, with new departments and research institutes being formed and a new main campus and headquarters under construction in the town of Wallerfield, approximately eight miles east of Piarco along the Churchill Roosevelt highway. Many of new UTT institutes and programs specified in Vision 2020 are designed to foster the commercialization of research and development and strengthen the

country's business sector through alliances with local industries. Examples include new programs in process engineering and manufacturing, the expansion of agriculture, food processing and information technology research.

Evolving TecKnologies and Enterprise Development Company Limited (eTecK): eTecK is a government-sponsored corporation created to explore investment opportunities in the non-energy sector for local and foreign businesses, support the diversification of the country's economy, develop its export base, foster the development of a knowledge-based economy and build and manage light industrial parks throughout Trinidad. In addition to the seventeen industrial parks that it already operates on the island, eTecK is currently building Tamana InTech Park, a 1,100-acre "Science and Industrial Park" at the same Wallerfield site as the new campus of UTT, with which eTecK has a strategic alliance. The co-location of UTT and Tamana InTech Park is intended to produce synergies for the university and the business park tenants in terms of industrial scientific research. The business park, which is targeting technology and manufacturing companies as tenants, will include office space, laboratories and a variety of support facilities, all connected to a state-of-the-art communications network. It will be home to several industrial research centers, including a new Aluminium Technology Development Centre, plus a government-sponsored "business incubator" facility for start-up companies. In addition to Tamana InTech Park, eTecK has eight other smaller industrial parks in development in other parts of Trinidad, but none of these other parks is in close proximity to Piarco.

Impact on Airport Commercialization: The opening of the new UTT campus and Tamana InTech Park in Wallerfield could impact the airport's potential commercial ventures in several ways. An expanded UTT could establish an aircraft engineering program that would provide a source of trained technicians for a local MRO center. A new cluster of economic activity east of the Airport will generate more traffic along the Churchill Roosevelt highway, which could increase the attractiveness of Airport land as a retail location. On the other hand, the presence of a large new office park, sponsored by the government and considered a centerpiece of the country's development ambitions, will pose serious competition to an airport business estate for many prospective tenants. However, as Tamana InTech Park will not have a Free Trade Zone designation, the new Wallerfield development is unlikely to draw away prospective Airport FTZ tenants that seek the special advantages of such a location. As for the airport's cargo operations, the Wallerfield development is unlikely to have a significant positive or negative impact on Piarco's position as a regional cargo hub.

International Waterfront Project / International Finance Centre

The International Waterfront Project is a \$2 billion real estate development in Port-of-Spain, composed of several office towers, a 428-room hotel, a conference center, a theater, retail space and a parking garage. Two of the largest towers, with 885,000 square feet of office space, make up the International Finance Centre, a concept combining the buildings themselves with new financial policies and infrastructure designed to attract major international financial firms and position Trinidad as the Caribbean's financial center. Over the last few years, Trinidad & Tobago has put in place a Real-Time Gross Settlement System (RTGS), electronic trading on the local stock exchange, a regional credit rating agency, an automated credit bureau and an electronic auction for government securities. At this time, most of the International Waterfront Project has been completed, but worldwide financial crisis has made it difficult for the International Finance Centre to attract the investment banks and other tenants it was expected to host. The government has stated that it may designate the Centre as a "Special Economic Zone" with incentives to encourage financial institutions to locate there.

Impact on Airport Commercialization: The availability of large amounts of vacant office space in an attractive downtown location could negatively impact the prospects of an Airport business estate. However, this impact would be quite small, as financial firms are not likely to be a major segment of potential tenants for the Airport business estate.

Specific Sector Initiatives

The energy sector, including petroleum and natural gas, dominates the Trinidad & Tobago economy. While this sector has been the main driver of the nation's rapid economic growth over the last few years, the Government recognizes that volatility in oil and gas prices makes the economy vulnerable to shocks, and it has undertaken a variety of initiatives to diversify and expand the country's non-energy sectors. The Vision 2020 plan specifies nine non-energy sector industries where Trinidad & Tobago has significant competitive advantages and the country will focus many of its development initiatives. The industries are the following:

- Music and Entertainment
- Film
- Merchant Marine
- Leisure Marine
- Food and Beverage

- Fishing and Fish Processing
- Printing and Packaging
- Downstream Petrochemicals
- Information and Communications Technology

Mechanisms for developing these industries include a variety of tax incentives, publicly-funded infrastructure, research & development grants, and the creation of new state-owned enterprises. The government will also assist in sourcing potential business via trade missions and conferences, and through public-private alliances, joint ventures and equity stakes.

Music and Entertainment: The government established the Trinidad and Tobago Entertainment Company (TTEC) in 2005 to promote the development of the local music and performing arts industries. The organization funds concerts, festivals, recordings and international tours of local artists. Other activities include marketing and promotion, arts education and training, archiving, research and development, and development financing. One priority is to ensure that Trinidad and Tobago is known abroad as the home of steel pan, soca, parang, chutney and calypso music. As well as providing up to 70% of the costs of international tours and other projects, the company also helps local entertainers access private sector funding and facilitates private sector investment in the local music and entertainment industries. In addition to the establishment of the TTEC, the Vision 2020 plan includes a variety of other investments in the music and entertainment industries, including the development of several new performing arts centers and a new 18,000-seat National Carnival Entertainment Centre in Port-of-Spain.

Impact on Airport Commercialization: These programs will not have any significant impact on the Airport commercial ventures under consideration.

Film & Television: The Government recently established the Trinidad and Tobago Film Company Limited, which will be responsible for the development of the film and television industry and the promotion of Trinidad and Tobago as a movie and television production location. The company's services include location scouting, training, logistical support to film crews and marketing. In addition, the government offers international producers up to 30% cash rebates for local expenditures on filming and production in Trinidad & Tobago. Other initiatives to develop the film and television production industries include grants to local filmmakers and production houses.

Impact on Airport Commercialization: These programs will not have any significant impact on the Airport commercial ventures under consideration.

Merchant Marine: To strengthen the local merchant marine industry and meet anticipated growth in international cargo, the government is investing in new, expanded and modernized port facilities in several locations in Trinidad and Tobago. On Trinidad, new ports at Brighton, Cap de Ville, Chatham and Galeota are in various stages of development. At Point Lisas, a major industrial area on Trinidad's southwest coast, the 51% government-owned Point Lisas Industrial Port Development Corporation is significantly expanding port infrastructure with upgrades of existing berth facilities and the construction of two new berths plus supporting infrastructure and utilities. The port of Port-of-Spain has been relocated away from the downtown to the East Sea Lots area, allowing for future facilities expansion and releasing valuable real estate for other commercial development. In addition to investments in port infrastructure, the government is also increasing funding to maritime education, including a new maritime studies department at UTT, and launching international promotional campaigns to attract new shipping companies.

Impact on Airport Commercialization: An increase in merchant marine activity in Trinidad & Tobago could generate more sea-air cargo, but otherwise these programs will not have a significant impact on the Airport commercial ventures under consideration.

Leisure Marine: Trinidad already has a sizeable number of major boatyards and more than one hundred boat maintenance and repair companies of varying sizes. To build on Trinidad's base of low-cost yet skilled boatbuilding labor and the island's position as the only protected Caribbean port outside the path of annual hurricanes, the government is introducing several initiatives to further develop the leisure marine sector. Among these is an exemption from the country's Value Added Tax for services such as repair, docking and mooring of yachts and other pleasure boats whose owners are neither citizens nor residents of Trinidad & Tobago. The government is also funding expanded training and advisory services for the local boatbuilding industry.

Impact on Airport Commercialization: An increase in boatbuilding and repair activity could generate a small amount of air cargo for high-value, low weight boating equipment, but these programs will not have a significant impact on the Airport commercial ventures under consideration.

Food and Beverage: Vision 2020 initiatives to promote the development of the local food and beverage industry include funding for food safety and packaging research, subsidies and lease financing for new food processing equipment, and a variety of new agricultural support programs. The Caribbean Industrial Research Institute

(CARIRI), a government-funded institute at the Trinidad campus of the University of the West Indies (UWI), has launched several new food-related endeavors, including a new Caribbean Food Safety Centre, a project to develop a range of local herb and spice products for export, and evaluations of technologies for use in the local food, beverage and bakery industries. Another government-funded program at UWI is the Cocoa Research Unit, which is developing commercial varieties of cacao for local cultivation and providing planting materials. In order to increase the country's agricultural output, the government has created eight large agricultural estates, each more than 100 acres in size, leased to private companies and cooperatives for the cultivation of a wide variety of vegetables for local consumption and export. The Government will also operate two additional farms in collaboration with the Government of Cuba. The Vision 2020 plan also calls for the construction of new agricultural access roads and infrastructure for irrigation and flood control.

Impact on Airport Commercialization: An increase in fresh produce and other food exports could contribute significantly to the growth of the Piarco air cargo hub. Although food processing is probably not a major target industry for an airport industrial estate, there is some potential for the Government's food and beverage industry initiatives to generate business that the industrial estate could host.

Fishing and Fish Processing: Vision 2020 specifies several investments in infrastructure and research to support the local fishing industry. In addition to the construction of new wharfs and related infrastructure for the landing of fish at several site locations in Trinidad, the government is also acquiring ships for offshore fisheries surveillance and the training of fishermen. A new Fisheries Management Knowledge Centre is being established for the generation and dissemination of data on fisheries resources.

Impact on Airport Commercialization: Fresh seafood exports are already a sizeable portion of Trinidad's air exports, and any initiatives that successfully stimulate the growth of the country's fishing industry could also contribute to the growth of the Piarco air cargo hub. As fish processing is usually located near the ports where fish are landed, seafood processing is not a target industry for an airport industrial estate, but the companies that export fresh fish may be prospective tenants.

Printing and Packaging: The Government seeks to promote the development of the local printing and packaging industries, which benefit from Trinidad's low energy costs and the presence of chemicals and plastics manufacturing, through state-funded technology research relevant to the sector. CARIRI has undertaken a project to

evaluate printing and packaging technologies that can help local companies produce more advanced and higher-value printing and packaging.

Impact on Airport Commercialization: Printing and packaging businesses would be prospective tenants for an airport business estate and FTZ, so any government initiatives that boost the local development of these industries could have a positive impact on the prospects for the business estate. Although printing and packaging companies are unlikely to be major users of air cargo, they would probably contribute some incremental traffic to the Piarco air cargo hub.

Downstream Petrochemicals: Trinidad already has a significant number of downstream petrochemical facilities, but the Government seeks to further develop this sector by attracting or investing in additional high-value-added petrochemical plants. In some cases, it incentivizes this by requiring that petroleum producers seeking drilling rights also develop a local downstream component as well, while in other cases, the Government simply provides private-sector producers with the necessary land and infrastructure. The Government has also entered in to a number of public-private joint ventures with private petrochemical producers, and the government is the sole owner of several petrochemical plants. Petrochemicals ventures in development or recently completed include a methanol/propylene/polypropylene joint venture between BASF and Shell, several privately owned and public-private ammonia/urea plants, a government-owned natural gas refinery, a privately-owned plant that will produce chemicals for food additives, and a privately-owned ethylene plant.

Impact on Airport Commercialization: Development of the petrochemicals sector is unlikely to have any significant impact on the Airport commercial ventures evaluated in this study, beyond a small amount of incremental air cargo traffic due to equipment shipments. The Airport business estate could conceivably be home to small petrochemical plants, but they are much more likely to be sited in the Point Lisas zone or other coastal areas. (Moreover, the presence of a petrochemical plant could deter other potential tenants from locating their offices at the airport business estate.)

Information & Communications Technology (ICT): The main elements of the Government's strategy to stimulate the growth of Trinidad & Tobago's ICT sector are the creation of Tamana InTech Park, the expansion of new technology programs at UTT, investment in "e-government", training in computer and internet use at community centers, and a program to expand broadband access to 80% of the country's population.

Impact on Airport Commercialization: This impact of initiatives to promote the development of the local ICT sector are unlikely to have any significant impact on the Airport commercial ventures evaluated in this study. While an airport business estate may be a good location for ICT companies, the presence of a nearby business estate at Tamana InTech Park, specifically designed for technology companies and positioned as one of the government's high-profile projects, will probably make it difficult for the airport to attract such tenants.

Rapid Rail System

The Vision 2020 plan calls for the creation of a light rail system linking most of Trinidad's major communities and such a project has been under development for several years now. The system will provide fast and frequent service along Trinidad's east-west and north-south corridors and is designed to serve two-thirds of the island's population. While the exact locations of rail stations have not been announced, it is likely that the east-west line will pass just north of the airport and extend to the Wallerfield UTT campus and Tamana InTech Park.

Impact on Airport Commercialization: The construction of an East-West Rapid Rail line passing near Piarco, and presumably stopping nearby, would greatly enhance the convenience of the Airport estate for much of the area's population, thus improving the business prospects of both an Airport business estate/FTZ and a retail estate.

2.7 LEGAL ANALYSIS

2.7.1 Introduction

The Piarco International Airport ("the Airport") situated in the Ward of Tacarigua, in the Island of Trinidad is owned and operated by the Airports Authority of Trinidad and Tobago ("the Airports Authority"). The Airports Authority is a body corporate established by the Airports Authority of Trinidad and Tobago Act Chapter 49:02 of the laws of Trinidad and Tobago ("the Act").

The Airports Authority has appointed SH&E to undertake a study entitled "Regional Air Cargo and Aircraft Maintenance Hub Technical Assistance Project" which seeks to define and enable potential commercial opportunities at the Airport including cargo, aircraft and maintenance facilities. This analysis, which comprises a part of the study, will address the pertinent Trinidad and Tobago laws and regulations regarding certain specific areas as outlined hereunder.

2.7.2 Tenders and Concessions

Summary of Related Laws

Tenders for the procurement of goods and services by the ministries and departments of the Government of Trinidad and Tobago (“GOTT”) and some statutory bodies are governed by the Central Tenders Board Act Chapter 71:91 (“CTBA”). The Central Tenders Board which is established under the CTBA is the authority for inviting, considering, accepting, rejecting offers for the supply of articles or for the undertaking of works or any services necessary for carrying out the functions of GOTT or such statutory bodies and for disposing of surplus and unserviceable articles belonging to GOTT or these statutory bodies.⁹ The First Schedule of the CTBA lists the statutory bodies to which it applies. The Airports Authority is not included in that list and consequently the CTBA does not apply to the Airports Authority. In fact there is a number of statutory bodies and companies wholly or majority owned by GOTT that are not subject to the CTBA. Many of these entities, in varying degrees, use public funds and they are required, consistent with GOTT policy to have their own procurement/tender rules that are designed to promote value for money, transparency, competition and fairness.

In August, 2005 GOTT issued a White Paper called Reform of the Public Sector Procurement Regime (“the White Paper”). The White Paper signaled GOTT’s intention to establish a new framework for procurement which would be applicable to all arms of the State including state owned companies, statutory bodies and other entities engaged in the process of acquiring property and services using public money. The White Paper also proposed that this new framework would cover the disposal of public assets including lands, buildings, intellectual property rights and other assets real and financial, fixed and moveable, owned or managed by the State or State agencies whether by sale, lease, concession or license.¹⁰

GOTT had proposed to take further steps some time ago towards the introduction of the regime proposed in the White Paper. The process has been delayed because it has stated that it is still reviewing its position on aspects of the White Paper. It is therefore not possible at this time to say precisely what form the proposed new procurement regime will take. However, based on several announcements of GOTT, it seems that a new procurement regime that applies to all State controlled agencies including the Airports Authority will be introduced in the not too distant future.

In the meantime, this analysis addresses the current situation regarding tenders and concessions of the Airports Authority.

⁹ However, the Central Tenders Board (CTB) does not oversee contracts pertaining to Government concessions in the service industry.

¹⁰ See paragraph 6.4 of the White Paper.

From its inception in 1980, the Airports Authority has had its own tender rules which have been replaced or amended from time to time. At a meeting on January 6th, 2009 the Airports Authority issued its latest amended form of tender rules entitled “Policy and Procedures for Tenders and Award of Contracts for Goods Services and Works” (“the Airports Authority Tender Policy”).¹¹

The Airports Authority Tender Policy is substantially in conformity with a format specified by GOTT for entities such as the Airports Authority which was issued in June, 2005 entitled “Standard Procurement Procedures for the Acquisition of Goods and Services to be Provided and Works to be Undertaken and for the Disposal of Unserviceable Items in State Enterprise/Statutory Bodies (“the Standard Procurement Procedures”)¹². The overriding objective contained in clause 2.0 of the Airports Authority Tender Policy, states as follows: “The Authority in the fulfillment of its mandate will procure goods and services and works in accordance with the procedures ... which are designed to encourage competition, economy, efficiency and transparency.”

Most of the provisions of the Airports Authority Tender Policy deals specifically with the acquisition of goods, services and works (and these will be elaborated upon later in this analysis), including the disposal of the Airports Authority’s goods that are unserviceable or are surplus to the Airports Authority’s needs.¹³ More importantly Rule 21.4 states that “These rules shall also apply to the disposal of assets.” There are no rules in the Airports Authority Tender Policy that set out a detailed procedure for the disposal of “unserviceable or surplus goods” as well as “assets” as there is for the acquisition of goods, services and works. However, in view of State policy regarding the disposal of property and assets of the State and its agencies, the fact that the Airports Authority Tender Policy explicitly states that it shall apply to such disposals, and past practice of the Airports Authority itself, it is clear that when it is engaged in these activities it should do so in a manner that would “encourage competition economy efficiency and transparency”, and whenever appropriate the provisions in the Airports Authority Tender Policy should be followed in such matters. Further, the word “assets” in Rule 21.4 should be given a wide meaning and thus, for example, the Airports Authority Tender Policy would

¹¹ A copy of the Airports Authority Tender Policy is attached hereto and marked Appendix A.

¹² This Standard Procurement Procedures document does not apply to entities which fall under the purview of the CTBA. A copy of the Standard Procurement Procedures is attached hereto and marked Appendix B. This document is not to be confused with, and is expected to be replaced by, the proposed new procurement framework which is the subject of the White Paper.

¹³ See paragraph 2.0.B, 21.1 and 21.2 of the Airports Authority Tender Policy.

apply in cases involving the grant of licenses and concessions by the Airports Authority.

A question that usually arises regarding state entities that use public funds, such as the Airports Authority, is whether their decisions in the selection of purchasers of their assets or the award of contracts for their projects, are susceptible to the public law remedy of judicial review by the court where they have acted in an unfair or irrational manner. Some earlier local case law¹⁴ held that when awarding contracts for the execution of projects involving the use of public funds state entities must treat all interested parties in a fair and transparent manner, so that, for example, all interested parties must be allowed the opportunity to tender for contracts and should be treated without bias even when the state entities were engaged in projects of a commercial nature. The cases also held that, where state entities had their own internal rules (namely tender rules and regulations) setting out procedures that are designed to ensure fairness and transparency, they must follow those internal rules.

More recently, the Trinidad and Tobago High Court, following judgments of Courts in other Commonwealth jurisdictions including England,¹⁵ have decided that the decisions of a commercial nature of state entities engaged in the award of contracts for their projects are not subject to the public law remedy of judicial review. However, although judicial review may not be available, it is important to note that the Court has held that a private law remedy may be available so that when a party (Party A), engages in a tendering process, the invitation to tender and submission by a tenderer (Party B) of a tender, would result in an implied contract between Party A and Party B and a breach by Party A of the terms applicable to the invitation to tender would entitle Party B to sue for breach of contract. Accordingly the procedures contained in the Airports Authority Tender Policy and/or its invitations to tender must be followed or else it could be exposed to litigation.

Legal Procedure for Conducting a Tender

The following definitions in the Airports Authority Tender Policy are significant for present purposes. “Goods” means all materials, parts, products, implements, tools, devices, machinery, equipment, vehicles, plant and articles of all kinds¹⁶. “Services” means assistance in doing things or getting things done and includes administrative,

¹⁴ See for example, *Century Eslon Limited v The Water And Sewage Authority* HCA No 418 of 1992; *Spancrete Caribbean Limited v Urban Development Company Of Trinidad and Tobago*

¹⁵ In the *NH International (Caribbean) Ltd v Urban Development Company of Trinidad and Tobago* case, the case was decided by the Trinidad and Tobago Court of Appeal but the decision was a majority with two Appeal Court judges holding that the matter was not subject to judicial review but the then Chief Justice gave a strong dissenting judgment.

¹⁶ Airport Authority Tender Policy provision 1.0

engineering, financial, marketing, airport operations, technical, professional and consultancy services¹⁷. “Works” means building, engineering, construction and maintenance works of all kinds¹⁸. “Tender” means an offer or quotation or group of offers or quotations made by a Contractor (s) in response to a request by the Airports Authority to conduct specified works or services or to supply goods. This also includes requests for proposals.”

If goods, services or works in excess of \$100,000.00 are required to be supplied to or undertaken on behalf of the Airports Authority, the General Manager makes a request to the relevant Tenders Committee to invite tenders. The request must include the following:

- Justification for the project;
- Scope of works/specifications in detail to ensure responsive tenders are received;
- An estimate of the cost to be incurred for the project;
- The source of available funding;
- A justification for the form of tendering (sole, selective or public);
- The evaluation criteria; and
- A recommended evaluation team.

The Corporate Secretary must issue all invitations to tender for the procurement of goods and the undertaking of services and works on behalf of the Airports Authority.

The Airports Authority appoints a Registration Committee which is responsible for the approval of new contractors, taking disciplinary action against contractors and approving the de-registration of contractors. Applications for registration as a contractor must be submitted to the Corporate Secretary who issues a pre-qualification questionnaire to the applicant. Once approved by the Registration Committee, the contractor is assigned a contractor registration number and placed on the Airports Authority’s List of Registered Contractors for the purpose of selective tendering. Where selective tendering is approved for the procurement of goods and services the contractors must be selected from the List of Registered Contractors. The relevant department of the Airports Authority is responsible for the selection of contractors to be invited to tender. Where the tender is for a sum in excess of

¹⁷ Ibid
¹⁸ Ibid

\$100,000.00 a minimum of 7 contractors must be invited. The minimum number of invitees is reduced where there is fewer than the specified number of contractors on the list of approved contractors for the particular category of goods, services or works.

Procurement of goods, services and works not exceeding \$100,000.00 must be done on a competitive basis and in accordance with the Airports Authority's purchasing policies and procedures.

There are a few exceptions where the contracts for the supply of goods and services are not done on a competitive basis. These exceptions are not discussed in this analysis because they are not relevant to the study.

Tendering Process

The Board of the Airports Authority ("the AATT Board") may, under the Airports Authority Tender Policy, establish Tender Committees to invite and consider tenders necessary for the Airports Authority. The AATT Board has the power to establish various tender committees;

- The Board Tenders Committee, which shall consider tenders and recommend to the Board the award of contracts exceeding TT\$500,000.00
- The Management Tenders Committee, which shall consider tenders and award contracts not exceeding TT\$500,000.00.

Where the Airports Authority requires goods and services to be supplied in excess of \$100,000.00 the General Manager shall make a request to the relevant Committee with information laid out in clause 7.0¹⁹ of the Airports Authority Tender Policy.

*Tendering Procedure*²⁰

The Airports Authority may require tenderers to pay a non-refundable tender fee.

A tender must be made on the appropriate form specified in the tender documents and must be signed by the person submitting the tender or in the case of a business entity, a duly authorized officer and must be enclosed in a sealed envelope addressed to the Secretary of the relevant Committee.

Every tender must, where applicable, be accompanied by valid Income Tax and Value Added Tax (VAT) Certificates, both confirming that the tenderer has complied

¹⁹ This rule details the invitation to tender process.

²⁰ The Airports Authority Tender Policy, clauses 9-16

with the provisions of and discharged his or its obligations under the Income tax and VAT Tax legislation. These requirements are normally included in the tender rules of State owned companies and statutory bodies. Foreign entities wishing to participate in projects or acquire concessions should therefore take note and obtain appropriate legal and tax advice as to how they can satisfy these requirements. Tenders which do not comply with the provisions with respect to the submission of tenders may be rejected. A tender must be placed in a sealed envelope and deposited in the appropriate tender box before the time and closing date for submission. A tender is regarded as having been received when it has been deposited in the tender box. These boxes must be kept at the Airports Authority's office. Where the tender is unable to fit in the tender box or they are posted from overseas, they must be lodged with the Secretary of Committee. All late tenders shall be rejected. A tender may be withdrawn by a letter addressed to the Secretary of Committee and signed by the person who submitted the tender. The letter may be deposited in the assigned tender box.

On the date and time for the opening of tender, the Secretary of the relevant Committee or his designate and the General Manager or his designate unlocks the tender box and removes the tenders from therein. The sealed tenders are then opened and a note is made of the tenderers, the original and the number of copies of each tender, the tender sums quoted, the deposit receipt or bid bond if required and such further information as the Board or the relevant Committee directs.

An Evaluation Committee, as recommended and approved prior to the issuance of the Invitation to Tender, considers the tenders. Where there is no significant difference in the quality of goods being offered the lowest compliant tender will be accepted. Where this is not the case, in selecting a tender the following shall be taken into account;

For goods and services:

- Total contract price; and terms of payment;
- Evidence of reliability of performance;
- Any warranty or guarantee given;
- Maintenance or repair service provided;
- Delivery time;
- Compatibility with other goods used by the Airports Authority including future economies of scale;

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- Adequacy of stock of spares held in Trinidad and Tobago and/accessibility of spares in general;
- Currency of payment and risk of price increases during a supply period;
- And any other matter related to the quality and adequacy of the goods.

For services;

- Such matter as listed above as may be relevant;
- Evidence of previous performance of similar services or works;
- Technical skills, adequacy of supporting staff, management support systems, supporting financial and contractual arrangements available to the tenderer;
- Proposed execution strategy including schedule and;
- Any other matter related to the quality of the performance of the services and works.

Where the tenderer is required to satisfy technical requirements he or it will be required to submit two (2) envelopes. Envelope 1 is to contain the technical proposals and envelope 2 the financial proposals. Only Envelope 1 is opened and forwarded by the Corporate Secretary to the Evaluation Committee for a detailed analysis of all submitted technical proposals and for a recommendation to the appropriate financial authority as to which tenderer satisfies the technical capability or the requirements of the project. The Evaluation Committee ranks the tenders by order of merit. Envelope 2 is opened subsequently once a capable tenderer is determined. Envelope 2 is evaluated to determine compliance and accuracy and the lowest evaluated may be recommended for acceptance.

Where a tender has been accepted, the tenderer is notified in writing of its acceptance and if a formal contract is required will be notified of this as well. Tenderers may be asked to provide security as the Airports Authority determines. Unsuccessful tenderers shall be notified of the non-acceptance of their bid.

Where a formal contract is required it shall be in the form and on terms and conditions as the Airports Authority thinks appropriate. It shall specify:

- A description of the goods to be supplied or services to be undertaken;
- The terms of payments;
- The price to be paid for the provision of such goods or undertaking of such services;
- The period within which the matters contemplated are to be performed;

- Damages payable by the contractor for delay or non-completion and the bonuses applicable for completion before schedule;
- Provisions for damages in the event of breach by the contractor.

Where a formal contract is required every contractor is requested to produce evidence of workmen's compensation and other such insurance coverage as may be required.

All contracts for the supply of goods and services must be awarded on the basis of competitive bidding.²¹

Requests for Proposals

The Request for Proposal ("RFP") format is a method of procurement often used by state sector entities especially when they wish to grant licenses and concessions or enter into public-private partnerships or joint ventures. The RFP method is particularly useful because it allows for a measure of flexibility and creativity as it permits proposers (tenderers) to offer their own proposals (albeit within defined parameters) for the achievement of the objectives of the state sector entity in question. Usually proposers are required to submit proposals that propose a method that meet or exceed certain minimum financial, technical, business/operational and other requirements for the grant of concessions or licenses which may or may not include a partnership or joint venture arrangement between the state sector entity and the successful proposer.

The last step in this method consists of a negotiation phase and the final award of a concession or license, including, where appropriate, the entry into a partnership or joint venture. After all proposals are evaluated, proposers are ranked and the top ranked proposer is invited to enter into negotiations. These negotiations can sometimes be complex and lengthy. This process can be considerably facilitated if the RFP is accompanied by a template or draft concession/license agreement and, where appropriate, a draft joint venture shareholders' agreement containing, at the very least, the minimum requirements of the public sector entity. While this approach would constitute a "front loading" of the process and costs, it can significantly reduce the length of the negotiations phase and thus permit the public sector entity to abort unproductive negotiations and move on to the second ranked proposer before the latter loses interest.

²¹ Except as provided by Rule 19.0 of the Airports Authority Tender Policy which provides for non-competitive procurement in a few limited that are not relevant to this analysis.

The only reference in the Airports Authority Tender Policy to RFP's ("RFP") is found in the definition of "Tender" at Rule 1.0 thereof. As noted at item 1 of this Task 1 a, at page 3, the Airports Authority Tender Policy would apply to the grant of licenses and concessions by the Airports Authority. In the past the Airports Authority has used the RFP method²² when engaged in granting licenses and concessions. It is therefore suggested that where the Airports Authority intends to grant licenses and concessions and/or where a joint venture type arrangement is proposed involving the Airports Authority and the successful proposer, consideration should be given to using the RFP method. If this is to occur consideration should also be given to making certain amendments to the Airports Authority Tender Policy so as to identify the instances where RFP's may be used and the procedure that should be followed in such cases. It must be noted that amendments to the Airports Authority Tender Policy requires the approval of the Minister of Finance but one does not expect this to be a problem²³ when the Airports Authority is engaged in a project that is approved by GOTT.

Limitations on the Structure of a Concession/Lease Agreement

(a) Ministerial Approval

Pursuant to sections 12 (1) and (2) of the Act, the Airports Authority, for the purpose of facilitating the proper discharge of its functions, may do the following:

- enter into contracts with any person;
- hold shares in any company;
- form a joint venture company

However, one significant limitation is that it may only do so with the approval of the Minister of GOTT responsible for Civil Aviation ("the Civil Aviation Minister"). Currently that minister is the Minister of Works and Transport.

Where the company in question deals with safety and security at airports or the supervision and administration of passenger terminal buildings, the Airports Authority must be the majority shareholder of the company and the financial statements of such company must be audited by the Auditor General of Trinidad and Tobago or by a qualified auditor appointed by the Auditor General.

²² See for example, the 1993 version of the Airports Authority of Trinidad and Tobago Tender Rules which contained provisions relating to Requests for Proposals

²³ See Rule 9.01 of the Standard Procurement Procedures for the Acquisition of Goods, Services to be Provided and Works to be Undertaken and for the Disposal of Unserviceable Items in State Enterprises/Statutory Bodies.

In addition, the Airports Authority may, with the approval of the Civil Aviation Minister, do the following:

- engage in any other business, or hold shares in any company undertaking any other business, where in either case the business is situated on land that is in the possession of the Airports Authority or is related to the functions of the Airports Authority;
- invest in marketable securities and such other investment as may be in the best interest of the Airports Authority or is related to the functions of the Airports Authority;
- carry on all other activities the carrying on of which appear to it to be requisite, advantageous or convenient for or in connection with the discharge of its function.²⁴

Where the Airports Authority is required to appoint directors in a company in which it holds shares, it may only do so with the approval of the Civil Aviation Minister.²⁵

(b) *The leases and concessions relating to land.*

The Airports Authority owns at least 700 hectares of land spanning the Churchill Roosevelt Highway to the Caroni North Bank under the Torrens System of registration and is governed by the Real Property Act Chapter 56:02. The titles to and description of some of these lands are found in Certificates of Title in Volume 3634 Folio 317, Volume 310 Folio 29 and Volume 3554 Folio 21. In order to grant a lease of a portion of Airports Authority land, it is necessary to obtain approvals for sub division of the lands from the Town and Country Planning Division, of the Ministry of Planning and Development lands must be surveyed and the survey approved by the Director of Surveys. Approvals will be needed if development such as the construction of buildings and conduct of business is to take place on the land from various statutory bodies namely, the Town and Country Planning Division, the local health authority, the regional corporation for the Piarco area, and depending on the nature of the proposed activity, the Environmental Management Authority.

Approvals from the Town and Country Planning Division and the Director of Surveys, may sometimes take as much as two years. This process can be expedited where a special request is made or assistance is provided by an arm of the State.

²⁴ Ibid, section 12 (3) (a), (b) and (e)

²⁵ Ibid, section 12 (4)

Where the Airports Authority is granting concessions in respect of its lands it must comply with the provisions of Rule 21.4 of the Airports Authority Tender Policy.²⁶

(c) Civil Aviation Authority

It should be noted that if the activity to be undertaken by way of concession or joint venture entails the operation of aircraft, applications will have to be made pursuant Civil Aviation Act Chapter 49:03 to the Civil Aviation Authority which is responsible for the licensing, registration, certification and inspection of aircrafts as well as regulating all civil aviation operations in Trinidad and Tobago. According to the Civil Aviation Act it is unlawful to operate a civil aircraft in Trinidad and Tobago unless it is registered in Trinidad and Tobago.

Case Studies of Government Assets Successfully Concessioned

A concession is an act of authorization by GOTT or a state agency to a private entity other than a public authority to provide a public service. The ownership of the infrastructure usually remains with GOTT or state agency or reverts to it at the end of the concession. A concession may be granted under various types of agreements including a lease, sublease, license, permit contract or other instrument or arrangement.

(a) The Port Authority of Trinidad and Tobago (“the PATT”) and Bay Ferries Management Limited (“Bay Ferries”)

The PATT is a body established under the Port Authority of Trinidad and Tobago Act Chapter 51:01 (“the Port Authority Act”). The PATT’s functions include developing the harbors of Trinidad and Tobago and operating port services in addition to whatever other duties arise under the Port Authority Act. The PATT and Bay Ferries entered into a management agreement whereby Bay Ferries would manage vessels owned by and on behalf of the PATT, in the transport of passengers and goods between Trinidad and Tobago. Bay Ferries provides crew management services, technical management services and commercial management services as required by the PATT. By the agreement the PATT is required to develop the appropriate infrastructure and processes to ensure the development of a high speed ferry service in Trinidad and Tobago.

²⁶ The Airports Authority Tender Policy Rule 21.4 states, “These Rules shall also apply to the disposal of assets.”

(b) *The Port of Port of Spain (“the PPOS”) and Portia Management Services Limited (“Portia”)*

The PPOS is a limited liability company incorporated under the Companies Act Chapter 81:01. The PPOS was incorporated by the PATT for the purpose of operating and managing the cargo handling business at the Port of Port of Spain (“the Port”). The PATT issued a Request for Proposals for the management and operation of the cargo business of the Port. In March 2006 Portia, a company incorporated in the United Kingdom, which provides management, advisory, consultancy, training and other services to ports throughout the world, was awarded a three (3) year contract to manage and operate the Port of Port of Spain. Portia is to be responsible for operations management, financial planning and control, market development, customer relationship management and training and internship. The PPOS undertook to provide infrastructural, financial and administrative support required by Portia in its operations. Portia is responsible for the management and administration of the facility and is also responsible for its finances, personnel, operations, maintenance and other day to day operations and commercial activities.

(c) *Airports Authority of Trinidad and Tobago and Piarco Air Services Limited (“PAS”)*

PAS is a ground handling company that specializes in aircraft handling operations. The Airports Authority granted to PAS a ground handling license on June 18, 1996 with PAS to provide third party ground handling services in designated areas to scheduled and non-scheduled passenger carrying aircrafts, cargo air carriers etc. PAS was permitted to enter designated areas solely and exclusively to provide ground handling services as authorized by the Airport Authority. In consideration of this license PAS agreed to pay to Airports Authority a license fee and also a turnover fee, based on the PAS’s gross annual turnover. PAS continues to operate as a ground handling agent at the Piarco International Airport.

(d) *The Telecommunications Authority of Trinidad and Tobago*

The Telecommunications Authority of Trinidad and Tobago (“the TATT”) is an independent regulatory body, established by the Telecommunications Act of Trinidad and Tobago 2001 Chapter 47:31 as amended by the Telecommunications Act 2001 (“the Telecom Act”), with responsibility for the liberalization and regulation of the telecommunications and broadcasting sectors.

The TATT grants concessions under the Telecom Act to telecommunications and broadcasting operators who wish to provide telecommunication networks and/or services in Trinidad and Tobago. An application must be submitted to the Minister in

charge of telecommunications (“the Telecom Minister”) and the concession would be granted based on this application. Concessions will require the concessionaire to pay annual fees to the TATT and may impose certain conditions such as anti competitive clauses, access to facilities and others. On December 30, 2005, Digicel Trinidad and Tobago Limited, Laqtel Limited and Telecommunication Services of Trinidad and Tobago (“TSTT”) were awarded concessions to provide public mobile telecommunications services and public international telecommunications network and services for a period of 10 years. Digicel has been in operation since April 2006, Laqtel has yet to initialize its operations. TSTT has been in operation since 1991.

Due to the limited time available we have not been able to obtain detailed information on the agreements entered into by the parties.

2.7.3 Public-Private Partnerships and Joint Ventures

Summary of Relevant Laws

As detailed above, the Airports Authority may, with the approval of the Civil Aviation Minister, contract with any person or form joint venture companies. Apart from the requirement for ministerial approval, the only limitation set out is that where the company in question deals with the safety and security at airports and the supervision and administration of the passenger terminal buildings the Airports Authority must be the majority shareholder.

Public/Private partnerships and joint ventures could be formed in the following ways: by a purely contractual relationship, by partnership governed by the Partnership Act Chapter 81:02 (“the Partnership Act”) or by forming a joint venture limited liability company under the Companies Act Chapter 81:01.

Legal Procedure for Establishing a Public-Private Partnership

Partnerships, unlike limited liability companies, are not considered as separate legal entities at law and therefore all partners are jointly and severally liable for the obligations of the partnership.²⁷ Partnerships in Trinidad and Tobago are governed by the Partnership Act. There are no accounting, auditing or disclosure rules regarding partnerships in Trinidad and Tobago. It is not possible to have a limited partnership in Trinidad.

²⁷ The Partnership Act Chapter 81:02, section 7.

Where the partnership is not to be traded under the names of the individual partners, the partnership will have to be registered under the Registration of Business Names Act Chapter 82:85.

It should be noted however, that it is unlikely that any state entity or statutory body including the Airports Authority will enter into a partnership where the parties are to be jointly and severally liable.

Legal Procedure for Establishing a Joint Venture

A joint venture can take different forms; a limited liability company (where long term projects are envisioned) in which the joint venture partners will not be liable for the acts of the joint venture company; a partnership as mentioned at 2; or it can be a purely contractual relationship between the parties. It is usual however, that joint ventures take the form of a limited liability company. The incorporation of a limited liability company is governed by the Companies Act Chapter 81:01 (“the Companies Act”) which is modeled along the Canadian Business Corporations Act R.S.C 1985 c. C-44 which in turn was influenced by the US Business Corporations Act. One of the objectives of following the Canadian legislation was to facilitate an understanding of the legislation by investors, including those from North America.

If a joint venture company is to be incorporated under the Companies Act the procedure is as follows;

- An application for approval of the name of the company must be made to the Registrar of Companies (“the Registrar”).
- Once the name is approved, Articles of Incorporation must be filed along with a declaration of compliance, notice of directors, notice of address of registered office and a certificate of incorporation will be issued.²⁸

Apart from its Articles of Incorporation, a company may have By Laws but it is not required that the latter be registered in the Companies Registry. In addition parties to the joint venture often enter into a joint venture agreement in the form of a Unanimous Shareholders Agreement (“USA”), which deals with several aspects of the relationship between the parties. The USA is not required to be registered at the Companies Registry; however notice must be given of the fact of execution or termination of the USA to the Registrar of Companies within fifteen days of execution or termination.²⁹ The USA usually contains provisions including, but not

²⁸ Articles of Incorporation – Form 1, Notice of Secretary –Form 27, Notice of Directors – Form 8, Notice of Address -form 4, Declaration of Compliance- Form 31

²⁹ Section 137(4) Companies Act Chapter 81:01

limited to, the type of business the joint venturer would engage in, minority shareholder protection, restrictions on the transfer of shares, resolution of disputes, deadlock and the power of the shareholders to assume the rights powers and duties of the directors. In the latter case, the shareholders will incur all the liabilities of the directors of the company to which the agreement relates and the directors are thereby relieved of their duties and liabilities to the same extent.³⁰

Case Studies Public-Private Partnerships and Joint Ventures Already Executed

a) Trinidad and Tobago Electricity Commission and Power Generation Company of Trinidad and Tobago

The Trinidad and Tobago Electricity Commission (“T&TEC”) is a statutory body established under the Trinidad and Tobago Electricity Act No. 42 of 1945. Prior to 1994 T&TEC was a vertically integrated monopoly but the T&TEC (Amendment) Act of 1994 allowed for the divestment of T&TEC’s generation assets to two independent generation companies, the Power Generation Company of Trinidad and Tobago Limited (“PowerGen”) and Trinity Power Limited (“Trinity Power”). T&TEC purchases bulk electricity power from the two power generation companies. Under a fifteen (15) year power purchase agreement, PowerGen sells bulk power to T&TEC and under a thirty (30) year power purchase agreement Trinity Power sells bulk power to T&TEC. Trinity Power is owned by a consortium of American companies with Power Management Company having the controlling interest. PowerGen is a joint venture company created as a result of the partial divestment of T&TEC and was incorporated on December 22, 1994. An agreement was entered into on December 22, 1994 between T&TEC and PowerGen for the transfer and vesting in PowerGen of some of the property, assets, rights and obligations of T&TEC.³¹ The articles of incorporation of PowerGen indicate that the holders of A shares and B shares in the company respectively, have entered into a Shareholders Agreement dated 22nd December 1994, however due to the limited time we were unable to obtain a copy of this agreement. T&TEC remains the majority shareholder of PowerGen with 51% of the shares while Maru Energy LLC formerly Mirant Corporation owns 39% and Amoco Trinidad Power Resources Corporation owns the other 10%.

³⁰ Section 137(2) Companies Act Chapter 81:01

³¹ The Trinidad and Tobago Electricity Commission Act Chapter 54:70, Vesting Order 229/1994

b) *Telecommunication Services of Trinidad and Tobago Limited ("TSTT") and Cable and Wireless (West Indies) Limited ("C&W")*

Prior to 1991, the Trinidad and Tobago Telephone Company ("Teleco") was the sole provider of telecommunication services in Trinidad and Tobago with GOTT as its sole shareholder. The Trinidad and Tobago External Telecommunications Company Limited ("Textel"), a joint venture company in which GOTT owned 51% of the share capital and C&W the other 49%, provided external communications services.

On December 20, 1989 Teleco, GOTT and C&W entered into a shareholders' agreement whereby C&W agreed to subscribe for shares 49 % of the issued share capital of. The parties agreed to the Teleco merger with Textel by January 1, 1991. The shareholders' agreement also provided that:

- a) If the C&W's total shareholding in Teleco dropped below 49% without their consent, then they would be entitled to give written notice to GOTT requiring them to purchase C&W's shares within 12 months of the notice.
- b) The number of directors in Teleco was fixed to be nine (9) with C&W appointing four (4) directors and GOTT appointing five (5) directors, one of which should be the Chairman and whose identity C&W and GOTT had to agree on. The approval of one C&W director and one GOTT director was required for;
 - Issuing, allotting, redeeming, purchasing or granting option over any shares;
 - Paying dividends;
 - Passing any resolution whereby the classification or status of Teleco might be changed;
 - Changing the scope or nature of the business;
 - Entering into any partnership or joint venture.
- c) Teleco would be granted a license by GOTT to maintain and operate an external telecommunications network for Trinidad and Tobago for a period of 20 years with an option for renewal.
- d) C&W could only sell, charge or create a lien over their shares with GOTT's approval, which was not to be unreasonably withheld.
- e) GOTT was free to sell or transfer their shares without the prior approval of C&W to any wholly owned government entity, to nationals of Trinidad and Tobago, and to former nationals of Trinidad and Tobago resident abroad.

In 1991 pursuant to the shareholders agreement Teleco and Textel merged, and the Telecommunication Services of Trinidad and Tobago Limited (“TSTT”) was formed with GOTT owning 51% of the issued shares and C&W 49%.

The current major shareholder of GOTT’s shares is a Government controlled company called National Enterprises Limited (“NEL”) which was incorporated under the Companies Act Chapter 81:01 on August 27, 1999 as a special purpose company to hold the shares in TSTT and other companies in which GOTT holds shares.

TSTT has two classes of shares, Class A shares held by NEL and Class B shares held by C&W. NEL as a class A shareholder is entitled to appoint five (5) of the nine (9) directors while C&W as a Class B shareholder is entitled to appoint four (4) of the nine (9) directors.

Feasibility of a Joint Venture between the Airport and a Private Entity

The Airports Authority is a creature of statute and therefore does not have the power of a natural person and would be constrained by the specific provisions contained in the Act. As noted at Task 1(b) item 1 above the Airports Authority may with the approval of the Civil Aviation Minister, enter into joint ventures. One would expect that if the Airports Authority enters into a joint venture it would require a number of safeguards to protect its interest. As noted the Civil Aviation Minister’s consent would have to be given. Any joint venture entered into with the Airports Authority would have to be consistent with GOTT’s policy as a whole.

A limited liability company has all the rights, powers and privileges of an individual including the power to hold lands.³² Therefore any limited liability company will be free to enter into a joint venture with the Airports Authority, subject to the restrictions imposed by the Airports Authority and any restrictions contained in the articles of incorporation of the company.

Feasibility of a Joint Venture between Caribbean Airlines and a Private Entity

CAL was incorporated as a limited liability company under the Companies Act Ch. 81:01.³³ Consistent with what was stated before, it has all the powers of a natural person. CAL is in fact owned by the Government who, via its shareholder, the Corporation Sole, has the power to appoint and remove directors and would be subject to Government policies and procedures applicable to various State enterprises

³² Section 21 Companies Act Chapter 81:01

³³ A copy of the Articles of Incorporation is annexed hereto and marked Appendix C.

including CAL. According to the Ministry of Finance (Incorporation) Act Chapter 69:03 (“the Ministry of Finance Act”), section 3, the Corporation Sole is the Minister of Finance for the time being. All property vested in the Corporation Sole is held on trust for the State. Section 7 of the Ministry of Finance Act details the functions of the Corporation Sole; the Corporation Sole holds the property vested in it by the Ministry of Finance Act, any other written law and in any other way. Its function is also to exercise its corporate powers in relation to the property vested in it as it thinks fit, subject to any special directions from the President.

The State Enterprises Performance Monitoring Manual (the Manual)³⁴ which outlines the framework in which state enterprises and GOTT interact will also apply to CAL. The Manual seeks to define the reporting relationships between the components of the public sector, detail the performance monitoring mechanism by which GOTT will assess and evaluate statutory bodies and provides a database of public sector resources.

The Manual also provides for additional guidelines on tendering procedures. It states that GOTT has discontinued the requirement of statutory bodies not governed by the CTBA to obtain prior approval of the Minister of Finance for contracts over five million dollars. We are not aware of whether CAL has its own tender rules and policies.

Based on the policy of GOTT CAL would have to obtain the consent of the Minister under whose portfolio it falls before entering into any joint ventures with a private entity.

Tax issues

Although the issue of taxation is not within the scope of this analysis, it must be noted that companies who carry on business in Trinidad and Tobago are subject to (a) Corporation Tax; (b) Business Levy; and (c) Green Fund Levy. The current rate of Corporation Tax is 25% on chargeable profits, Green Fund Levy is 0.1%, Business Levy is 0.2% of receipts over \$200,000.00. Foreign investors will also be liable for Withholding Taxes. It must be noted that GOTT has entered into double taxation treaties with several countries. In cases where double taxation treaties exist Chapter 85:01 the amount of Withholding Tax payable by a foreign investor will depend on the particular treaty between GOTT and the home jurisdiction of the foreign investor. In addition there are various fiscal incentives available to foreign investors under the Fiscal Incentives Act.

³⁴ This manual can be accessed via <http://www.mofpd.gov.tt/documentlibrary/downloads/15/Performance%20Monitoring%20Manual.pdf>

2.7.4 Establishment of a Free Trade Zone (FTZ)

Summary of Relevant Laws

The Trinidad and Tobago Free Zones Company Limited (“the Free Zones Company”) is a company incorporated under the Companies Act, the shares of which are vested directly or indirectly in the Corporation Sole³⁵. It is the regulatory body having jurisdiction in respect of all free zones in Trinidad and Tobago and all approved enterprises operating in free zones. An approved enterprise is defined by section 2 of the Trinidad and Tobago Free Zones Act Chapter 81:07 (“the Free Zones Act”) as “any company, corporation, firm or individual approved by the Company to carry on an approved activity.” Both local and foreign companies are eligible to apply to become approved enterprises and thus operate businesses in a free zone³⁶ subject, of course, to regulatory oversight by the Free Zones Company.

In its regulatory capacity the Free Zones Company is in charge of administering, controlling, operating and managing all free zones as provided in the Free Zones Act. The Free Zones Company has authority over all goods deposited or manufactured in a free zone for the purpose of exercising its functions under the Free Zones Act subject to any restrictions that may be imposed by the Comptroller under the Customs Act (the Comptroller).³⁷

Subject to any restriction imposed by any written law, the Free Zones Company and any approved enterprise are entitled to import into a free zone free of customs duty the following;

- a) any capital goods, spare parts for machinery, consumer goods, raw materials, components or articles intended to be used for the purposes of or in connection with an approved activity including the following items which may be imported into a free zone free of customs duty;
 - packaging material;
 - intermediate goods;
 - sub-assembly goods to be used in manufacturing, processing, refining assembly, purifying, mixing, or otherwise transformed by enterprises in the free zone;

³⁵ Refer to description of Corporation Sole on page 64.

³⁶ Section 6A of the Free Zone Act states “ In furtherance of the functions given to the Company under section 6 (1), the Company may authorize an approved enterprise to develop, operate and manage a free zone and exercise any of the functions in relation thereto detailed under section 6 (2) (a), (b), (f) and (g).”

³⁷ The Trinidad and Tobago Free Zones Act Chapter 81:07, section 6 (a) and (c).

- goods entered for trans-shipment or repackaging, labeling or warehousing.
- b) any of the following articles;
 - building materials including tools, pipes, pumps, conveyor belts, electronic and electrical machinery, and goods and machinery incidental to the setting up of an enterprise in the free zone.
 - Other apparatus and materials necessary for construction, alteration, extension or repairs to premises.

where the Free Zones Company or the approved enterprise satisfies the Comptroller that such articles are imported for the construction, alteration, reconstruction, extension or repair to the infrastructure of any premises situated within a free zone and including the equipping of such premises.³⁸

An approved activity includes:

1. Warehousing and storing
2. Manufacturing operations
3. Trans-shipment operations
4. Loading and unloading operations
5. Exporting
6. Importing
7. Service operations, including banking, insurance and professional services.
8. Packaging and shipping
9. Assembling
10. Processing, refining, purifying and mixing
11. Merchandising, including international trading products
12. Constructing, altering, reconstructing, extending or repairing infrastructure or premises within the free zone and including the equipping of such premises.
13. Sale, lease, rental or management of free zone land, infrastructure, premises, plant, equipment facilities and services.³⁹

³⁸ The Trinidad and Tobago Free Zones Act Chapter 81:07, section 18 (1)

³⁹ Ibid, First Schedule, Part 1

All goods brought into a free zone must be consigned to the Free Zones Company or to an approved enterprise and such goods may, with the approval of the Free Zones Company be transferred from one approved enterprise to another or from the Free Zones Company to an approved enterprise or vice versa. The goods transferred, however, must be used for an approved activity of the approved enterprise or the Free Zones Company.⁴⁰

Subject to the above, no retail trade is to be conducted within any free zone without prior approval in writing of the Comptroller and of the Free Zones Company and any approval granted shall be subject to those terms and conditions and the Comptroller or the Free Zones Company may think fit.

Legal Procedure for Establishing a FTZ

Any enterprise wishing to undertake an approved activity must make a written application to the Free Zones Company for permission to do so and must submit to the Free Zones Company such documents and information as the Company may prescribe.⁴¹ Subject to this application the Free Zones Company may, by Order, grant, subject to such terms and conditions as the Free Zones Company thinks fit, approval to an enterprise to undertake the approved activity specified in its application.

Companies incorporated or registered in Trinidad and Tobago that wish to operate business in a free zone must submit a business plan to the Free Zones Company before obtaining an application form. The business plan must include detailed information regarding jobs, skill, export markets, environmental and planning considerations, feasibility studies and evidence of compliance with provisions of the Free Zones Act and other relevant organizations. Once the business plan satisfies the established criteria, then the company interested will be given an application form and the Free Zones Company will advise on the operating terms and conditions and the annual license fee applicable.

The Free Zones Company will not grant approval for any activity in a free zone to any company unless that company is incorporated or registered under the Companies Act or to any firm unless that firm is registered under the Registration of Business Names Act in Trinidad and Tobago.⁴²

⁴⁰ Ibid, section 18 (4)

⁴¹ The Trinidad and Tobago Free Zones Act Chapter 81:07, section 15 (1).

⁴² Ibid, section 16

Foreign companies (referred to as ‘external companies’ in the Companies Act Chapter 81:01 (“the Companies Act”)) interested in either carrying on an approved activity within a free zone or in operating and managing a free zone have two options; they could either incorporate a subsidiary or affiliate of their company in Trinidad and Tobago, or register in Trinidad and Tobago as an external company under the Companies Act⁴³.

The registration of external companies (i.e. Foreign companies) in Trinidad and Tobago is dealt with by Part V Division 2, sections 317-346 of the Companies Act. An external company is defined as “any incorporated body of persons that is formed under the laws of a country other than Trinidad and Tobago”. According to the Companies Act external companies wishing to establish a place of business in Trinidad and Tobago must file with the Registrar of Companies (“the Registrar”) a statement in a prescribed form within fourteen days of establishment of business, setting out the following:

- the name of the company;
- the jurisdiction within which the company was incorporated;
- the date of its incorporation;
- the manner in which it was incorporated;
- a list of its corporate instruments;
- the period, if any, fixed by its corporate instruments for the duration of the company;
- the extent, if any, to which the liability of the shareholders or members of the company is limited;
- any restrictions on the business that the company may carry on;
- the date on which the company commenced or intends to commence any of its business in Trinidad and Tobago;
- the authorized, subscribed and paid-up or stated capital of the company, and the shares that the company is authorized to issue and their nominal or par value, if any;

⁴³ According to section 5 of the Companies Act, a company is an affiliate of another if it is the subsidiary of the other, or both are subsidiaries of the same body corporate or each of them is controlled by the same person. A company is a subsidiary of it is controlled by another body corporate.

- the full address of the registered or head office of the company outside Trinidad and Tobago;
- the full address of the principal office of the company in Trinidad and Tobago; and
- the full names, addresses and occupations of the directors of the company

The statement required under section 318 (1) must be accompanied by an affidavit or solemn declaration made before a notary public by an officer of the company that verifies on behalf of the company the particulars set out in the statement.⁴⁴

An external company will also have to file with the Registrar a fully executed power of attorney in a prescribed form in favor of a company incorporated or persons resident in Trinidad and Tobago that will empower such company or such persons to act as the attorney for the company for the purpose of receiving service of process in all suits and proceedings by or against the company in Trinidad and Tobago.⁴⁵

An external company that is registered in Trinidad and Tobago will have an ongoing obligation to file an annual return every year.⁴⁶ Further, where the external company registered under the Companies Act has changed the name of the external company, or the corporate instruments have been altered, or the objects of the external company has been altered, it must within 30 days after the change has been made, file with the Registrar duly certified copies of the instruments changed.⁴⁷

2.7.5 Restrictions on Foreign Investments

Summary of related laws

There are restrictions on foreign investment in Trinidad and Tobago. The Foreign Investment Act Chapter 70:07 (“the FIA”) is an act to provide for the acquisition of any interest in land or shares in local private or public companies and for the formation of companies by foreign investors.

The FIA defines a “foreign investor” as:

- a) an individual who is neither a citizen of a Caricom member state or a resident of Trinidad and Tobago;

⁴⁴ Companies Act Chapter 81:01, section 318 (2).

⁴⁵ Companies Act Chapter 81:01, section 323.

⁴⁶ Ibid, section 333. The annual return updates the corporate records that companies are required to file at the Companies Registry.

⁴⁷ Companies Act Chapter 81:01 section 332

- b) any firm, partnership or unincorporated body of which at least one half of its members consists for persons to whom this paragraph or paragraph a) or c) applies;
- c) any company or corporation that is not incorporated in a Caricom member country, or, if so incorporated is under the control of a person to whom paragraph a) or b) applies or is deemed to be under the control of a foreign investor in accordance with section 2 (2) of the Act.⁴⁸

A Caricom member state is defined as any country:

- a) that is a member of the community established⁴⁹ under the treaty done at Chaguaramas, Trinidad and Tobago on 4th July 1973; and
- b) the laws of which provide investment facilities for citizens of Trinidad and Tobago similar to those provided for citizens of Caricom member countries under the laws of Trinidad and Tobago.⁵⁰

The Caribbean Community (“Caricom”) was established in 1972 when the Commonwealth Caribbean leaders decided to transform the Caribbean Free Trade Association (CARIFTA) into a Common Market. Caricom’s objectives include improving the standard of living and work among member states, accelerating and sustaining economic development and perhaps most importantly, achieving a greater measure of economic leverage and effectiveness of Member States in dealing with third States.⁵¹

According to the FIA a company or corporation shall be deemed to be under the control of foreign investors if:

- a) at least one half of the votes exercisable at any meeting of the company or corporation are vested in foreign investors; or
- b) having a share capital, at least one half of the nominal amount of its issued shares that are voting shares are vested in foreign investors; or
- c) not having a share capital, at least one half in number of its members are foreign investors; or

⁴⁸ The Foreign Investment Act Chapter 70:07, section 2 (1)

⁴⁹ The members of the Community are most of the English speaking countries of the Caribbean Sea including Suriname and Haiti.

⁵⁰ Ibid section 2 (1)

⁵¹ The members of the Community are most of the English speaking countries of the Caribbean Sea including Suriname and Haiti

- d) it is in fact controlled by foreign investors.⁵²

Shares

No license or permission is required for a foreign investor to incorporate a private company in Trinidad and Tobago or to acquire shares in a private company in Trinidad and Tobago. However, the foreign investor must supply the Minister responsible for finance, prior to incorporation with:

1. the name, address and nationality and former nationality of the foreign investor;
2. if the investor is a company, its place of incorporation, its principal place of business, the names, nationality, former nationality and addresses of its directors and the names of any controlling shareholder;
3. the identity of any other country in which the foreign investor holds investments;
4. the purpose of the investment;
5. whether the foreign investor is or is not a resident of Trinidad and Tobago within the meaning of the Exchange Control Act;
6. full particulars of the consideration for the investment and of the payments and credits made and the name of the bank through which each such payment or credit was made or given.

A foreign investor who wishes to acquire shares in a local public company shall supply the Minister and the Secretary of the company with the information as listed above.⁵³

A foreign investor may not acquire shares in a local public company without a license where the holding of such shares results in 30% or more of the total cumulative shareholding of the company being held by foreign investors.⁵⁴ Where that threshold of 30% is not exceeded the foreign investor does not need to obtain a license.

If the local public company in question is listed on the Stock Exchange, a foreign investor shall not acquire such shares unless the company certifies to the stock broker acting in respect of the acquisition and to the Stock Exchange, that at or before the acquisition the total shareholding of foreign investors will not, following such

⁵² Ibid, section 2 (2)

⁵³ Ibid, section 5 (1)

⁵⁴ Ibid, section 5 (2)

acquisition, exceed 30% of the total issued shares of the company, or that the foreign investor in question holds a license in respect of those shares to be acquired should they exceed 30%.⁵⁵

Land

A foreign investor may acquire land, not more than one acre, for residential purposes and not more than five acres for commercial purposes without obtaining a license.

Where a foreign investor is interested in acquiring more than one acre of land for residential purposes or more than five acres for commercial purposes, it must apply to the Minister of Finance for a license to hold this interest. Note however, that land may be acquired by a foreign investor on an annual tenancy or for any less interest for the purposes of his residence, trade or business but not exceeding five acres without a license.⁵⁶

GOTT has published an Application Form (and instructions for completing it) for parties wishing to apply for licenses to hold land or shares in instances where licenses are required under the FIA. Once all the information required for the application is in order, an application can be processed within two weeks.

The Application Form sets out to standardize the application process and also ensure that all relevant information is provided from the outset. However, the current application process has been the subject of some criticism and it is now under review. It is expected that a new application format will be developed soon.

On the vesting of land in a foreign investor, the foreign investor and his attorney-at-law must ensure notice of such vesting is given to the Minister in the form set out in the Act together with a true copy of the instrument securing vesting.⁵⁷

The consideration to be paid by the foreign investor for shares or land must be paid in internationally traded currency (e.g. US Dollars) through a person authorized by law as a dealer in that foreign currency except where, in the case of a company incorporated in Trinidad and Tobago, the consideration is financed out of capital reserves or retained earnings generated from its operations in Trinidad and Tobago.

Work Permits

A person who is not a citizen of Trinidad and Tobago nor a holder of a Certificate of Recognition of Caribbean Community Skills Qualification (“the Certificate”) and

⁵⁵ Ibid, section 5 (4)

⁵⁶ Ibid, Section 6 and 7

⁵⁷ Ibid, section 8

certified to work within the Caribbean Community (CARICOM) region under the CARICOM Single Market and Economy (CSME) and wishes to enter the country for the purpose of work or work-related activities for a period of more than 30 days must apply for a work permit from the Ministry of National Security. A person may enter the country for 30 days or less for work or work-related activities without a work permit once during any consecutive 12-month period. Each work permit is issued to a particular person for a specified period of time and for attachment to a particular company or institution, as described in the permit. Work permits are only issued to those who possess skills or expertise not available in Trinidad and Tobago.

The Certificate is a certificate which allows the holder, along with a passport from one of the Qualifying Caribbean Community States listed in Schedule 1 of the Immigration (Caribbean Community Skilled Nationals) Act Chapter 18:03 to enter Trinidad and Tobago for a period of indefinite duration. The Certificate certifies that the holder of such a passport is recognized by the Government of that qualifying Caribbean Community State as holding qualifications which satisfy the conditions for recognition of Caribbean Community Skills Qualification.⁵⁸

Feasibility of Foreign Investment in Airport Assets

Subject to compliance with the Airports Authority Tender Policy a foreign investor may enter into a joint venture with the Airports Authority or be granted a concession in the form of a lease or license to use lands belonging to the Airports Authority.

As stated before, according to clause 21.4 of the Airports Authority Tender Policy, the Airports Authority is able to dispose of its assets in accordance with the Airports Authority Tender Policy. The Airports Authority therefore, is open to enter into foreign investments once they go through the tendering process prescribed by the Airports Authority Tender Policy.

⁵⁸ See the Immigration (Caribbean Community Skilled Nationals) Act Chapter 18:03, section 8 for the qualification requirements.

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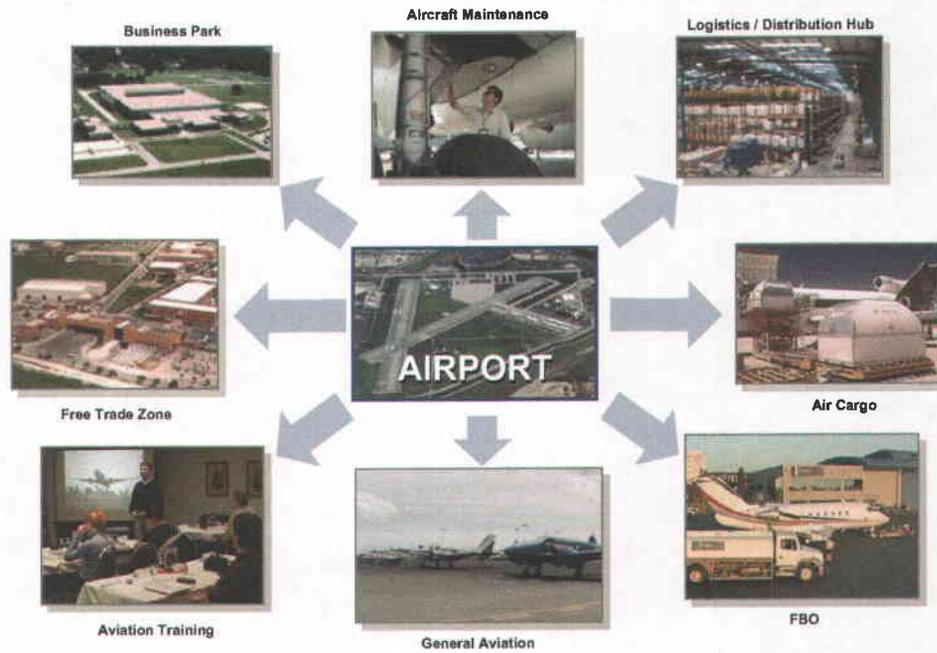
**TASK 2 – MARKET ASSESSMENT AND
PRELIMINARY RECOMMENDATIONS****3.1 INTRODUCTION**

This Task 2 report examines the business opportunities currently unexploited or underexploited at Piarco International Airport (“Piarco” or “the Airport”). The Airport is a national asset, and represents an important engine for economic development for Trinidad and Tobago. The asset needs to be effectively managed and developed in order to realize the maximum economic benefit to the country as a whole. In addition, to economic development, expanding the non-airline areas of POS represents new and important sources of revenue to the airport and will contribute to improving the financial self sufficiency of the Airports Authority of Trinidad and Tobago.

The remainder of this chapter reviews the range of business opportunities that may be available to AATT. Section 3.2 analyzes the specific business opportunities available at POS and makes specific recommendations about each. Section 3.3 describes similar projects at other airports in Latin America and worldwide that have been successful. By examining these success models and evaluating the specific conditions at POS, in Section 3.4 SH&E has ranked the commercialization opportunities, in terms of attractiveness and feasibility. In addition, SH&E has compiled a list of the U.S. firms that participate in these types of ventures as designers, builders, operators or suppliers. (See Appendix E: for the list of U.S. firms.)

In the preparation of this report, SH&E has examined numerous business opportunities including aircraft maintenance, air cargo, free trade zones, logistics, general aviation, aviation manufacturing, training facilities, business estates, and aircraft completion centers.

Exhibit 3-1: Diagram of Possible Business Opportunities



After identifying the opportunities listed above, SH&E reviewed such facilities at other airports in Latin America and the Caribbean. Piarco has pursued some of these opportunities to varying extents, but the table in Exhibit 3-2 below shows that it has fewer of these commercial ventures than its peers in the region.

Exhibit 3-2: Benchmarking of Aviation Facilities

City	Airport	Air Cargo Terminal	Aircraft Maintenance	FBO	Business Park	Onsite/Nearby Free Trade Zone
Aruba	AUA	Medium	Line	1	No	No
Barbados	BGI	Medium	Line	3	Yes	No
Kingston	KIN	Large	Line	1	No	Yes
Montego Bay	MBJ	Medium	Line	1	Yes	Yes
Panama City	PTY	Large	Heavy	3	No	Yes
San Jose	SJO	Large	Heavy	2	Yes	Yes
San Juan	SJU	Large	Line	2	Yes	Yes
Santo Domingo	SDQ	Large	Line	2	No	Yes
Piarco	POS	Medium	Heavy	1	No	No

Source: SH&E Survey

After analyzing the likely demand for, and feasibility of, the wide range of opportunities that could be pursued at Piarco, SH&E eliminated several for consideration.

General Aviation Terminal

Helicopter flights in support of the local oil and gas industry account for the majority of general aviation operations at POS. Two helicopter operators, Bristow Caribbean and Evergreen Helicopters, are based there, and Bristow is currently building a new

facility at the airport. Briko Air Services, the major fixed-wing general aviation operator at Piarco, offers charters, flight training, and other GA services out of its own facility on airport grounds. In SH&E's opinion, these facilities should be sufficient to accommodate Piarco's general aviation activity for at least the next decade. While POS is the only Trinidad airport capable of handling large commercial aircraft, several small airfields and heliports such as Camden Base in Couva offer alternative locations for piston aircraft that can be expanded to accommodate a significant portion of such traffic.

Aviation Manufacturing Facility

Although potentially lucrative in terms of tax revenue and employment, aviation manufacturing facilities are high-risk business ventures that require large capital investment. While an airport is often the logical site for such facilities, suitable facilities are not enough to attract aviation manufacturers, which typically depend on a local cluster of supporting industries that are not currently present in Trinidad. Likewise, manufacturers of aerospace components that do not rely on a network of specialized suppliers are usually sited near their customers. Trinidad & Tobago does not appear to have any significant competitive advantage as a location for aviation manufacturing, and in the absence of a long-term government commitment to invest in aerospace as a strategic national industry, it is an unlikely candidate for a new aviation manufacturing facility. Indeed, many larger countries with significant local aerospace markets have attempted to develop their aviation manufacturing industries with poor results. For every Brazil, the home of the very successful Embraer, there is also an Indonesia, where the government-owned aerospace company developed an unsuccessful of turboprop airliners. Even China, with vast resources and a firm commitment to developing a national aerospace manufacturing sector, has had more failure than success over the course of the last few decades. This is not to say that developing countries cannot compete in aerospace manufacturing, but that it is a high risk venture, requiring significant investment by government, and that may not have room for smaller players such as Trinidad.

The one advantage which Trinidad does possess is low energy costs. If the government wishes to attempt to develop an aviation manufacturing sector, then it will require a focused strategy to build the appropriate support infrastructure, technical training skills, and subsidies, including low energy costs to attempt to lure potential companies to the island. In any event, this is a long term strategy which will require a strong commitment from the government, with no guarantee of success.

Aircraft Completions Center

Like aviation manufacturing facilities, aircraft completions centers (which install customized aircraft interiors, usually in private jets) depend on a large network of specialized suppliers. Trinidad's remote location relative to these suppliers, and to the private jet buyers who often want to observe completion progress at frequent intervals, makes Piarco an unlikely candidate for a successful completions center.

Aircraft Component Center

An aircraft component center is a distribution and repair facility for aircraft parts. Its functions overlaps somewhat with those of an MRO facility, but its focus is typically on stocking and repairing a broad range of rotables, spares and other components for dispatch to airlines and their maintenance providers. Unlike an MRO facility, where aircraft arrive for an extended period of maintenance, component centers are usually located at major airline hubs (or near airports with significant levels of aviation activity) in order to ensure that components can be quickly delivered and installed in aircraft awaiting line maintenance. Because Piarco is neither a large hub nor close to other hubs, it is not a logical site for a major component center.

Conclusion

After eliminating these ventures from consideration, SH&E narrowed the list down to the four most promising opportunities:

1. Regional Cargo Hub
2. Third-Party Maintenance, Repair, and Overhaul (MRO) facility
3. Free Trade Zone/Business Estate
4. Retail Estate

Each of these opportunities is analyzed in detail in Section 3.2. Examples of airports where these opportunities have been successfully exploited are described in Section 3.3, and the opportunities are ranked in terms of attractiveness and feasibility in Section 3.4.

3.2 ANALYSIS OF BUSINESS OPPORTUNITIES

3.2.1 Introduction

The four commercial opportunities evaluated in this study are all concepts that have been put to profitable use at airports around the world. To varying degrees, each one is an outgrowth of some element of Piarco's core aeronautical business, and each one

leverages the airport's strategic location within the region or location on Trinidad. While each of these four opportunities could be pursued on a standalone basis, a significant part of their attractiveness may derive from the linkages between the initiatives, and how each they directly or indirectly strengthen other business areas of the airport. For that reason, it will be important that AATT select not just the right individual initiatives to pursue but the right combination of mutually reinforcing ventures that produce synergies with other Piarco activities, and contribute to the health and profitability of the airport as a whole. Therefore this study aims to explore the potential impact of each commercial opportunity on other airport activity (and vice versa), in addition to the likely revenue, cost and risks that it entails.

3.2.2 Regional Cargo Hub

Though dwarfed by Miami and San Juan airports, Piarco is an important air cargo market within the Caribbean Basin, and has the third largest volume among island locations after San Juan and Santo Domingo. While its location at the far southeast of the Caribbean is not ideal for many intra-Caribbean and US-Caribbean trade flows, Trinidad's large local market gives Piarco the potential to be a successful regional cargo hub for the Southern Caribbean. In addition, there are opportunities for Piarco to find a niche role in connecting certain North America-South America, South America-Caribbean, and South America-Europe markets.

Exhibit 3-3: Ranking of Caribbean Basin Air Cargo (metric tonnes, 2007)

Airport	Tonnes
1 Miami (USA)	1,922,985
2 San Juan (Puerto Rico)	234,427
3 Panama City (Panama)	82,051
4 San Jose (Costa Rica)	79,758
5 Santo Domingo (Dominican Republic)	55,401
6 Caracas (Venezuela)	41,535
7 Port of Spain (Trinidad & Tobago)	31,805
8 Barranquilla (Colombia)	29,370
9 San Salvador (El Salvador)	28,849
10 Havana (Cuba)	24,721
11 Managua (Nicaragua)	21,210
12 Cancun (Mexico)	17,446
13 Curacao	16,829
14 Mérida (Mexico)	16,077
15 Kingston (Jamaica)	14,991
16 Pointe-A-Pitre (Guadeloupe)	14,785
17 Fort de France (Martinique)	13,925
18 Puerto Plata (Dominican Republic)	9,816
19 Barbados	7,355 *
20 San Pedro Sula (Honduras)	7,334

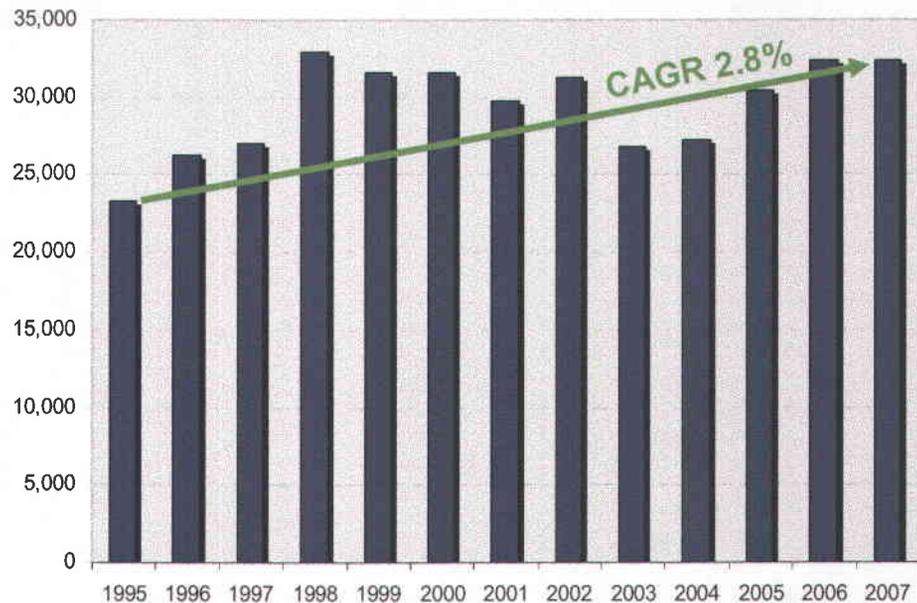
Source: ACI Worldwide Airport Traffic, 2007

* Barbados cargo volume is from 2006

Air Cargo Trends at Piarco

Air cargo traffic and service at Piarco have grown at a healthy pace since 2003, but they are still well below their previous peak in 1998. The drop in cargo traffic between 1998 and 2003 and its subsequent recovery in the last five years has been driven largely by the decline and rebirth of BWIA/Caribbean Airlines and fluctuations in service levels by a small group of cargo carriers.

Exhibit 3-4: Piarco Cargo Traffic, 1995-2007 (metric tonnes)



Source: AATT

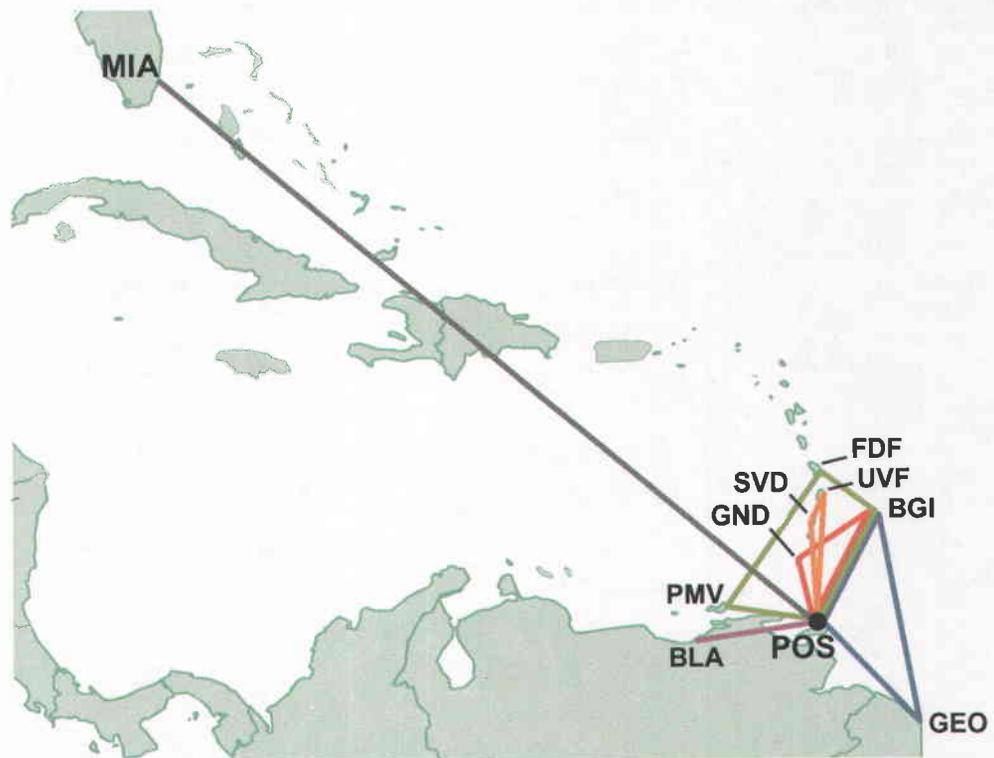
In addition to ad-hoc cargo charters and the belly cargo operations of passenger airlines, Piarco currently has regular freighter service from five cargo airlines:

- **Amerijet** – Miami-based carrier with extensive Latin America and Caribbean operations
- **Laparkan Airways** – Guyanese carrier serving South America and the Caribbean Basin
- **Vensecar Airways** – Venezuelan carrier operating on behalf of DHL
- **Air Tahoma** – Puerto Rico-based carrier operating on behalf of Fedex
- **ABX Air** – US carrier operating a MIA-POS freighter flights on behalf of Amerijet and Caribbean Airlines

Amerijet, which operates a fleet of Boeing 727 freighters plus a 767-200 freighter leased from ABX, accounts for the majority of the airport's cargo flights and capacity. The carrier's service at Piarco has fluctuated greatly over the last five years, at times dropping to less than one daily departure, but it has once again been building up its operations at Piarco in the last few months. As of March 2009, it operates 15 flights per week between Piarco and eight points in the Caribbean Basin. The role of Piarco within Amerijet's network can be considered one of a focus city or small regional hub, with two daily MIA nonstops and a collection of multi-stop

Caribbean and South America flights. Exhibit 3-5 below illustrates the Amerijet network at Piarco.

Exhibit 3-5: Amerijet Piarco Routes



Source: OAG Schedule files, March 2009

Other scheduled freighter service at Piarco includes:

- Caribbean Airlines/ABX: Miami and Barbados (2 weekly departures)
- Laparkan Airways: Miami, Barbados, Georgetown (Guyana) and Paramaraibo (9 weekly departures)
- Vensecar International (DHL): Caracas and Barbados (10 weekly departures)
- Air Tahoma (Fedex): Aguadilla, Puerto Rico (7 weekly departures)

Air Cargo Growth Opportunities

In its previous study⁵⁹ for the Government of the Republic of Trinidad and Tobago in 2004, SH&E outlined the following cargo growth opportunities at Piarco:

- Local Trinidad & Tobago market

⁵⁹ Piarco International Airport Strategic Plan, June 2004

- Regional hub for the southern Caribbean
- Intercontinental transshipment point

To varying degrees, these opportunities remain attractive today. Strong growth of the Trinidad & Tobago economy has stimulated demand for additional air cargo service, while Amerijet's renewed growth at Piarco offers evidence of the airport's potential as a regional air cargo hub. Although SH&E does not consider Piarco to be a viable location for an intercontinental cargo hub, it has identified market niches where the airport's location, combined with the right facilities and cost incentives, would attract some North America-South America and South America-Europe transit traffic.

Although Piarco does serve as an important connecting point between certain Caribbean Basin markets, it is the strength of the local market that makes such connecting services viable. Trinidad & Tobago's overall imports and exports grew at annual averages of 16% and 20% respectively between 2004 and 2007, and despite the recent global slowdown and drop in oil prices, the country's economy is forecast to grow at close to 4% annually for the next five years.⁶⁰ While SH&E has not been able to obtain detailed data on the origin and destination of air imports and exports (as opposed to total imports and exports), interviews with air cargo operators indicate that Piarco air imports are primarily from the U.S. and Europe, and that exports are destined primarily for the U.S. and Canada. Exhibit 3-6 shows the origin and destination of Trinidad & Tobago's imports and exports. While these are total import and export values across all modes of transport, they show that the country's primary trading partners are North America and Europe (with crude oil also coming from West Africa to be refined in Trinidad.) It is also significant that trade with other Caribbean islands is relatively small, aside from energy exports to Jamaica.

⁶⁰ IMF World Economic Forecast, October 2008

Exhibit 3-6: Trinidad & Tobago International Trade (by country, 2007)

Country	2007 Imports (US\$ million)	% of Total	CAGR 2004-2007	Country	2007 Exports (US\$ million)	% of Total	CAGR 2004-2007
Total	7,663	100%	16%	Total	14,074	100%	20%
1 USA	1,925	25%	5%	1 USA	8,794	62%	15%
2 Brazil	815	11%	17%	2 Jamaica	1,059	8%	30%
3 Colombia	678	9%	108%	3 Spain	638	5%	171%
4 Gabon	521	7%	79%	4 Mexico	528	4%	37%
5 Congo	440	6%	41%	5 Canada	393	3%	49%
6 China	356	5%	41%	6 Colombia	310	2%	96%
7 Canada	314	4%	43%	7 France	281	2%	-6%
8 Nigeria	304	4%	50%	8 United Kingdom	246	2%	24%
9 Venezuela	299	4%	25%	9 Japan	244	2%	141%
10 Japan	261	3%	12%	10 Suriname	213	2%	17%
11 United Kingdom	213	3%	-6%	11 Rep. Of Korea	181	1%	197%
12 Germany	173	2%	-29%	12 Netherlands	170	1%	113%
13 Italy	168	2%	20%	13 Saint Lucia	122	1%	25%
14 Thailand	89	1%	50%	14 India	114	1%	120%
15 Rep. Of Korea	71	1%	43%	15 Brazil	113	1%	33%
16 Mexico	70	1%	20%	16 Barbados	100	1%	6%
17 Spain	59	1%	-1%	17 Dominica	45	0%	20%
18 France	58	1%	8%	18 Taiwan	43	0%	169%
19 Netherlands	56	1%	-13%	19 Indonesia	43	0%	33%
20 India	47	1%	19%	20 Panama	40	0%	-5%
21 Barbados	44	1%	25%	21 Honduras	38	0%	-16%
22 Peru	42	1%	77%	22 Guatemala	36	0%	158%
23 Bulgaria	42	1%	449%	23 Italy	33	0%	30%
24 Taiwan	39	1%	17%	24 Saint Kitts & Nevis	29	0%	4%
25 South Africa	35	0%	83%	25 Anguilla	26	0%	55%

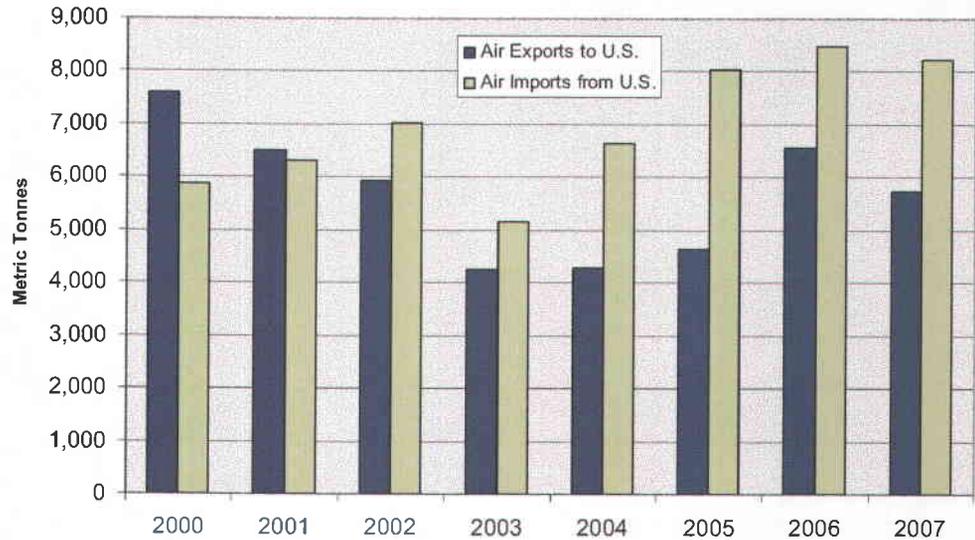
Source: US Foreign Trade Databank, via WISER

North America is undoubtedly Trinidad & Tobago's primary air cargo market, and Piarco air cargo will always be very sensitive to changes in U.S.-Trinidad & Tobago trade flows. Although overall trade grew strongly over the last three years, it is important to note that Boeing has reported a 6.9% decline in U.S.-Trinidad & Tobago air cargo tonnage in 2007, after 17.1% growth in the prior year.⁶¹

While the country's international trade is dominated by petroleum and petrochemical products, there are several other growing import and export categories for which air cargo is the most suitable mode of transport. The petroleum sector relies on complex machinery, virtually all of it manufactured in other countries, that is usually shipped by sea but must sometimes be sent by air when a breakdown of working equipment threatens to hold up production. Perishables are another category for which shipment by air is vital. Most of Trinidad & Tobago's fresh fish exports, which have been growing at around 10% annually in recent years, must be shipped by air to markets in the U.S. and Canada, and the same is true of fresh vegetables.

⁶¹ Boeing 2008 World Air Cargo Forecast

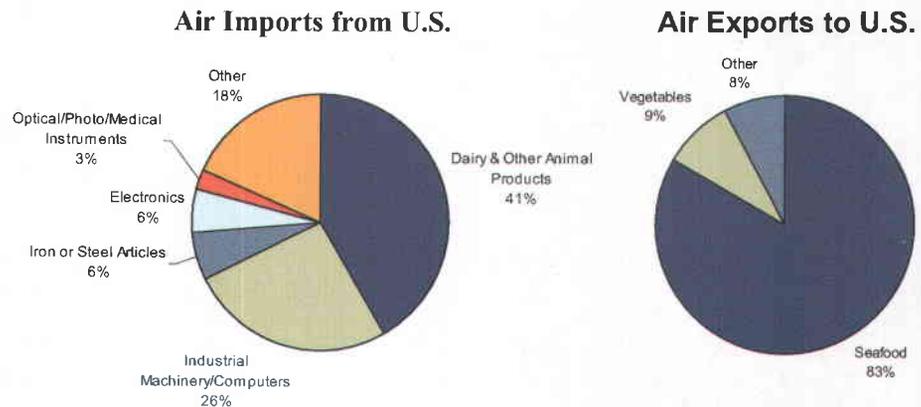
Exhibit 3-7: Trinidad & Tobago – U.S. Air Cargo (metric tonnes, 2000-2007)



Source: US Foreign Trade Databank, via WISER

As Exhibit 3-8 shows, Trinidad’s air imports from the U.S. are mostly dairy products and industrial machinery, while seafood accounts for 83% of air exports to the U.S.

Exhibit 3-8: Trinidad & Tobago – U.S. Air Cargo (by weight, 2007)



Source: US Foreign Trade Databank, via WISER

While the strength of the local air cargo market is key to maintaining and growing freighter service at Piarco, the airport itself has only a limited ability to stimulate local demand for air cargo. It can reduce the cost and raise the efficiency of air cargo facilities and processes so as to reduce the cost premium of air transport relative to other modes of shipping, but government initiatives to promote the development of the seafood and fresh produce sectors, or to develop industries that create high value,

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high energy-content goods, will have a much greater impact on local air cargo demand. In general, it is the overall health of the local economy that will be the primary driver of local air cargo demand.

It is the role of regional air cargo hub for the southern Caribbean where SH&E sees the most potential for Piarco to achieve major growth in air cargo service and revenue. Unlike local cargo demand, which is basically fixed in the short-term, airports compete against each other for transit traffic on the basis of efficiency and cost and while location is still vital, there are a variety of things that an airport can do to make itself more attractive as a hub.

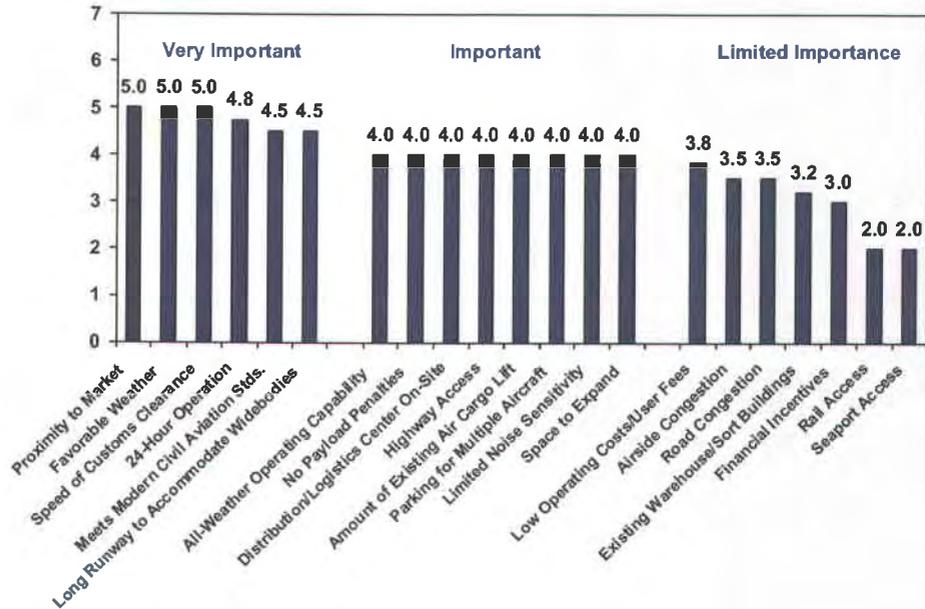
In general, key prerequisites for a successful hub operation (whether cargo or passenger) include the following:

- Central location with respect to traffic flows and major markets
- Traffic flows of sufficient density to enable high aircraft utilization and frequent service
- Strong base of local traffic

SH&E has conducted surveys on the relative importance of different attributes in making an airport attractive to cargo airlines as a hub location. Exhibit 3-9 below displays the results of these surveys, ranking airport attributes by importance. While the survey does not take into account all of the issues specific to the Caribbean, it does highlight some of the advantages and challenges that Piarco faces in promoting itself as a regional cargo hub.

Exhibit 3-9: Customer Importance Rating of Cargo Airport Attributes

(Scale: 5 = Most Important, 1 = Least Important)



Source: SH&E Survey

In terms of those attributes ranked as “Very Important”, Piarco is well positioned in some but badly positioned in others. Regarding proximity to market, Piarco is not very well located for omni-directional intra-Caribbean traffic flows, but it is near several large and mid-size markets (Venezuela, Barbados) and markets that have few long-haul and medium-haul nonstops (Guyana, Suriname). More importantly, the Piarco local market can itself support a significant amount of air cargo service. In the Caribbean Basin, which has numerous small markets separated by water, cargo carriers operate many multi-stop routes, filling up and unloading the aircraft along the way. Having a large local market to anchor each end of the route (or midway along a circular route) makes it easier to keep the load factor high, and Piarco is such an anchor market for north-south routes through the eastern Caribbean. It is also a good location for consolidating cargo from the relatively small Guyana and Suriname markets for shipment to Miami. Amerijet’s existing Piarco network takes advantage of these factors.

Because it is outside the Caribbean’s hurricane belt, Piarco ranks higher in terms of favorable weather than islands further north, which may experience sporadic airport shutdowns during the hurricane season. As for meeting modern civil aviation standards, Piarco is one of the more modern airports in the region, and Trinidad & Tobago has regained its status as a “Category 1” country in the U.S. FAA’s

classification of aviation safety oversight regimes. In addition, its runway is long enough for widebody flights without significant payload restrictions.

In terms of customs efficiency and operating hours, Piarco is at a competitive disadvantage as a regional hub. Interviews with cargo operators indicate that they are not satisfied with the current customs processing, especially on the south side of the airport where the cargo facilities are located. Unlike customs at the north side passenger terminal, which is open twenty-four hours per day, the south-side customs station operates only eight hours per day and frequently has backlogs. (When a cargo operator needs to use the south-side facility outside of scheduled hours, it must pay expensive overtime costs.) Cargo carriers also state that delays in customs processing of aircraft parts create hold-ups in the maintenance of their planes.

Cargo operators at Piarco have also expressed a need for a variety of other improvements, including additional cargo warehouse space, a new south-side ground service equipment (GSE) maintenance facility, and an overnight facility for live animals. Amerijet has indicated that it will need additional warehouse space if it is to expand its Piarco operations, and the warehouse currently used by Servisair is noticeably substandard. Mail transshipped over Piarco currently stays in the hands of the ground handlers, which can present security issues, so a secure area for mail transshipment may be warranted. As for GSE maintenance, a common area for south-side operators would be beneficial, as the current ad-hoc set-up may be unsafe. Transport of live animals, such as pet dogs, cats and horses, plus birds and reptiles exported from Guyana poses another challenge, as Piarco lacks an overnight facility for the animals, and the local airport veterinarian is reluctant to support animal transshipment without one.

A major issue that does not show up in the above-referenced survey is the price of jet fuel. Because fuel prices are relatively uniform across airports in North America or Europe, airports in those regions do not compete on that basis, but it is a major issue in the Caribbean, where prices can vary drastically between islands due to shipping distances, refinery locations and government policy. The fact that many Caribbean air cargo routes are operated with older-generation, less fuel efficient, aircraft heightens the impact of fuel price differentials. Because Trinidad is a major location for petroleum production and refining, the base cost of fuel there is lower than in other Caribbean islands where fuel must be shipped by sea. However, fuel is more expensive at Piarco⁶² than it is at Miami or Venezuelan airports (where government subsidies make prices especially low), and this is a disincentive for carriers that

⁶² due to the high cost of trucking fuel from the south of the island to POS.

might otherwise expand their Piarco service. Cargo operators interviewed by SH&E have remarked that they would consider launching additional Piarco routes if fuel were cheaper (though it should be noted that these interviews took place before the most recent drop in worldwide fuel prices.) The planned pipeline that will directly connect Petrotrin's Pointe-a-Pierre refinery with the airport will likely decrease fuel costs.

Seaport access is another attribute that ranked low in importance in the survey but which may be more important for a Caribbean air cargo hub. Because ocean shipping and air cargo are on opposite ends of the speed and cost spectrums, they are not often combined because sea-air transport usually cancels out the benefits of each mode. However, increasingly, as fuel costs rose in 2007, shippers increasingly used the alternative of sea-air as a competitive balance between speed and cost savings. Because of the short distances between major destinations and the uneven distribution of long-haul air cargo service in the region, there is an established market for sea-air transshipment in the Caribbean. Evidence of this includes the fact that a significant amount of fresh produce is shipped as ocean freight from Trinidad to Barbados, where it is transferred to Europe-bound aircraft. If Piarco had additional Europe service, this diversion of local air cargo demand to an alternate channel and location might be reversed, and Piarco could attract freight shipped by boat to Trinidad and sent onward by air.

The amount of existing service from other passenger and cargo carriers can be a significant factor in an airport's attractiveness as a potential cargo hub. ("Amount of existing lift" ranks as highly important in the above-referenced survey.) For a carrier that focuses on short and medium-haul operations within the region, the availability of long-haul widebody service from other airlines expands the potential market for its own services, as it can tap into intercontinental markets by connecting its routes to the other carriers' long-haul routes. In this regard, Piarco suffers from a lack of widebody passenger service, with only one daily MIA 767 nonstop (American Airlines) and three weekly British Airways one-stop B777 flights to London via Saint Lucia. Since the cancellation of BWIA's POS-London flight in April 2007, there has been no scheduled nonstop service between Piarco and Europe, and carriers such as Amerijet and Laparkan expect that they could feed their short-haul POS-Caribbean and POS-South America flights with a significant amount of Europe cargo.

Exhibit 3-10 illustrates Piarco's current weakness in widebody and long-haul passenger service relative to other airports in the Caribbean Basin. Because it is not a major tourist destination (at least compared with other Caribbean islands), Trinidad has far less widebody passenger service and no scheduled non-stop to Europe.

Exhibit 3-10: Weekly Widebody Departures at Caribbean Airports, Mar. 2009

Airport	City/Island	Country/Territory	Total	South	
				America	Europe
MIA	Miami	United States	416	189	94
HAV	Havana	Cuba	54	3	44
PUJ	Punta Cana	Dominican Republic	46	2	28
PTP	Pointe-A-Pitre	Guadeloupe	36	1	33
SDQ	Santo Domingo	Dominican Republic	35		18
BGI	Barbados	Barbados	34	1	21
FDJ	Fort de France	Martinique	33		32
PAP	Port au Prince	Haiti	22		
ANU	Antigua	Antigua/Barbuda	19	1	12
CUR	Curacao	Netherland Antilles	18		17
MBJ	Montego Bay	Jamaica	18		5
SXM	Saint Maarten	Netherland Antilles	12		6
BON	Bonaire	Netherland Antilles	11	4	5
NAS	Nassau	Bahamas	11		5
AUA	Aruba	Aruba	10		4
POS	Port Of Spain	Trinidad & Tobago	10		
UVF	Saint Lucia	St. Lucia	10		6
VRA	Varadero	Cuba	10		7
POP	Puerto Plata	Dominican Republic	8		7
LRM	La Romana	Dominican Republic	7		6
STI	Santiago	Dominican Republic	7		
TAB	Tobago	Trinidad & Tobago	6	1	1
BDA	Bermuda	Bermuda	5		5
KIN	Kingston	Jamaica	5		5
GCM	Grand Cayman	Cayman Islands	4		

Source: OAG Schedule files, March 2009

Exhibit 3-10 underscores the difficulty Piarco would face in positioning itself as an intercontinental hub for South America-Europe air cargo traffic, as a large portion (if not most) of the air cargo between Europe and South America is transported in the bellyhold of passenger aircraft. The key cargo markets in South America are served from Europe principally by widebody passenger flights – which have doubled over the past decade. Passengers and airlines prefer to fly direct to the ultimate destination, if at all possible, and with the technology of today's aircraft means that using Piarco as a "tech stop" is not a viable proposition. Attracting new passenger service to Europe and lower South America on the basis of the local market is not unrealistic for Piarco, but it will be a long-term effort that is outside the scope of this study. However, it should be noted that the ability to fill widebody belly space with local cargo and cargo from the flights operated by a regional hub carrier does make it easier to attract a long-haul service. Likewise, the addition of long-haul widebody passenger service would strengthen Piarco's position as a regional cargo hub.

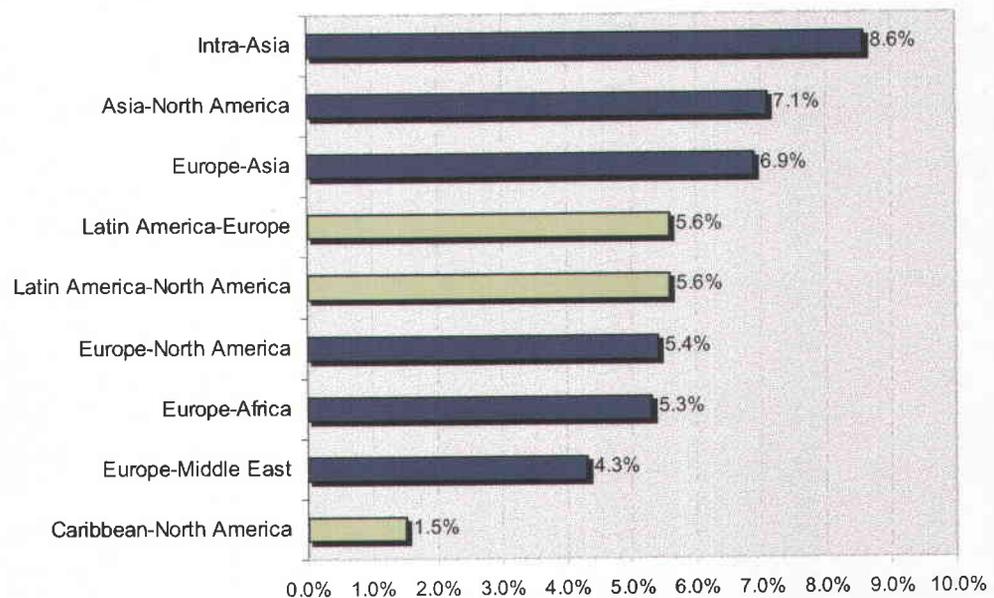
While a lack of long-haul passenger service is an obstacle to Piarco positioning itself as an intercontinental cargo hub, which SH&E does not see that as realistic opportunity, that is not to say that there are no opportunities for Piarco to serve a

niche role in connecting North America-South America and South America-Europe markets. Piarco freighter routes already connect certain points in northern South America with North America, and there are several air cargo markets in which Piarco could potentially serve as a connecting point.

Air cargo volumes from South America to Europe and North America (and vice versa) are among the smaller segments of world air cargo, but they have been expanding at over 5% per year for the last five years.

Exhibit 3-11 below shows the projected intercontinental air cargo growth rates from Boeing's World Air Cargo Forecast for the next twenty years. Similar projections of intra-Caribbean cargo traffic are not available, but forecast growth of intra-Caribbean passenger traffic is significantly lower than that forecast for most other regions of the world, which indicates that the inter-Caribbean cargo growth rate will probably also be lower. Caribbean-North America air cargo traffic is forecast to grow at only 1.5% per year over the next two decades, which suggests that the region's airports should not focus solely on North America if they want to achieve higher cargo growth.

Exhibit 3-11: Projected Region-Pair Cargo Market Growth, 2008-2027



Source: Boeing World Air Cargo Forecast, 2008.

In its previous report to GOTT, SH&E examined opportunities for Piarco to position itself as a technical stop for North America-South America and Europe-South America freighter traffic. It concluded that there was limited potential to attract freighter carriers to Piarco as a tech-stop along these intercontinental routes, particularly those carriers operating older-generation freighters with shorter range

capability. In the case of U.S.-South America traffic, Piarco is a stop on several routes (to/from Guyana and Suriname), but there is no shortage of other stopping points in the region, and almost all stops are made for local cargo loading or unloading. The potential for freighter tech-stops at Piarco is mainly along Europe-South America routes, because of the longer distances and lack of intermediate markets. However, Piarco would have to compete against several other well-established intermediate points such as Dakar (DKR) in Senegal and Sal (SID) in Cape Verde.

Exhibit 3-12: Circuity of Europe-South America Stopping Points

Circuity = (total distance via intermediate points) / (nonstop distance)

Route	Miles	Circuity via:			
		POS	MIA	DKR	SID
Paris to:					
Bogota	5,369	2%	13%	22%	16%
Buenos Aires	6,894	11%	31%	1%	0%
Guayaquil	5,986	1%	9%	18%	13%
Lima	6,383	0%	13%	11%	7%
Santiago	7,249	5%	20%	3%	1%
Sao Paulo	5,837	20%	48%	1%	0%
Frankfurt to:					
Bogota	5,644	2%	12%	20%	14%
Buenos Aires	7,144	11%	29%	1%	0%
Guayaquil	6,261	1%	8%	16%	11%
Lima	6,661	0%	12%	10%	6%
Santiago	7,515	5%	19%	2%	1%
Sao Paulo	6,082	20%	46%	1%	0%
Amsterdam to:					
Bogota	5,492	2%	12%	23%	17%
Buenos Aires	7,119	9%	27%	1%	0%
Guayaquil	6,108	1%	7%	19%	14%
Lima	6,534	0%	11%	12%	8%
Santiago	7,454	4%	17%	3%	1%
Sao Paulo	6,065	18%	43%	1%	0%

Source: SH&E analysis

Exhibit 3-12 shows the distances of several Europe-South America routes and the circuity of those routes via different intermediate points, including Piarco, Miami, Dakar and Sal. All of these routes are either at the limit or outside the payload range of the widebody freighters in service today, so stops along the way are needed unless the aircraft carries a less-than-full load. For routes to western South America, Piarco would be a viable intermediate point because of its low circuity, but for eastern destinations like Sao Paulo and Buenos Aires, flying via Dakar or Sal is much more direct. For almost all Europe-South America routes, flying via Miami is quite circuitous. However, it must be stressed that the intermediate stops are generally dictated by potential for local cargo, and purely technical stops are rare. Without large volumes of local cargo coming to or from Europe, as compared to alternate

points such as Dakar, Piarco will find it difficult to position itself as a major intermediate point for Europe-South America traffic. SH&E believes that a few carriers might consider Piarco as a tech-stop if it were to offer incentives such as fuel subsidies, but the potential is not large.

Recommendations

There is potential for Piarco to grow its cargo traffic with subsequent benefits in the form of increased aeronautical fees, cargo handling fees, facilities rentals and fuel sales. Expanding the airport's cargo business may also help Piarco attract more passenger flights, support other airport business segments and strengthen Trinidad's position as a regional business center. SH&E believes that Piarco has the best chance of achieving these goals by leveraging its strong local market demand and strategic location to position itself as a regional cargo hub for the Southern Caribbean. To a certain extent, the airport already serves this role, and it should focus its efforts on helping incumbent cargo carriers expand their operations within the region and attracting new carriers that can tap into the power of the regional hub. In particular, it should ensure that Amerijet, the airline showing the highest propensity for growth at Piarco, has the facilities and services that will allow it to expand its services.

In order to support the development of the regional cargo hub at Piarco, the airport should focus on three key areas:

- **Improve cargo facilities:** Larger, more modern cargo warehouse, sorting and support facilities are needed to accommodate (and attract) additional cargo service.
- **Improve customs processing:** Customs processing must be improved in terms of speed and hours of operation.
- **Establish a Free Trade Zone (FTZ):** The airport should seek FTZ status for at least part of the cargo area in order to make Piarco an optimal location for transshipment and value-added logistics activities

The current Piarco land use plan calls for the development of a new cargo village, and SH&E believes that AATT should consider this as a high priority for the airport. To the extent possible, all cargo facilities at the airport should be located in the same contiguous area and share common support facilities, such as GSE maintenance areas. Specialized facilities such as a live animal overnight facility, a veterinary office, and a mail transshipment center should be considered, in addition to larger cold storage areas for perishables. Assuming that AATT intends to proceed with this cargo facilities expansion, SH&E will provide more sizing and other

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recommendations following the development of traffic forecasts and financial models.

The speed of customs clearance is the subject of multiple complaints from cargo operators at Piarco (indeed, at almost every airport), however it is of particular concern for an airport that seeks to position itself as a hub for cargo transshipment. The current division of cargo facilities which are located both on the north and south sides of the airport has created inefficiencies related to customs, and less than satisfactory services on the south side of the airport. SH&E recommends the GOTT provide an extended customs processing schedule at the southern (cargo area) customs station. Current cargo traffic does not justify a 24-hour customs at this point, and it might never reach that point, but cargo operators do need more than the current 8-hour schedule. Regardless of the schedule, the airport and the government should endeavor to shorten customs processing times, ideally to one hour or less, and consider ways to expedite any processing that affects transshipments. If customs backlogs continue, the airport may be in danger of losing transshipment operations to other islands or even losing a portion of local air cargo to ocean shipping.

The designation of part or all of the airport cargo area as a Free Trade Zone could reduce the customs processing burden while stimulating new cargo traffic and related logistics activities at Piarco. Several other airports in the Caribbean have onsite FTZs, and the establishment of one at Piarco would help the airport maintain its competitive position as a regional hub. SH&E recommends that FTZ designation be an important element of AATT's cargo strategy, and this opportunity is evaluated in greater detail later in this report.

As fuel prices are an additional factor in the attractiveness of a hub, AATT should examine ways to make Piarco more competitive in this regard. Because freighters used in Caribbean and Latin America markets tend to be older and less fuel efficient, the fuel price differential between airports is especially important; Amerijet's 727s are a case in point. A previous study by SH&E found that a fuel price subsidy might help to attract new service, but it also cautioned that in the absence of other facilities enhancement and customs efficiency initiatives, discounted fuel prices alone would not be sufficient. With a new fuel pipeline due to connect the airport with oil refineries, the transport component of Piarco costs will hopefully decrease, but the airport should also consider ways to ensure that competitive market forces constrain the prices charged by its current and future fuel providers.

A previous SH&E study found that increased cargo activity at Piarco would generate additional revenue to the airport of approximately US\$3,000 per aircraft turn. This, along with cargo's role in strengthening other airport ventures, improving prospects

for new passenger service, and stimulating local economic activity, make the development of a regional cargo hub at Piarco a very attractive proposition. To ensure that the hub develops and remains competitive with other locations in the region, Piarco and AATT must ensure that existing and prospective cargo operators enjoy an efficient and low-cost operating environment and have room to grow as conditions warrant.

3.2.3 Maintenance, Repair and Overhaul (MRO)

Third-party aircraft Maintenance, Repair and Overhaul (MRO) is a \$41 billion global business. A growing number of airlines, including the majority of U.S. carriers, outsource the heavy maintenance and engine overhaul of their aircraft to external providers that specialize in this work. Component maintenance (avionics, landing gear, etc.) and line maintenance are also frequently outsourced to MRO shops. Increasingly, airlines from all over the world are sending their aircraft abroad to MROs in the developing world, where labor rates are lower but maintenance standards are high. Outsourcing MRO work allows airlines to avoid the high fixed costs of a full-fledged heavy maintenance department with highly specialized employees and equipment that may be utilized sporadically, whereas third-party MRO providers enjoy benefits of scale by serving multiple airlines. Even large airlines with efficient heavy maintenance departments have found that outsourcing MRO activities can be more cost effective to accommodate seasonal overflow of in-house work.

After analyzing the market for MRO services in the Americas, including the Caribbean and North, Central and South America, SH&E has found that there is sufficient demand to warrant a new third-party MRO center in the Caribbean. Because airlines in the Caribbean have few competitive options for outsourced maintenance within the region, and are generally forced to send their aircraft farther afield for servicing, a closer MRO center would be an attractive option. Moreover, Trinidad is sufficiently close to both North America and South America that a MRO center there would be able to tap into demand from all of the Americas, a vastly larger market than the Caribbean alone. The last two decades have seen a large increase in the amount of heavy maintenance work outsourced by U.S. airlines to MRO shops in Central America, especially for narrowbody aircraft, and a MRO center at Piarco would offer many of the same advantages as the Central American MROs. Though labor and logistics costs in Trinidad are somewhat higher than in Central America, they are still much lower than in the U.S. and Canada. Trinidad & Tobago has the advantage of being an English-speaking nation; most potential airline customers will be from English speaking countries, and English is the working language for most worldwide aircraft maintenance. Perhaps most importantly, Piarco

already has a likely third-party MRO provider in Caribbean Airlines. After outsourcing its heavy airframe maintenance to external MRO shops for several years, Caribbean Airlines has once again begun to perform this work in-house, and it aims to begin offering its services to third-parties in the next few years. By working with Caribbean Airlines (and investors) and offering suitable facilities for expanded MRO activity, the airport and the Government of Trinidad and Tobago (GOTT) can foster the development of a successful MRO business at Piarco.

3.2.4 MRO Industry Structure and Trends

There are four key segments to the commercial aircraft MRO market, as detailed below in Exhibit 3-13:

Exhibit 3-13: MRO Service Segments

MRO Segment	Activities	Frequency
Engine Overhaul	Off-wing maintenance, engineering and technical support for engines	Varies
Component Maintenance	Off-wing maintenance of removable systems such as avionics or landing gear	Varies
Line Maintenance	Minor airframe and on-wing engine maintenance, A-Checks and B-Checks	A-Check: monthly B-Check: 3 months
Heavy Maintenance Visits (HMV) & Modifications	Airframe maintenance or modification requiring significant access, specialized tools and expertise	Every 12-18 months (C-Check)

Note: Frequency of maintenance checks varies by aircraft type, operator, flight hours and cycles

Source: SH&E

Engine Maintenance is the largest MRO segment in terms of third party revenues, and it typically accounts for 50% of total aircraft maintenance costs. Because engines are removed from the aircraft for major maintenance and do not follow the same maintenance schedules as the airframe, they may be serviced at specialized facilities other than those servicing the rest of the aircraft. A significant portion of engine maintenance work is carried out by the engine manufacturers themselves or their joint ventures with large MRO providers or airlines. Jet engine maintenance and overhaul procedures are less labor-intensive and more equipment-intensive than airframe maintenance, and they have been slower to migrate to lower-wage countries than airframe maintenance. Both worldwide and in North America, airlines currently outsource 75% of off-wing engine maintenance work.⁶³

⁶³ Aviation Week & Space Technology, January 28, 2008

Component Maintenance includes the repair and overhaul of parts and subsystems, such as landing gear or avionics that can be removed from the airframe for separate maintenance. Component maintenance is often performed by the component supplier, though major MRO shops also incorporate the same services into their own offerings. On a worldwide level, airlines outsource 77% of their component maintenance.⁶⁴

Line Maintenance includes A-Checks and B-Checks, as well as minor unscheduled airframe maintenance and on-wing engine maintenance. In order to keep aircraft utilization high, airlines fit these procedures into times when the aircraft is remaining overnight at a location with line maintenance personnel and facilities. Line maintenance is most often done at an airline's hubs and larger outstations. While it is usually performed by the airline's own maintenance department, an increasing number of carriers are outsourcing line maintenance at their non-hub locations to external providers, thereby reducing the number of stations where they need to have maintenance staff and equipment and making their aircraft scheduling more flexible. According to worldwide airline industry surveys, around 15% of line maintenance is outsourced, but that number is expected to grow considerably as more large MRO providers begin to incorporate it into their offerings.⁶⁵

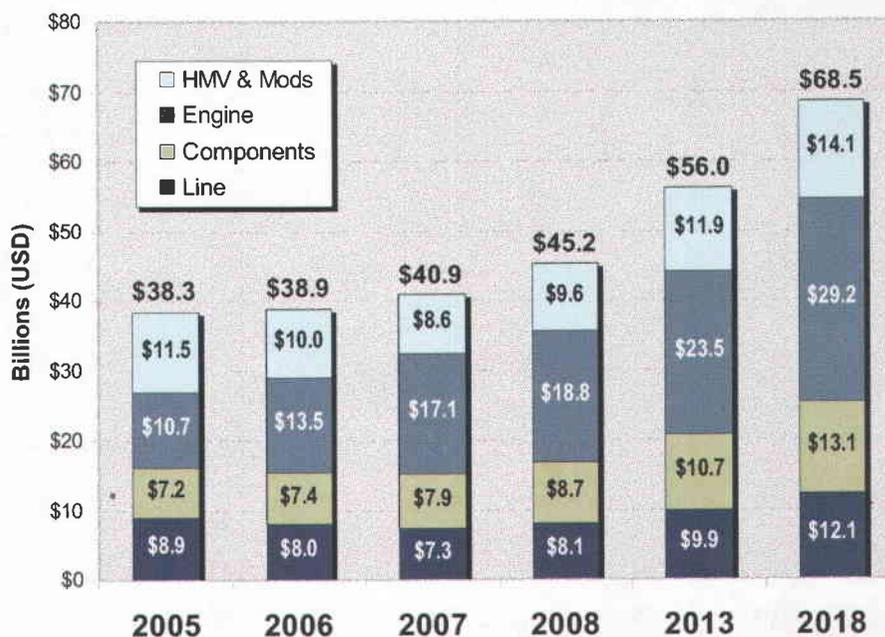
Of the four MRO segments, HMV & Mods is the most labor intensive, and therefore most likely to be outsourced to shops in lower-wage locations. HMV includes C- and D-Checks, and Mods include cargo conversions, installation of winglets and other such major modifications. A C-Check, one of the most commonly outsourced procedures, usually entails the removal of the entire interior and every access panel in order to inspect the entire airframe. A narrowbody C-Check typically takes three to six weeks and costs between \$600,000 and \$1.2 million, depending on the size and age of the aircraft. The relatively long duration and large cost of a C-Check mean that the incremental time and cost incurred in flying the aircraft to an external facility, even one located on another continent, is small relative to the overall cost of the check and smaller than the cost savings from using an external provider. Worldwide, airlines currently outsource 53% of HMV & Mods work, but North American airlines are particularly reliant on third-party providers, outsourcing 65-70% of their airframe heavy maintenance.⁶⁶

⁶⁴ Overhaul & Maintenance, April 2008

⁶⁵ AeroStrategy

⁶⁶ Overhaul & Maintenance, April 2008

Exhibit 3-14: Forecast of Global Third-Party Aircraft MRO Services

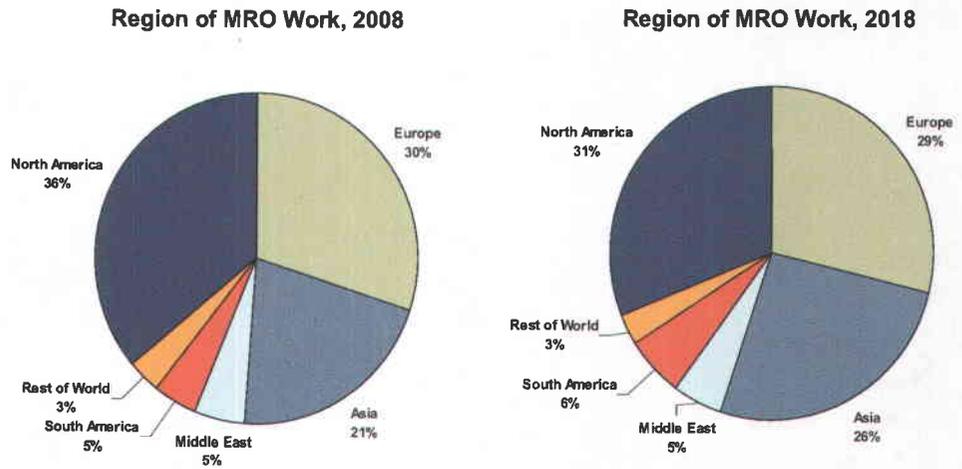


Source: Overhaul and Maintenance, 2008 MRO Forecast

As Exhibit 3-14 shows, global third-party MRO work is projected to grow by 52% over the next decade (an average of 4.2% per year), which is faster than expected fleet growth, as airlines outsource a larger portion of their maintenance. Outsourced engine maintenance is set to grow at the fastest rate (4.5% per year), but all segments are expected to exhibit solid growth. The HMV & Mods segment is expected to grow at 3.9% per year to \$12.1 billion in 2018.

The vast majority of MRO work is performed in North America, Europe and Asia, but the percentage done in North America and Europe is declining as airline fleets in other parts of the world grow more quickly and North American and European airlines make greater use of MRO providers in the developing world. Exhibit 3-15 shows the current and projected distribution of MRO work by region.

Exhibit 3-15: Global MRO Services by Region, Current & Forecast



Source: Overhaul and Maintenance

Note: North America includes Central America & Caribbean

The MRO Opportunity for Piarco

The current MRO market in North America (including Central America and the Caribbean) is estimated at USD \$16.9 billion. Of this, the Caribbean market represents only a tiny portion, consistent with its smaller fleet size. There are currently only 59 active commercial jets in the Caribbean, compared to over 8,000 in North America.⁶⁷ Assuming that MRO work is proportionate to the Caribbean percentage of the North American fleet, and that airlines in the Caribbean have their MRO services performed within the sub-region, the Caribbean MRO market is less than 1% of the overall North American market. This translates into a total commercial jet MRO spend in the Caribbean of \$117 million in 2008 and around \$127 million by 2017.

⁶⁷ ACAS, October 2008

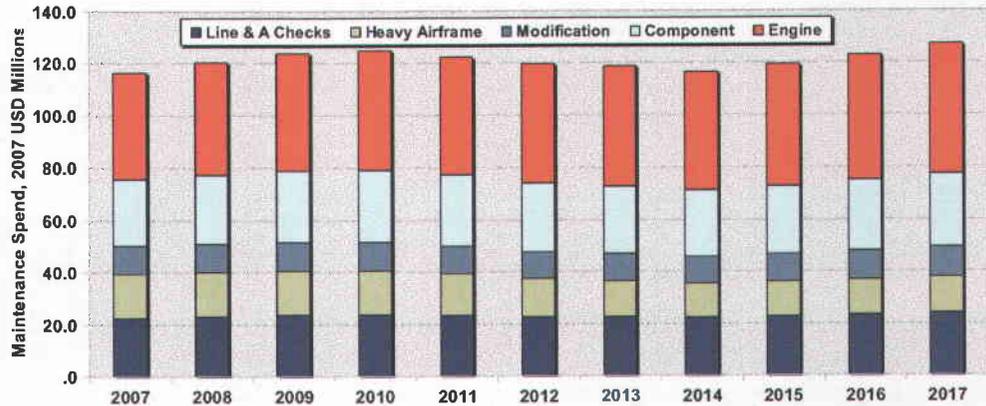


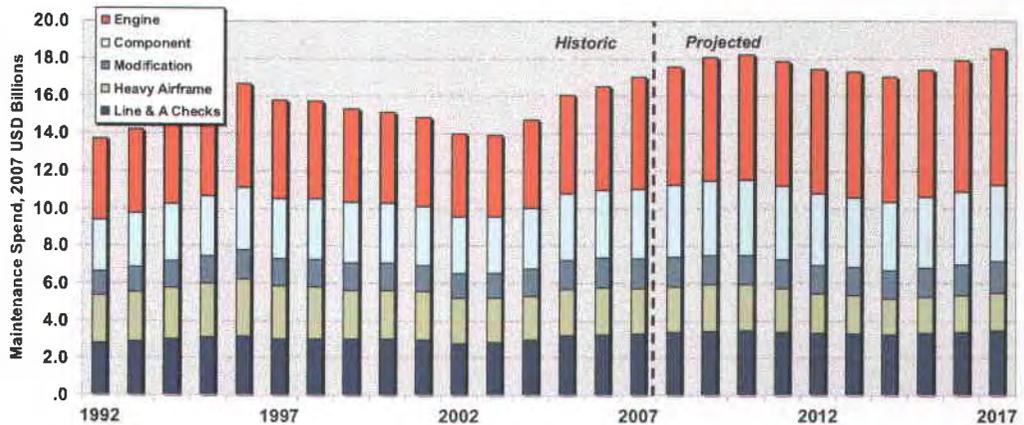
Exhibit 3-16: Forecast Jet MRO Spend in the Caribbean, by Category

Source: SH&E Analysis

Total expenditures by Caribbean carriers on the two most likely segments of the business that a third-party MRO would undertake in the region – heavy airframe maintenance and modifications – represent a \$28 million market. Total Caribbean MRO spend on heavy airframe maintenance is estimated to be just over \$17 million at present, decreasing to \$14 million by 2017, as newer commercial jet types that require less maintenance in the first years of operation are introduced in the region. Total Caribbean MRO spend on modifications is estimated to be just under \$11 million at present, rising to around \$11.5 million by 2017.

Given the small size of the Caribbean MRO market, it is more appropriate for a Caribbean MRO provider to focus on the entire Americas market, including North, Central and South America. Exhibit 3-17 shows SH&E’s forecast of commercial MRO spend in the Americas by segment. As the opportunities for heavy airframe maintenance, such as C-Checks, differ from those in aircraft modifications, those are broken out separately. Engine maintenance is projected to experience the strongest growth, while heavy airframe maintenance shrinks slightly in later years due to the retirement of older aircraft.

Exhibit 3-17: Americas MRO Spend by Business Segment, Historic & Projected

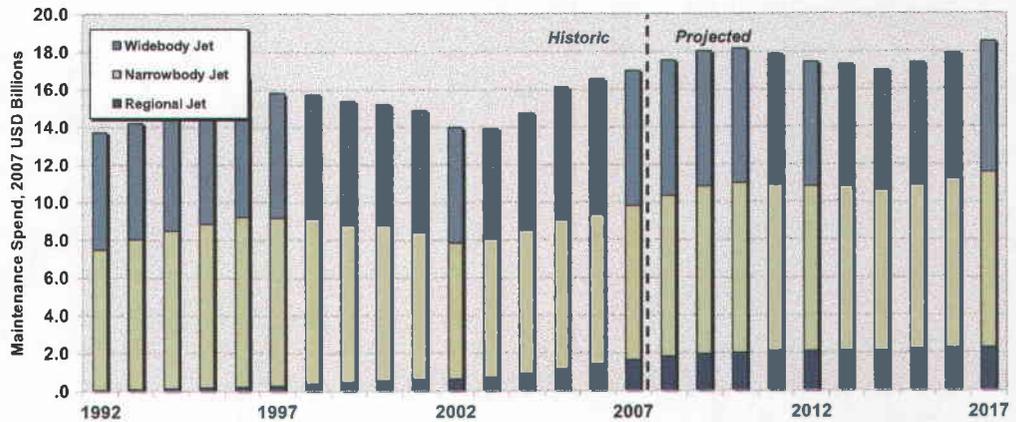


AVERAGE ANNUAL GROWTH RATES						
SEGMENT	1992-1997	1997-2002	2002-2007	2007-2012	2012-2017	2007-2017
Line & A Checks	1.5%	-1.5%	3.3%	0.3%	0.9%	0.6%
Heavy Airframe	2.3%	-3.1%	0.1%	-2.9%	-1.0%	-1.9%
Modification	2.4%	-1.8%	3.4%	-1.0%	2.1%	0.6%
Component	3.2%	-1.5%	4.5%	0.6%	1.3%	0.9%
Engine	4.0%	-3.3%	6.1%	2.2%	1.7%	2.0%
Total	2.9%	-2.4%	4.0%	0.5%	1.2%	0.9%

Source: ACAS, SH&E Projections

Narrowbody and widebody jets represent, and will continue to represent, a majority of the commercial jet MRO market in the Americas, with regional jets slowly gaining share. This follows the trend seen in the fleet development, with continued development of additional point-to-point markets in the Americas, especially in the U.S., requiring smaller aircraft due to smaller market sizes for routes not already served. The recent crisis in the airline sector has reduced the number of 50-seat regional jets in service in the U.S., with many of them moving to airlines overseas, and that may reduce demand for maintenance of the smallest RJs.

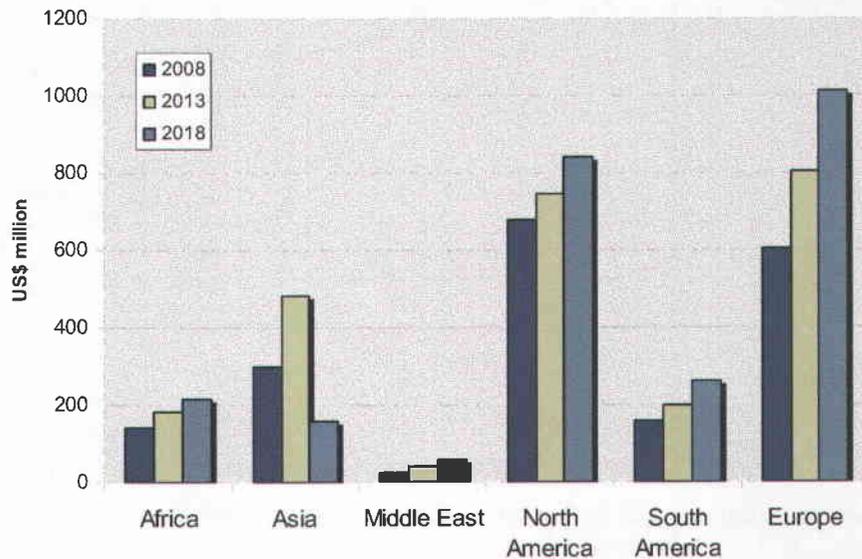
Exhibit 3-18: Americas MRO Spend by Aircraft Category, Historic & Projected



Source: ACAS, SH&E Projections

The MRO market for commercial turboprops is expected to grow from approximately \$1.9 billion in 2008 to just under \$3 billion in 2018. The North American market is currently worth around \$680 million, and set to reach \$840 million by 2018. Exhibit 3-19 below shows the expected growth of turboprop MRO work by region.

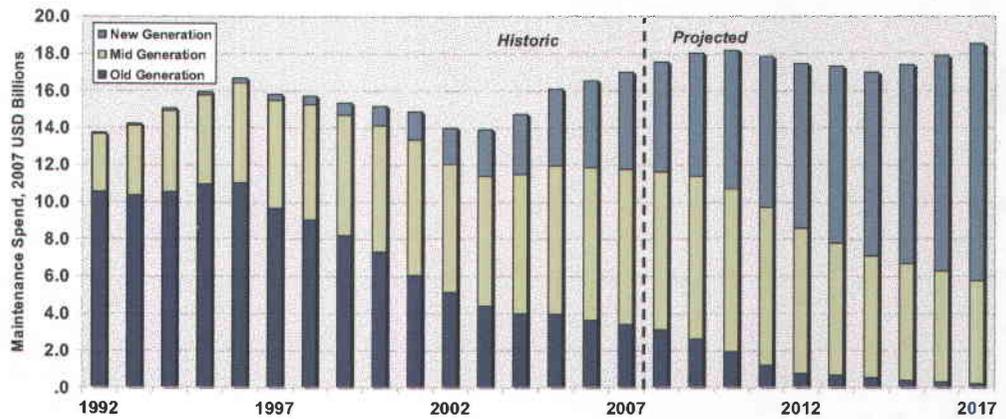
Exhibit 3-19: Turboprop MRO Spend by Region, Historic & Projected



Source: Overhaul & Maintenance, May 2008

Middle generation aircraft currently generate the largest MRO demand in the Americas. As with the trends seen in the global fleet, and for the same underlying reasons, this demand is expected to taper-off slowly, replaced primarily by MRO demand for what are now new-generation aircraft.

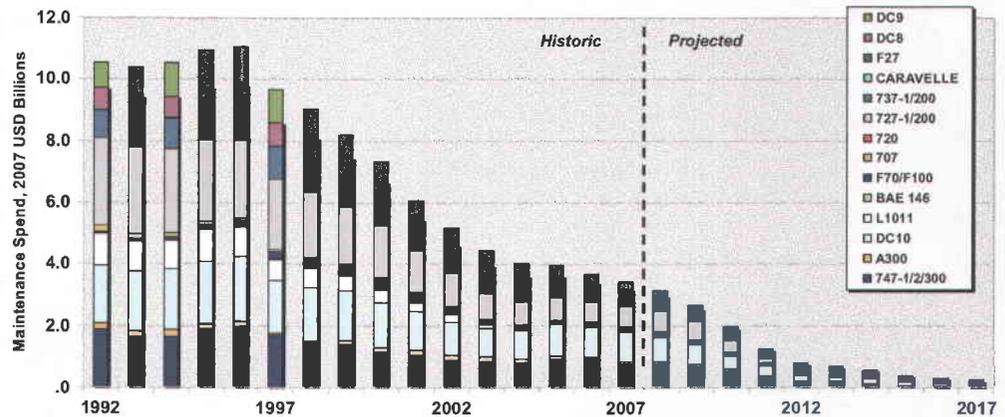
Exhibit 3-20: Americas MRO Spend by Aircraft Generation, Historic & Projected



Source: SH&E analysis

Continued retirements and decreased utilization of old generation aircraft will make the MRO demand for older generation aircraft nearly disappear by the end of the decade.

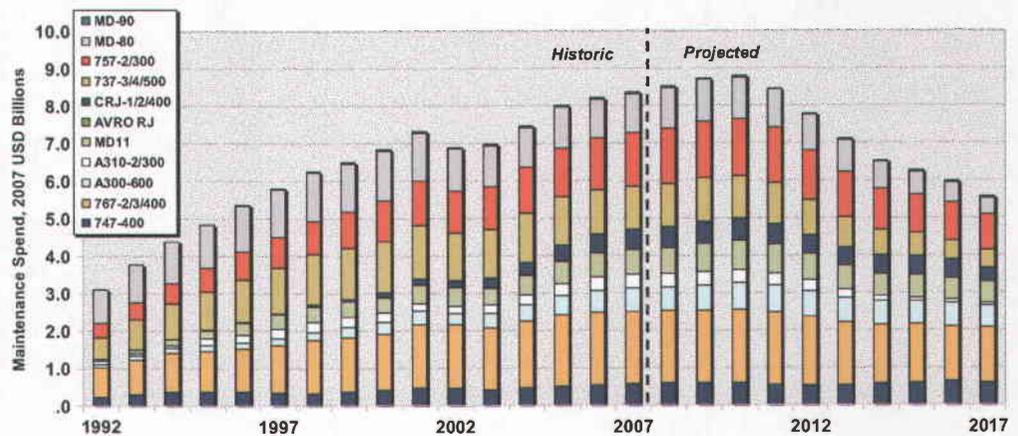
Exhibit 3-21: Americas MRO Spend: Older Generation Aircraft



Source: SH&E analysis

During the first years of the forecast, mid-generation aircraft MRO demand will increase, followed by a decline in later years. However, in 2017, MRO demand for mid-generation aircraft will still be 67% of the 2007 market.

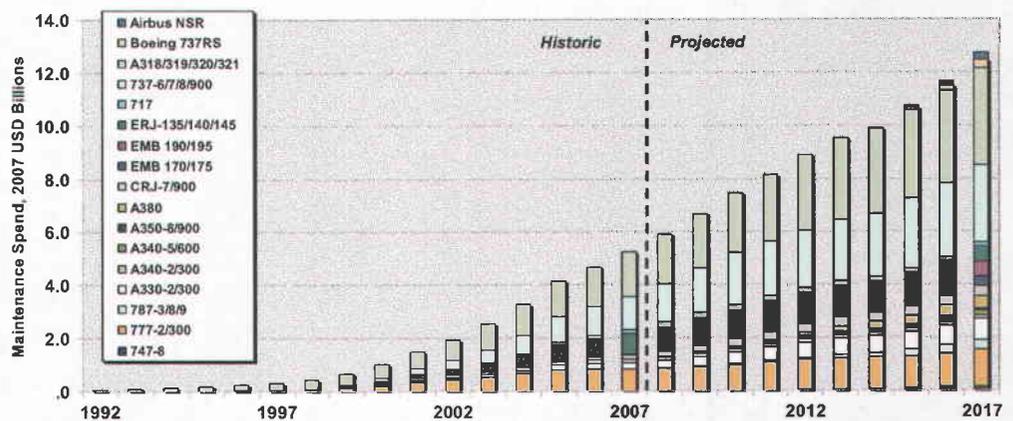
Exhibit 3-22: Americas MRO Spend: Mid-Generation Aircraft



Source: SH&E analysis

The Americas commercial MRO demand for new-generation aircraft – most of which are now in production – is projected to grow substantially through 2017 and beyond. By 2017, the A320 and 737NG families will be the largest drivers of new generation aircraft MRO demand in this region.

Exhibit 3-23: Americas MRO Spend: New Generation Aircraft



Source: SH&E analysis

The experiences of successful MRO providers in Central America, detailed in Section 3.3 of this report, demonstrate that a focus on the entire Americas market is not at all unrealistic. Over the last two decades, U.S. airlines have been sending a significant number of aircraft to MRO shops in Mexico, Costa Rica, El Salvador and Panama for heavy maintenance; SH&E projects that this trend will accelerate as U.S. carriers become more comfortable entrusting maintenance to MROs in the developing world. Most industry observers expect North American narrowbody heavy maintenance work to continue migrating south, and an MRO facility at Piarco

should be able to tap into this trend. Labor cost, productivity, and the availability of skilled labor are key drivers of third-party maintenance advantage, and Trinidad & Tobago is competitive in all three.

Exhibit 3-24, which compares aircraft maintenance labor rates across world regions, illustrates the major rationale for outsourcing heavy maintenance to lower-cost region locations. Wages for skilled aircraft maintenance personnel tend to be 30-50% lower in Central America and the Caribbean than in the U.S. The labor cost advantage of a Trinidad-based MRO appears similar, though more research on the full cost of labor will be needed; Caribbean Airlines has stated that its base hourly rate for maintenance staff is \$16-\$18 (USD) per hour, compared with the \$60 per hour rate at the U.S. MRO provider to whom it has previously outsourced its C-Checks.

Exhibit 3-24: Indicative Heavy Maintenance Labor Rates



Source: SH&E Analysis

As indicated in the chart above, labor rates in the U.S. and Canada, while not the highest in the world, are much more expensive than those in Central America, South America, the Caribbean and Asia. Therefore, even with the additional cost of a longer ferry flight to these regions, the economic benefit remains very compelling for airlines to outsource work to these less expensive regions. However, for narrowbody aircraft, the savings are less than they are for widebodies, so sending them to MRO facilities that require long, multi-stop ferry flights is not attractive.

For regional jets, because of range limitations, there is limited opportunity to conduct maintenance outside of the carrier's general operating area. Therefore, because of the prevalence of regional jets in North America, this presents a large market for third party MROs. Over the past few years, smaller regional jets have become too small and inefficient for many of their intended services in North America, and while these aircraft are being phased out in the next wave of re-fleeting, it is often the case that

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used aircraft from the United States end-up in other parts of the Americas, still in the general capture area of Piarco.

The turboprop operators in the Caribbean region are forced to ferry their aircraft to Canada as mentioned earlier due to a lack of competitive MRO support in the region. Although there are certainly providers (such as Caribbean Airlines) who are capable of performing maintenance on turboprops for their own fleets and possibly for third parties, relationships and effective marketing campaigns remain the key to doing business in the region. With the right sales strategy and the shop performance to back it up, turboprop operators would most likely take advantage of a Caribbean-based MRO at Piarco.

Due to the presence of Caribbean Airlines, Trinidad already has a base of skilled aircraft maintenance workers. Although the maintenance and engineering department of BWIA was downsized as the airline went out of business and became Caribbean Airlines, the latter now has a heavy maintenance staff of approximately 130 employees, of which 40 are support staff. (The airline's total maintenance staff is around 200 employees.) In order to deal with a potential shortage in skilled maintenance workers, the airline has established a relationship with an aircraft maintenance training school in Guyana, which sends its students to Caribbean Airlines as apprentices. The first such apprenticeship program will begin before the end of 2008 and will have approximately 12 pupils per session. In addition, there is the possibility of establishing an aircraft engineering or maintenance program at the University of Trinidad & Tobago.

In the summer of 2008, Caribbean Airlines completed an in-house C-Check on one of its 737-800s, the first one it has performed itself since BWIA outsourced all of its heavy maintenance to the U.S.-based Delta Tech Ops. The airline estimates that it saved around \$500,000 by completing the check in-house, due mainly to its lower labor costs. The second C-check on a 737-800 is currently underway. The airline now plans to perform heavy airframe maintenance on all of its seven 737NGs and five Dash-8 turboprops in-house. The airline plans to conduct five 737 and two Dash-8 C-checks in 2009.

Having revamped its heavy maintenance department under the supervision of Boeing and other consultants, and having seen that it can complete the C-Checks in-house in a competitive time-frame and at a significantly lower cost, Caribbean Airlines has expressed an interest in establishing a third-party MRO operation within a few years, possibly as a separate business spun off from the rest of the airline. The third-party MRO center would focus, at least initially, on C-Checks for the 737NG (-700, -800, and -900 series) and Dash-8, the aircraft in which Caribbean Airlines already has

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expertise. Later on, the MRO center could begin to offer other types of maintenance (engine overhaul, components repair, and outsourced line maintenance), either itself or in partnership with an additional third-party operator. Discussions with Caribbean Airlines indicate that they are unlikely to perform engine maintenance at first, but that component repair (especially for Dash-8s) is more likely.

A third-party MRO center at Piarco will face a number of well-established competitors in the Americas. The largest MROs are based in the United States and currently service most of the major fleets in these regions. Service providers include AAR, TIMCO, Pemco, ST Aerospace, Empire Aero, Goodrich and Avborne. Canada also has several large MROs, including Aveos (formerly ACTS), avMax, Cascade, Kelowna Flightcraft, Premier Aviation, and ExelTech Aerospace. In Latin America, service providers that currently perform third-party MRO work include VEM, Aeromexico, Mexicana, Aeroman (now an Aveos company), ST Aero/PAE, Coopesa, AIPSAC and SEMAN. The North American providers generally offer service on widebody, narrowbody, regional jets and turboprops, whereas the Latin American providers focus primarily on narrowbodies and widebodies. Exhibit 3-25 shows the locations of competitive repair stations in the Caribbean Basin and northern South America.

Exhibit 3-25: MRO Centers in Caribbean Basin and Upper South America



Source: SH&E

Of the other large airlines in the Caribbean, Air Jamaica currently outsources its heavy maintenance to a combination of U.S., Mexican and Canadian MRO providers, and LIAT outsources much of its heavy maintenance to the Canadian MRO Exel Tech but does perform some of its own C-Checks. Air Caraïbes uses a combination of SR Technics and North American MROs. Cubana, which operates Russian

aircraft that are outside the expertise of most MRO facilities in the Americas, performs some of its own heavy maintenance and sends the rest to Mexico and Europe.

Recommendations

An aircraft MRO center is a higher-risk venture than some of the other initiatives evaluated in this report, as it requires a long-term commitment from an anchor airline tenant to succeed. However, Piarco already has an anchor tenant in Caribbean Airlines, which has demonstrated the ability to perform heavy maintenance and is well-positioned to move into this and other segments of the third-party MRO business.

Caribbean Airlines would enter the third-party MRO business with a number of advantages. It has a well-trained, English-speaking workforce, and it currently possesses all of the necessary certifications for 737NG and Dash-8 maintenance. Its focus on 737NG maintenance is advantageous, as this aircraft family will account for around \$3 billion annual MRO spend in the Americas by the middle of the next decade. Airlines in the Caribbean operate a large number of Dash-8s, Caribbean Airlines' other area of expertise, and they are obvious targets for an MRO center in the region. The location of Piarco, while slightly farther from the U.S. than most Central American MRO centers, is generally within nonstop range of the 737 models it would service. Despite these advantages, however, a number of steps must be taken by Caribbean Airlines, the AATT and the Government of Trinidad & Tobago in order to ensure that a third-party MRO center at Piarco is successful.

First of all, a corporate structure for the MRO must be determined. It could be a division of Caribbean Airlines, a wholly owned subsidiary, a joint venture with another MRO operator or an independent operation spun off from the airline. If the MRO is not to be a division or subsidiary of Caribbean Airlines, it would probably need to have an exclusive contract to perform services for the airline (for at least five years) in order to ensure that it has a sufficient work in its early years. If the MRO is to be anything other than a division of Caribbean Airlines, it will need to segregate maintenance assets and personnel who would be involved in new MRO entity prior to beginning operations as a separate entity.

A third-party MRO center would require a number of facilities projects in order to ensure that it has sufficient capacity and complies with the highest quality and safety standards. Caribbean Airlines' hangars at Piarco are sufficiently sized for two maintenance lines, but the addition of third-party business would probably require an additional one or two lines in order to achieve good economies of scale. In addition,

the airport needs to relocate the existing facilities to accommodate expansion of the taxiway.

The current hangars are not fully enclosed, and dust and debris from the airport's busy helicopter traffic can enter the hangars and cause problems for maintenance operations. (The shifting of helicopter flight plans may be sufficient to ameliorate this, but full enclosure would be preferable.) SH&E considers the construction of a new aircraft maintenance area in the eastern sector of the airport to be the optimal solution, as this would allow for state of the art facilities and offer room for expansion in later years. Although the MRO facility is likely to focus on narrowbodies and turboprops, space should be designated so that the new hangars can be expanded to fully enclose a widebody aircraft in future years, as the venture may want to pursue widebody work at some point, and FAA and JAR rules require that maintenance hangars fully enclose the aircraft.

Aircraft maintenance is quite capital intensive, and an expansion of facilities, tooling and training to accommodate additional maintenance lines will require a large amount of start-up funding. Even as an outgrowth of Caribbean Airlines' existing maintenance operation, a third-party MRO venture would likely require government support in terms of launch assistance, training credits and regulatory accommodation. The Government of Trinidad & Tobago can also support the MRO center through the designation of a Free Trade Zone encompassing the MRO facility, ensuring that parts are not held up in customs and that no duties are paid on parts installed in the aircraft of foreign airlines.

Unless it seeks to be a joint-venture partner in the MRO venture, the AATT is not likely to be a driving force in its creation, but there are several steps it can take to support its creation and facilitate its efficient operation. First, the airport should designate land on the east side of Piarco for a new aircraft maintenance area, as already specified in the most recent airport land study, and ensure that the designated land will be sufficient for growth of the MRO center over the next few decades. As for the construction of the new facilities, the AATT can either allow the MRO center to build new hangars itself under a land lease, or it can build the new facilities and lease them to the MRO center. The latter will entail a greater financial risk for the airport, but it will also reduce the start-up capital that the MRO center will need to obtain.

3.2.5 Airport Free Trade Zone

Free Trade Zones have become a common presence at airports worldwide, and are considered essential for any major cargo hub. At the most basic level, an FTZ is an

area designated by a national government as a place where goods can be stored or transformed with no import duties (and little in the way of other fees) unless they are imported for consumption in the country. This makes it easier for cargo to be transshipped, as it need not go through any customs clearance. It makes the FTZ an attractive location for companies to assemble or process imported components or ingredients and export the finished product, as they do not have to pay duties on the imported components. Because an FTZ is designed to facilitate foreign trade, it usually also offers quick customs clearance for those imported goods that are destined for the local market.

Most major FTZs offer much more than just the ability to avoid import duties. In order to promote exports, attract foreign companies, and develop logistics business, governments and government-designated private operators usually offer a wide range of services and privileges at an FTZ. Exhibit 3-26 lists some of the most common services, resources and privileges offered at FTZs and compares them to those currently available at Piarco.

Exhibit 3-26: Services & Resources Typically Offered at FTZs

Services & Resources	FTZs	POS
Range of in-bond services on-site (customs brokers, forwarders)	X	X
Expedited customs clearance	X	
State-of-the-art customs clearance information system	X	
State-of-the-art communications network	X	
Assistance with commercial licensing	X	X
Banking & exchange services on-site	X	
International business center	X	X
Government hotline for provision of equipment and labor	X	
Free or subsidized education and training services	X	
Income, real estate and sales tax incentives	X	
Free currency conversion	X	
No expatriate employee restrictions	X	
Low-cost energy subsidy	X	
Equipment & machinery leasing support	X	
Commercial exposition center	X	
On-site tax-free retail	X	

Source: SH&E

FTZs, especially those that offer more than just exemption from import duties on re-exported goods, usually serve multiple roles. An FTZ typically functions as a logistics center, usually connected to the international transport links of an airport, seaport, or intermodal center. It serves as a center for export-oriented businesses and the companies that provide logistical, financial, legal and other services to the export sector. It is often a site for the manufacture of goods for export, in particular those goods that have many imported components or ingredients. Electronics and apparel manufacturers, for example, often locate their factories in FTZs in order to avoid paying duties on the imported components or textiles that are turned into televisions,

computers, or clothes and sent on to foreign markets. Because FTZ generally offer expedited customs clearance, even companies that are not export-oriented can benefit from locating at or near an FTZ.

Exhibit 3-27: Free Trade Zones in the Caribbean Basin



Source: SH&E

FTZs have been widely used in the Caribbean Basin to attract investment and industry, with Panama's Colon Free Zone, Freeport Free Trade Zone in the Bahamas, and Jamaica's Free Zones standing as well-known examples. (Exhibit 3-27 shows the locations of major airport FTZs in the region.) Some of these are focused mainly on transshipment, regional distribution centers and tax-free retail, while others, especially in Central America, are focused mainly on the production of goods for export. Those that are focused on production have generally targeted low-end, labor-intensive industries where low local wage levels offer an advantage. Trinidad & Tobago itself has one functioning FTZ at Point Lisas, on the west coast south of Port of Spain that has attracted food processing companies and a tire manufacturer. Few countries in the region have FTZs targeting high-tech industries.

Recommendations

The benefits of an FTZ are often considerable, with new jobs, industrial cluster development and increased international commerce among the most obvious. Of course, creating one may require significant investment and political will, and some FTZs fail to do more than serve as a location for the same economic activity that was already present. To maximize a new FTZ's chances of success, it should have a clear

focus that builds on the strengths of the local economy, infrastructure and workforce and creates synergies with other development initiatives.

Trinidad and Piarco have several advantages as an FTZ location. Trinidad is already recognized as one of the major industrial capitals of the Caribbean, with a financial sector to match. The island has political stability, a high level of economic development, a well-educated and relatively large workforce, and a large export sector. Piarco is already the center of an incipient air cargo hub for the region. However, Trinidad is not a low-cost operating environment, and a new FTZ there must have a different focus than many of the other FTZs in the region. An FTZ targeted at low-end, labor intensive manufacturing would not stand a good chance of success, nor would it be a good use of a valuable airport location.

An airport FTZ should play to the advantages of an airport location, leveraging its cargo service to attract manufacturers of high weight-to-value goods that depend on air cargo for the import of components or distribution of finished products. Such a focus will in turn support the further development of the regional air cargo hub. For Trinidad as a whole, it makes sense for any new FTZ to focus on those industries where the island has a comparative advantage. In addition to the advantages already mentioned, Trinidad also has low energy costs because of its status as a major oil producer and refiner, and it could attract the manufacture of high energy-content goods (those with energy-intensive production processes) through energy cost incentives. Examples include composite materials for the aviation and automotive industries and components for use in the local yacht-building industry. U.S., Canadian and European companies would be the most likely target tenants, but South American firms may also find an FTZ at Piarco attractive.

If AATT decides to proceed with the development of an FTZ at Piarco, there are several major steps it will need to take:

1. Determine scope and scale of FTZ

- AATT must first determine the optimal size and physical boundaries of the FTZ, taking into account other airport initiatives and their land use requirements. At an absolute minimum, the FTZ should encompass a significant part of the airport's future cargo area and any third-party MRO center, but the boundaries will have to extend farther if it is to host manufacturing and other new businesses. The undeveloped eastern sector of the airport is the logical location for new FTZ facilities, but the zone's boundaries could conceivably extend beyond the current airport estate to accommodate certain activities. It will be important to take into account the

need for physical boundaries (such as secure fencing) around the FTZ if it extends outside the airport's existing security fencing.

2. Develop business plan

- In order to target the right companies and industries and identify the infrastructure and services needed to attract them, AATT should engage current cargo operators, local businesses, and foreign companies (especially international logistics groups) in discussions of their needs and how an FTZ at Piarco might support them. Once it has decided on the industries to target and how the FTZ will support them, AATT can begin to develop a marketing plan, infrastructure plan and financial model.

3. Obtain FTZ designation and cooperation of other GOTT agencies

- Once a decision has been made to proceed with the FTZ development, AATT will need to obtain an FTZ designation from GOTT. This will require the specification of the zone's boundaries and of the trade and industrial activities that will be take place there.
- In order to facilitate international trade and business, an FTZ must minimize bureaucracy and make it easy to set up operations, employ workers and move goods. AATT will need to work with different GOTT entities to ease regulatory burdens and otherwise support companies that reside in the FTZ. The Customs and Excise Division of the Ministry of Finance will be a key partner, as it must implement new customs clearance processes and otherwise ensure the easy movement of imports, exports and transshipments. Government agencies that control taxation, labor, immigration, construction, training and utilities must also be involved in the design and development of the FTZ, as regulatory easements or service provision will be required of all of them. GOTT will need to design an energy incentive policy to offer low-cost energy to users in the FTZ, and investment in access roads, utilities and other infrastructure will probably be needed. For a high-tech FTZ, cooperation with local universities and research bodies will also be valuable.

4. Select developer and operator

- Assuming that the FTZ encompasses more than just the airport cargo and MRO areas, SH&E recommends that development and operation of the FTZ be entrusted to a private company under a long-term concession. In parallel with the other steps, AATT should identify private companies with experience developing and operating FTZs worldwide. These include a variety of real estate developers, third-party logistics operators, freight forwarders and port operators. Well-known names include Eagle Global

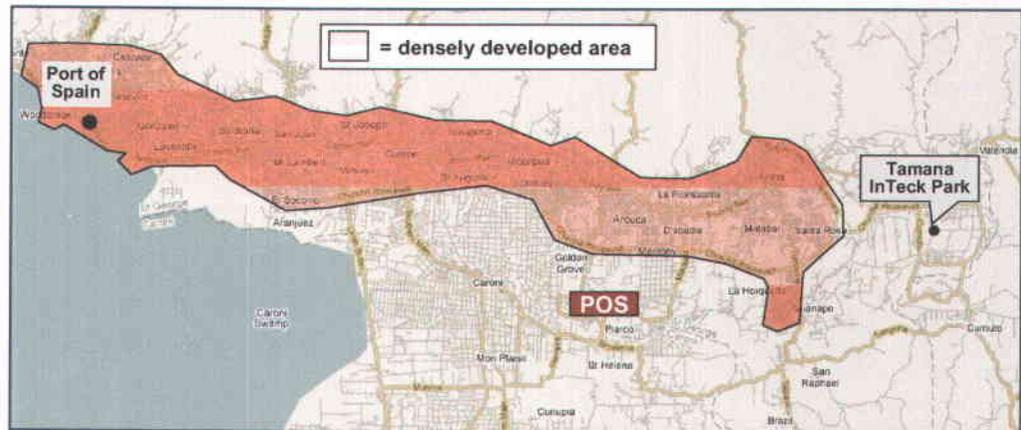
Logistics, Excel, Menlo Worldwide, ABSA (Brasil), Panalpina, UPS Logistics, Schenker, TNT Logistics, DHL Danzas Logistics, Maersk Logistics and Kuehne & Nagel. To attract a world-class FTZ operator, AATT and GOTT will need to demonstrate that they are implementing the regulatory measures and infrastructure investments necessary to make the FTZ a success.

The creation of an airport FTZ will be a complex undertaking that requires collaboration with a number of government and private entities, but the economic benefit to Trinidad and the airport would be substantial. Piarco stands to gain increased ground lease and other long-term revenue from the FTZ concession, in addition to aeronautical, fueling and handling fees from the air cargo activity generated by the FTZ. A high-tech FTZ could become a major national asset and fill a niche that has not yet been claimed by others in the Caribbean.

3.2.6 Business Estate

Airports are advantageous locations for many businesses, including those outside the aviation sector. For many businesses, especially those with significant international operations, close proximity to a major airport is a priority. Companies located at or near an airport enjoy greater convenience of employee travel and quicker access to air cargo service, and they can make use of the airport's lodging, restaurant and retail facilities. On-airport and near-airport offices are also easier for clients, suppliers and partners to visit. Moreover, an airport office location is often highly visible and prestigious. On Trinidad, the Piarco site of Piarco is an especially good location for many companies, and SH&E believes that there is an attractive long-term opportunity for Piarco to develop a business estate on the airport property.

Congestion on roads in and out of downtown Port of Spain has become a serious problem, making office locations outside the city preferable for many businesses. Over the last decade, commercial and residential development has been moving steadily eastward from the city into the suburbs of San Juan, Tunapuna and Arima. Two university campuses, the University of the West Indies and the University of Trinidad & Tobago, have been established in Tunapuna and Arima respectively. Further east, Tamana InTech Park, a major government-sponsored real estate development focusing on hi-tech business, research and education, is planned. The growth of development in these areas indicates that Piarco would also be a favorable location for commercial development. The proposed construction of an East-West Rapid Rail passing near Piarco would also make the airport a very convenient location for a large segment of the area's population to work.

Exhibit 3-28: Map of Densely Developed Areas in Relation to Piarco

Source: SH&E

An airport business estate typically includes corporate offices, warehouse/distribution space, retail and restaurant space, and parking for tenants and customers. Facilities for light industrial activities are also common. Likely tenants for a business estate at Piarco could come from a wide variety of industries, but freight forwarders and companies serving the airline sector would be obvious candidates. Companies and government agencies with a large amount of business in Tobago would also be likely candidates, as they would benefit from quick access to inter-island flights. Retailers would also be possible tenants, especially if GOTT were to allow tax-free shopping at the business estate. Convenience stores, cafeterias and restaurants to serve the office workers could also be needed, although concessions within the airport terminal could also suffice if the office park were directly adjacent.

Recommendations

SH&E considers an airport business estate to be an attractive long-term opportunity for Piarco. In addition to generating stable rental income, it has the potential to generate a small but real increase in passenger and cargo traffic by making air transport more convenient for companies locating there. Other airport businesses, such as landside terminal retailers and food and beverage outlets, could also benefit from increased patronage.

Despite the attractiveness of an airport location for many companies, it is important to remember that an airport business estate would be competing against other off-airport office developments on similar terms. Without an FTZ, which offers unique privileges to companies residing within its boundaries, an airport business estate's core value proposition is convenient access to the airport, and other nearby developments could offer almost the same level of convenience, minus the airport

location's noise and air pollution. Still, there is likely to be a segment of businesses for whom an on-airport location is much more preferable, and AATT must accurately identify these companies and quantify the amount of demand for office, warehouse and retail space that they represent.

Many of SH&E's recommendations regarding an airport FTZ also apply to an airport business estate. AATT must first determine the optimal size and physical boundaries of the business estate, taking into account other airport initiatives and their land use requirements. If both an FTZ and a normal airport business estate are to be developed, the relationship between the two in terms of connection, overlap or shared infrastructure must be decided. (It may be that a portion of the business estate is enclosed within the FTZ while another part lies outside it.) In the early planning stage, AATT should engage local and foreign businesses in discussions in order to target the right market segments and identify their facilities needs. Once it has decided on the industries to target and how the business estate will support them, AATT can begin to develop a marketing plan, infrastructure plan and financial model. In devising the business plan, AATT should look for synergies with existing facilities and concessions, especially the new airport hotel that is under development. As in the case of an FTZ, SH&E recommends that development of a business estate be entrusted to a private company under a long-term concession.

Although a business estate is much less complex than an FTZ in terms of regulatory issues, its design and construction will still require consultation and collaboration with other GOTT agencies for the provision of access roads, utilities and other related infrastructure. As for the provision of land, the airport's current land use plan already sets aside land for a business estate, and as long as this designation does not interfere with the pursuit of other priority commercial ventures at the airport, SH&E concurs with this recommendation.

3.2.7 Retail Estate

The rationale for establishing a retail estate at Piarco is similar to that of the business estate. Road congestion in and out of downtown Port of Spain has led many businesses to locate outside the city center, and commercial and residential development has been moving eastward into the suburbs. The path of development favors Piarco as a location for various types of commercial activity, as it sits along the major east-west route out of the city. Many of Trinidad's largest retail developments are now located along the Churchill Roosevelt, which runs along the north side of the airport. These retail developments include Valsayn Shopping Centre, Grand Bazaar and Trincity Mall, the latter two being among the largest shopping centers in the Caribbean. The possible construction of an East-West Rapid

Rail passing near Piarco would also make the airport estate a very convenient location for much of the area's population.

Exhibit 3-29 below shows the location of three of Trinidad's largest shopping centers. Although a new retail estate at Piarco would be competing with these developments, it would also benefit from their presence, especially that of Trincity Mall. The proximity of existing shopping centers often makes a location advantageous for new shopping centers, because consumers prefer to be able to visit multiple shopping facilities in the same area. The presence of an existing shopping center also validates the attractiveness of the general location for potential tenants of the new development.

Exhibit 3-29: Location of Shopping Centers near Piarco



Recommendations

SH&E considers an airport retail estate to be an attractive long-term opportunity for Piarco, as it has the potential to generate stable rental income and may have some small-scale synergies with the cargo hub. Tenants could include almost any type of retail establishment, from clothing stores to supermarkets, and would likely have some restaurants or fast food outlets as well. Depending on the location of the retail estate and its proximity to the terminal, there may be potential for travel-related establishments or other retail outlets that might draw airport passengers. In any case, it is important to consider the effect of new retail development on existing landside

airport concessions, which could lose business to new shopping and dining outlets outside the terminal.

Although a retail estate is an attractive long-term opportunity, the same caveats regarding a business estate also apply to a retail estate. While Piarco is a desirable location for retailers, it has no unique advantages over other nearby sites. Also, the current global and local economic environments could make financing difficult and potential tenants less numerous. Therefore SH&E recommends that AATT set aside land for a retail estate but wait until the economic conditions improve and the direction of the local commercial real estate market are clearer before proceeding with any major investments in this initiative. When and if AATT moves forward with a retail estate at Piarco, SH&E believes that the best location is along Churchill-Roosevelt Highway and/or BWIA Boulevard, where it would enjoy high visibility and easy road access. The estate should be developed under a concession arrangement with a term of 10 -15 years, after which the assets could revert to AATT. Any arrangement must also include reserve rights to protect airport rights for aviation development purposes.

3.3 SUCCESS MODELS

3.3.1 Introduction

SH&E has evaluated a broad range of airport commercial developments in the Caribbean, Latin America and other regions in order to determine the key drivers that could lead to the successful planning and execution of similar projects at Piarco. The case studies that follow include cargo-focused airports, MRO facilities, free trade zones, airport business estates, and retail estates, with the same airport hosting multiple types of development in most cases. Not all of the developments studied are airport initiatives per se, but they all have interdependencies with an airport. While each airport or related commercial development has its own distinct market characteristics, strengths and weaknesses, these experiences provide valuable insights into the opportunities and challenges for AATT in pursuing similar ventures.

The following table shows the facilities studied and the types of commercial development that they contain:

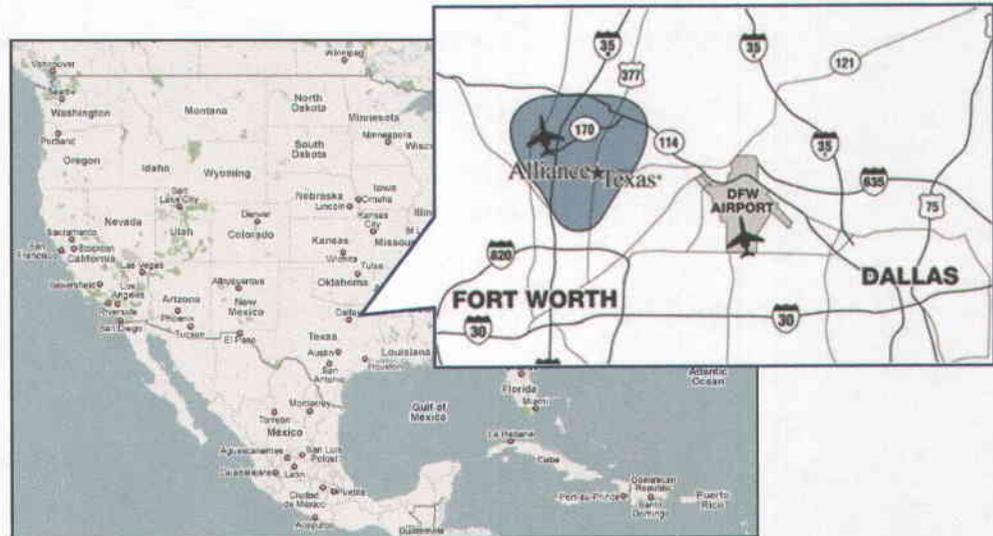
Facility	Location	Regional Cargo Hub	MRO Center	FTZ/Business Estate	Retail Estate
Alliance Fort Worth Airport	U.S.A.	X	X	X	X
Tocumen Intl Airport/Colon Free Zone	Panama			X	X
Comalapa Intl Airport/Aeroman	El Salvador		X	X	
Huntsville Intl Airport	U.S.A.	X		X	
Liege Airport	Belgium	X	X	X	
Sharjah Intl Airport	U.A.E.	X		X	

3.3.2 Alliance Fort Worth Airport (AFW)

Background and History

Alliance Fort Worth Airport (AFW) is an “industrial airport” dedicated to air cargo, corporate aviation and related activities, with no commercial passenger traffic. Located 14 miles north of Fort Worth, Texas, 39 miles northwest of Dallas and 23 miles northwest of Dallas-Ft. Worth International Airport (DFW), the airport anchors a 17,000-acre mixed-use development known as AllianceTexas, with residential, office, retail and industrial/warehouse properties. The airport is owned by the City of Fort Worth, but it has been privately developed and managed by the real estate firm Hillwood Properties and its subsidiaries. The development has been very successful, attracting more than 200 companies, 28,000 employees and \$6.5 billion in private investment.

Exhibit 3-30: Location of Fort Worth Alliance Airport (AFW)



AllianceTexas, which opened in 1989, was conceived and positioned as a complete intermodal logistics center, with rail and trucking facilities in addition to the airport. Its location in the central southern part of the U.S. allows for relatively quick surface transport to both coasts and Mexico. The site of airport was chosen because it was within the Dallas/Fort Worth metropolitan area (the country's sixth-largest) yet removed from dense residential areas where noise restrictions would prevent an airport from operating 24-hours per day. It is also adjacent to two major interstate highways, and an intermodal rail yard is located next to the airport.

Three major components of the Alliance development are:

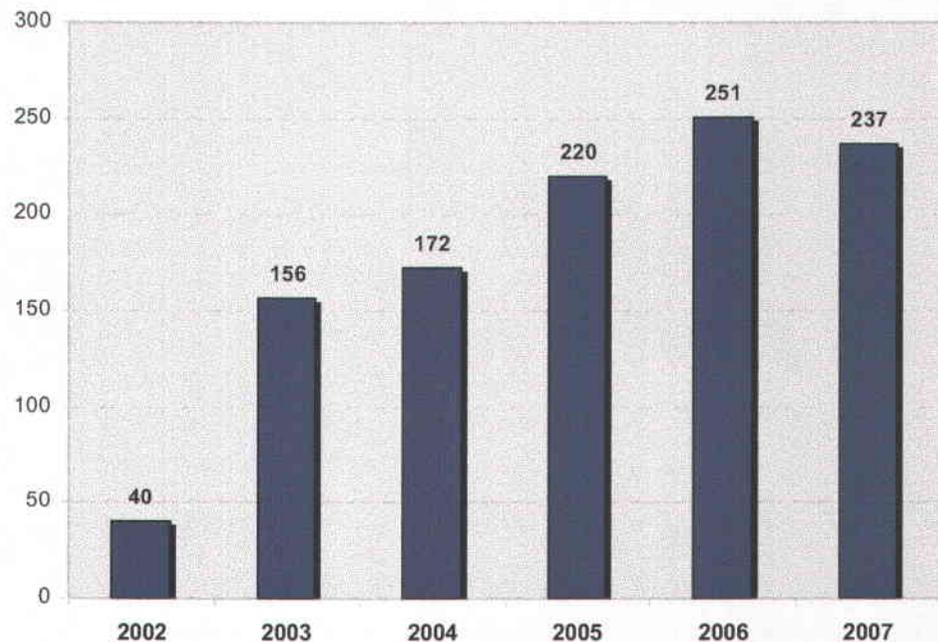
- Alliance Fort Worth Airport (AFW)
- Multiple business/industrial estates
- Multiple shopping centers
- Housing estates with 6,700 single-family homes

The 1,200-acre AFW airfield has two runways, one 8,200 feet long and the other 9,600 feet long, and the latter is due to be extended to 11,000 feet in order to allow the largest freighters to take off fully loaded with maximum fuel. The airport ramp has space to park multiple widebody aircraft, and almost all major airport tenants have direct taxiway access. The airport, which operates 24 hours per day, includes a cargo terminal, an MRO center, an FBO, and the offices of several aerospace

companies. Other tenants include a private jet charter company, a flight school, and a Federal Aviation Administration office.

Air cargo accounts for most traffic at AFW, and it has been growing at an average of 28% over the last five years. The airport has been home to FedEx's Southwest Regional Sort Hub since 1997, and the integrated carrier has service from AFW throughout the U.S. and service to Asia via Anchorage (Alaska). While FedEx accounts for the majority of the airport's cargo volume, other cargo carriers serve AFW on an ad-hoc charter basis, sometimes delivering expedited shipments for General Motors' automotive factory in nearby Arlington, Texas. In addition to the FedEx sort facility, AFW has a 99,000 square foot cargo terminal and cargo handling services provided by the firm Cargo Airport Services.

Exhibit 3-31: Fort Worth Alliance Airport: Air Freight Volumes (thousand tons)



Source: Air Transport Intelligence

Along with its advantageous geographic location and access to interstate highways, AFW has several major operational advantages as an air cargo hub. The airfield is uncongested and operates 24-hours per day. The on-site customs facility also operates 24-hours per day, and customs clearance times are generally less than one hour. Many third-party logistics providers offer their services at the airport and in the surrounding business estate. Alliance Operating Services, a subsidiary of Hillwood, offers warehousing and distribution, e-commerce fulfillment, light manufacturing

(assembly, reconfiguration, kitting, labeling, pick and pack, container loading and unloading), and inventory management services to many of the companies operating in the Alliance business estate. Another key advantage for cargo operations (and other business) is that the airport and the rest of Alliance are the site of a Foreign Trade Zone, allowing for the import, assembly, storage and re-export of goods without import duties or inventory taxes. The federally-designated FTZ status covers 2,000-acres, but this can be activated anywhere within the 9,600 acre Alliance development.

Aircraft maintenance is another major business at AFW. American Airlines, which has its headquarters in the Dallas area and its largest hub in nearby Dallas/Fort Worth International Airport (DFW), also has a major maintenance base at AFW. The facility is American's principal heavy maintenance base for its B767 and B777 fleets, and also the site for third-party MRO work that the airline performs for other airlines. The American facility occupies about 200 acres at AFW and includes a 781,000 square foot hangar, large enough to accommodate six widebody jets. The airport is also home to Texas Aero Engine Service LLC (TAESL), a joint venture between American Airlines and Rolls-Royce that repairs and overhauls the engines that American has on its 757 and 777 fleets, as well as the engines of many other airlines. TAESL has the capacity to overhauling 300 large jet engines annually, and it has overhauled more than 1,500 engines in the decade since it was established.

The entire Alliance estate includes 28 million square feet of office and warehouse facilities, some built by Hillwood and others built by tenants renting the land under long-term leases. These are spread over three main business estates:

- Alliance Gateway, a 2,000-acre industrial estate targeting manufacturing and distribution
- Westport, a 1,500-acre development targeting rail and intermodal distribution
- Alliance Commerce Center, a 300-acre development targeting small and medium-sized businesses

While the businesses located at AFW are all aviation-related, the tenants of the surrounding business estate are drawn from many different industries. Distribution centers and hi-tech manufacturing facilities are especially numerous, but other tenants include call centers, financial services companies, restaurant suppliers, printers and numerous other types of businesses. Many are drawn by the proximity to the airport, intermodal terminal and interstate highways, as well as the availability of logistics services, but many others chose the Alliance development because it offered reasonably priced, modern and convenient office space. The estate is so large that the developers have been able to build facilities of almost every type and price point.

Retail and dining facilities are also a prominent feature of the Alliance development. The estate contains multiple shopping centers with department stores, specialty retail, supermarkets, restaurants and entertainment facilities. Some of these, such as convenience and office supply stores, are focused primarily on serving the needs of other tenants, but Alliance also has several major retail complexes that draw their clientele from further afield in the Dallas/Fort Worth metropolitan area. Again, the advantage of the Alliance development for retailers is the availability of large tracts of land near a major metro area, located alongside major highways, at affordable prices. While the presence of logistics facilities is not a major factor in their choice of location, it is an added benefit for some stores to be near multiple suppliers' distribution centers.

Success Factors and Relevance to Piarco

The basic model for success at Alliance started with a large area of undeveloped land near a large population center with access to transportation corridors such as highways and railways. While the airport itself is AllianceTexas' single most important component, an important factor in the development's success was that it was conceived as a complete logistics and industrial center, rather than simply a site for air cargo operations. Surface transport was considered a priority from the outset, so the airport was sited alongside two highways and next to a major rail line. Another important success factor is the FTZ, which makes Alliance a preferred location for the assembly of imported components and the storage and distribution of imported finished goods. The FTZ and easy airport access attracted many manufacturers and distribution centers, which in turn generate demand for air cargo and other logistics services.

The airport's two largest tenants chose AFW for many of the same reasons. Both FedEx and American Airlines needed an uncongested facility with ample space for the construction of their facilities. Both companies needed an airport that permitted 24-hour operation, as freighter flights often depart or arrive in the middle of the night and aircraft arriving for maintenance often arrive at similar times. Efficient, 24-hour customs processing is important to both, as FedEx must avoid having packages held up in customs and American does not want to delay maintenance work while waiting for imported aircraft and engine parts to clear customs. FTZ status also benefits both companies, as FedEx can flow import and export merchandise through its sort hub with minimal hassles and American and its TAESL joint venture can perform maintenance on foreign airlines' aircraft and engines without being subject to import duties or customs paperwork.

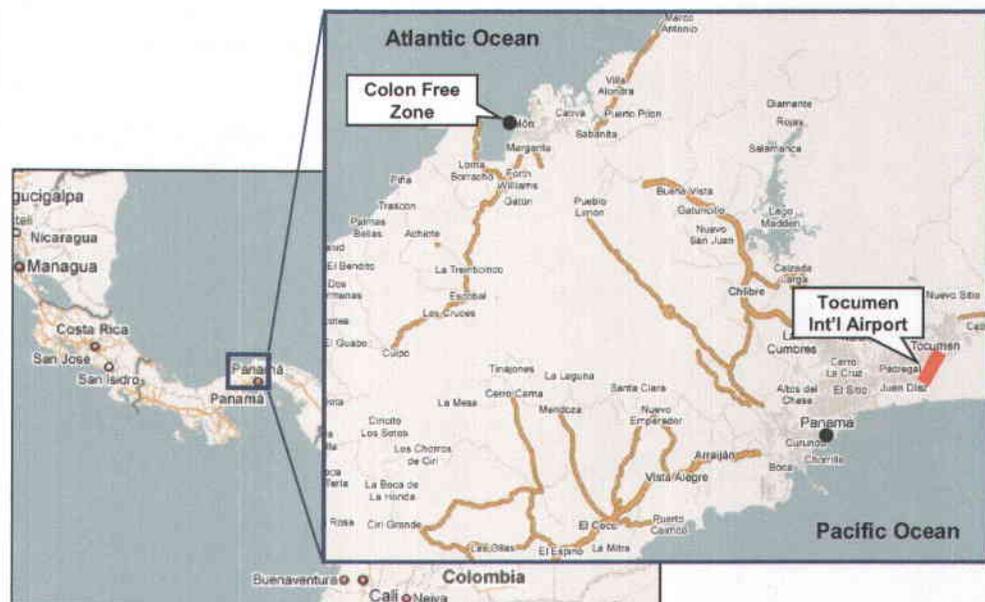
For Piarco, there are several key lessons from Alliance's experience. First of all, it illustrates how an airport and an FTZ/business estate can complement and strengthen each other, and that the presence of an airport can make a business estate in the outskirts of a metropolitan area competitive with office locations nearer to a city center. It also shows how an air cargo hub, especially one with FTZ status, can attract many other complementary businesses such as distribution centers and manufacturing. In addition, the experience of AFW and AllianceTexas demonstrates that even with a large and well-established airport nearby, a new facility with the right infrastructure, services and costs can become the preferred location for certain segments of the air transport market. In AFW's case, this includes not just air cargo, but also MRO activity.

3.3.3 Tocumen International Airport (PTY)

Background and History

Tocumen International Airport (PTY) is the primary airport serving the country of Panama and its capital. The airport is located 30-45 minutes southeast of Panama City, and slightly farther from the port of Balboa at the Pacific entrance to the Panama Canal. It is the hub of Copa Airlines, which offers many north-south international connections, and it handled more than 3.8 million passengers in 2007. Due to its proximity to sea ports on both the Atlantic and Pacific coasts, as well as the nearby Colon Free Zone, the airport also attracts a large amount of air cargo service and traffic. Because of its strategic location between Central and South America and that fact that it is the location of the Panama Canal, the country has long been one of the hemisphere's key logistics hubs, and PTY has benefited greatly from Panama's other logistics capabilities.

Exhibit 3-32: Locations of Tocumen International Airport and Colon Free Zone



While there is no business/industrial park at the airport, PTY benefits greatly from its access to the Colon Free Zone, which is located 80 miles northwest of the airport near the Atlantic entrance of the Panama Canal. The Colon Free Zone is the world's second largest free trade zone, after Hong Kong, handling US \$12 billion in imports and re-exports annually. The 433-hectare FTZ, which specializes in the duty-free import of merchandise from North America, Europe and Asia, and re-export to Latin America and the Caribbean, accounts for an estimated 10% of Panama's GDP and 80% of the country's international trade. In addition to exemption from duty on imported goods re-exported through the zone and an exemption from sales tax, companies locating there also enjoy fiscal benefits such as a tax exemption on income derived from abroad. These privileges have attracted around 1,800 tenants to the Colon Free Zone, and helped develop huge cluster of logistics providers engaging in storage and warehousing, consolidation and distribution, and value-added activities such as labeling and repackaging. In addition, the zone has a large duty-free shopping center that attracts many tourists and residents.

Although almost all goods coming into the Colon Free Zone arrive by sea, in-bond trucking is offered between the Free Zone and Tocumen Airport, and this generates a considerable amount of air cargo traffic. PTY handled approximately 82,500 tons of air cargo in 2007, making it the busiest cargo airport in Central America and the 12th busiest in Latin America. In addition to a large amount of belly-hold capacity from Copa and other passenger carriers, PTY has more than 80 weekly freighter aircraft departures, primarily to and from points in North, Central and South America, as well as the Caribbean. Cargo carriers serving PTY include AVECSA, Arrow Air, UPS,

Lan Cargo, Fedex, Cargolux, and Florida West, and the airport is a hub of DHL, which carries around 30% of the airport's total cargo tonnage. Cargo carriers are drawn to the airport's location, large local traffic base and excellent infrastructure, which includes two runways (10,000 feet and 8,800 feet long) and a large cargo terminal.

In the beginning of this decade, the Panamanian government launched an effort to develop Colon International Airport (CIA) next to the Colon Free Zone. The goal was to create a new passenger and cargo airport that would serve as a cargo hub and a distribution center for air imports. In 2002, a concession for the airport's development and operation was awarded to a private consortium, but the ambitious project floundered for several reasons. Probably the most important problem for the new airport was that PTY, although much farther from the Free Zone, had the advantages of being a major passenger hub with all the accompanying belly cargo traffic. The fact that PTY already had significant lift from passenger and freighter service, including widebody passenger aircraft movements to South America, North America and Europe, made it difficult to attract cargo carriers to CIA. The new airport's developers were overly optimistic in their demand projections, and they did not have the financial resources to execute plan. CIA does now receive a small amount of cargo charters, but it has not been a success by any measure, and PTY remains firmly entrenched as Panama's major cargo gateway.

Success Factors and Relevance to Piarco

The success of PTY as a passenger and cargo hub is due in large part to its strategic location, which is ideal for connecting North and South America, as well as intra-Central America traffic. This location and presence of the Panama Canal have allowed the country of Panama to develop as a major regional business center and fostered the growth of many trade and logistics businesses. Aside from the canal, the Colon Free Zone is by far the most important, and PTY has leveraged the capabilities of the Zone even though it is located some distance away.

The experience of PTY and the Colon Free Zone holds several relevant lessons for Piarco. First is that a strong FTZ can generate a significant amount of incremental cargo traffic for a nearby airport. Second is that the amount of existing lift from passenger carriers, especially long-haul widebody flights, is a major factor in attracting and keeping cargo carriers. This gives airports with passenger airline hubs a considerable advantage over other airports in gaining new freighter service. Finally, PTY's experience shows the value of integrating airport infrastructure and services into part of a larger local or regional logistics cluster.

3.3.4 Comalapa International Airport (SAL) / Aeroman

Background and History

Comalapa International Airport (SAL) is the main airport serving San Salvador, the capital of El Salvador, and the principal hub of the airline TACA. The airport handled approximately 1.6 million passengers and 30 million tons of cargo in 2007. Although the airport has been relatively successful in growing its passenger and cargo traffic, it is most notable as the home of Aeroman, a major MRO center that performs outsourced heavy maintenance for several North American airlines.

Aeroman began as the in-house heavy maintenance division of TACA and was established as a subsidiary of the airline in 1983. It started with a single one-bay hangar, which was completed in 1984 on land leased from the airport. One of the most significant events in the company's history was when it obtained certification as a repair station from the U.S. FAA in 1992, allowing it to provide heavy maintenance and modification services to U.S. airlines. For several years after that, the facility mainly carried out work on the aircraft of other Latin American carriers, but the certification was a stamp of approval that helped Aeroman attract airlines from quite far away, including Aerolineas Argentinas. In 2004, the company had scored a major win when the U.S. airline jetBlue contracted it to perform C-Checks on its A320s. (The fact that TACA was also an A320 operator, and had many years of experience maintaining that same model, was an advantage for Aeroman.) Since then, Aeroman's third party heavy maintenance business has grown considerably, and it is considered the top MRO center in Latin America. In 2006, the company was acquired by Air Canada Technical Services (ACTS), which has since been spun off by its parent as a separate company called Aveos.

At Aeroman's SAL facility, the company now performs around 100 heavy maintenance visits annually (mainly C-Checks) for TACA, jetBlue, US Airways and several major Latin American airlines. It has expanded its maintenance capability to cover not only the A320, but also the B737, B757, B767 and B727. In addition to its original single-bay hangar, facilities now include a new complex with a 225,000 square-foot hangar that can fully enclose four narrowbody aircraft simultaneously, along with back-shop, administration and storage space. The facility has a staff over 1,200 aviation technicians, engineers and support personnel.

Success Factors and Relevance to Piarco

Aeroman was one of the first Latin American MRO providers to attract heavy maintenance work from major North American airlines, and in doing so, it had several advantages and a few major challenges. Its low labor costs were a key

advantage, as it could perform maintenance much cheaply than North American companies. TACA's reputation for good maintenance practices also helped, and the carrier was recognized by Airbus as having a high maintenance performance. Aeroman's SAL location was also an advantage, as most narrowbodies can reach it nonstop from almost every airline hub in North America, and most of South America is also within reach. Of course, the fact that the company was based in a developing country in Central America also posed several challenges for Aeroman. Because El Salvador is a Spanish-speaking country, and most maintenance documentation is conducted in English, Aeroman recruits employees with good English skills and provides rigorous language training. Some North American customers were initially concerned about the level of technical skills in El Salvador, and Aeroman overcame this demonstrating superior performance in terms of quality and turnaround times. Some customers were also concerned about the potential for customs delays to impact maintenance schedules, but this has never been a problem because the Aeroman facility operates within an FTZ.

The experience of Aeroman is very relevant to Piarco and Caribbean Airlines, as it shows how a relatively small airline in what is generally considered the developing world can become an important player in the global MRO industry. Caribbean Airlines, though smaller than TACA, is now in a situation similar to that of TACA a decade ago. It has proven heavy maintenance capabilities for aircraft models that are widely used throughout the Americas, and it is located at an airport with a strategic location between North and South America. Aeroman's experience may also provide some guidance in terms of the growth path that a Caribbean Airlines/Piarco-based third-party MRO center might expect. In some ways Trinidad is an even better location for outsourced MRO work because English is the native language. However, labor costs are higher than in most of Central America, and GOTT will need to explore how to offset this. Another point that the Aeroman experience underscores is the importance of having FTZ status covering the MRO facility.

3.3.5 Huntsville Intl Airport

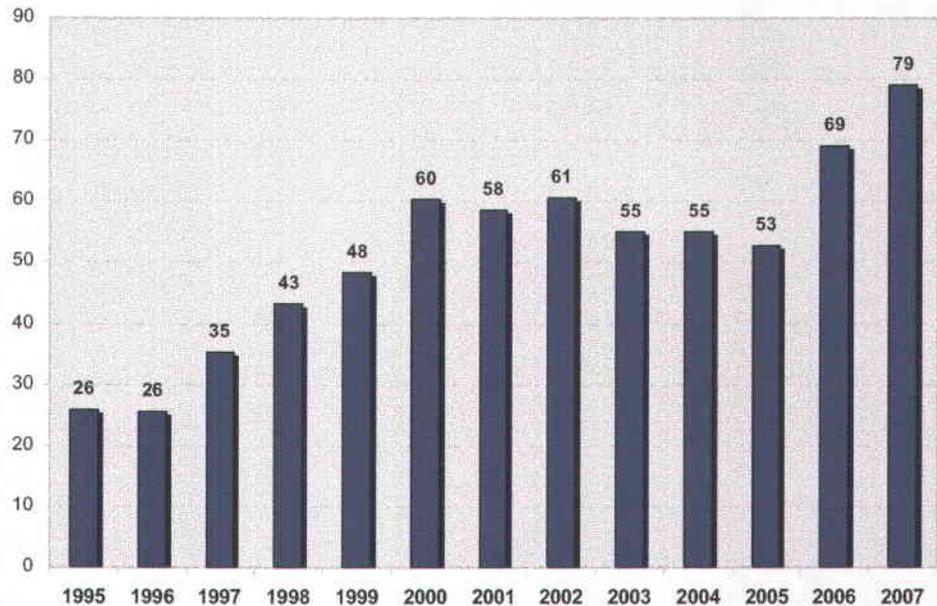
Huntsville International Airport is located nine miles south of the city of Huntsville, in the southern U.S. state of Alabama. The airport offers both passenger and cargo service, but its passenger service is limited to eleven domestic destinations, in line with the city's rather small population of around 200,000. The airport is part of the Port of Huntsville, an inland port which includes the airfield, a large airport industrial estate and an intermodal center where cargo can be unloaded from flights and directly onto trains. The airport occupies a total of 5,900 acres, including the 1,700-acre Jetplex Industrial Park.

Exhibit 3-33: Map of Huntsville Location



HSV is notable for its success in developing itself as an important international air cargo hub despite its small local market. It has done so by leveraging its location in the center of the southern U.S., within one day’s trucking distance of many major cargo markets, creating facilities to suit cargo airlines, and working with freight forwarders. As a result, the airport has experienced tremendous growth in cargo traffic and it has freighter service to Europe, Asia and Central America.

Exhibit 3-34: HSV Air Freight Volume (thousand metric tonnes)



Source: Air Transport Intelligence

The main catalyst for HSV's growth as a cargo hub was its selection by Panalpina, a giant European freight forwarder, as its new U.S. gateway. In the late 1980's, HSV was seeking to establish itself as a cargo airport, and Panalpina was looking for a U.S. gateway that was uncongested, central to much of the eastern and midwestern U.S., and well-connected surface transportation. The airport offered 24-hour operations, an onsite FTZ, runways capable of handling full-loaded widebodies, 1 million square feet of cargo ramp space and a commitment to making the necessary investments to support new cargo traffic. In 1990, Panalpina launched its very own 3x-weekly 747 route between Luxembourg and Huntsville. The route was operated by Atlas Air and operated by Cargolux crew, but it was dedicated entirely to freight shipments coordinated by Panalpina. This route, which has since grown to daily frequency, carries freight that is trucked to/from many different markets in the U.S. Its success put HSV on the map for international airlines and other logistics companies, and the airport now has extensive international freighter service. Ten international freight forwarders now operate at HSV, and Panalpina and its partner Cargolux (which still account for most HSV cargo) have built a 100,000 square foot warehouse and air cargo terminal.

The presence of an international air cargo hub, combined with intermodal facilities, has attracted numerous businesses to HSV's industrial estate, the 1,700-acre Jetplex Industrial Park. Tenants include a variety of electronics assembly and distribution facilities, aerospace manufacturers, logistics companies, retail distributors, and consumer product producers. The industrial estate is located in an FTZ, which is another key attraction for potential tenants. The commercial and industrial activity that Jetplex supports has helped to make Huntsville one of the region's major economic development success stories.

Success Factors and Relevance to Piarco

The success of HSV as a cargo hub has been the result of the location, infrastructure, good timing and an aggressive focus on the part of the airport operator. The Port of Huntsville, the agency responsible for HSV, focused on freight and logistics in general before going after air cargo in a serious way. It invested in the industrial estate, intermodal facilities and road improvements, and obtained FTZ status several years before the Panalpina opportunity presented itself. When it saw the opportunity, it made significant commitments to the route's success, purchasing two high loaders to service the Panalpina/Cargolux aircraft. It offers a "turn-key" solution that minimizes the investment that cargo airlines need to make to start new service there. An additional success factor that has often been overlooked by other airports was HSV's focus on freight forwarders, who are important drivers or influencers of cargo airlines' choice of gateways or hubs. This is a business segment, both local and

international, from which AATT should solicit input on facilities requirements and how Piarco might fit into its service offerings.

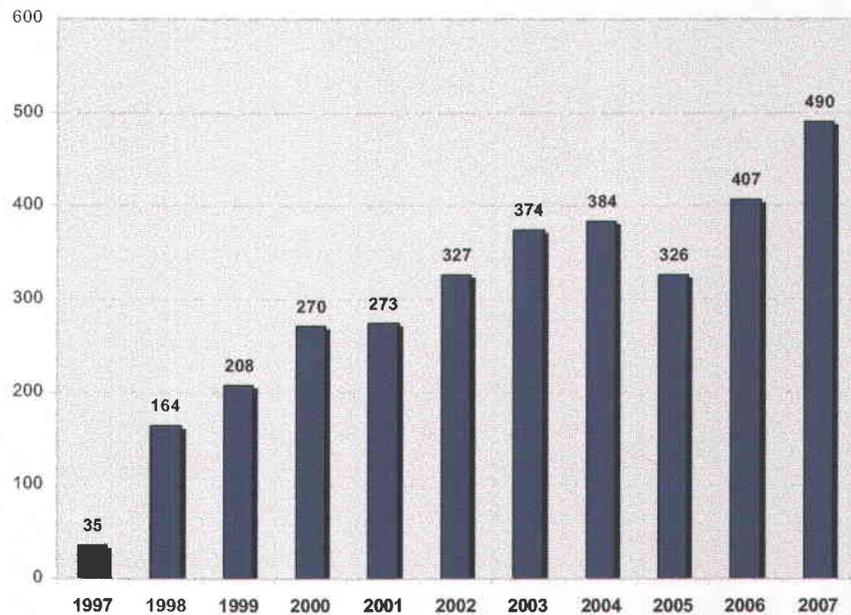
3.3.6 Liege Airport (LGG)

Background and History

LGG is the 12th largest freight airport in Europe in terms of traffic volume. It is located in Belgium, approximately 1 hour's drive time from Brussels, 3 hours from Amsterdam, 4 hours' drive from Paris, and 5 hours from Frankfurt. This location allows it to serve a large portion of Western Europe. LGG has focused its development strategy on air cargo, and attracted the overnight express parcel carrier TNT as a hub operator in 1998. The airport specializes in perishable cargo in particular.

The private company SAB was granted a 50-year concession in 1990 to manage and market the airport. In 1999, SAB entered into a partnership agreement with Aeroports de Paris (ADP); ADP assists in marketing Liege as an alternative cargo airport to the Paris area airports.

Exhibit 3-35: LGG Air Freight Volumes (thousand metric tonnes)



Source: Air Transport Intelligence

In addition to location and lack of congestion, LGG has several characteristics that have helped it attract cargo carriers. It has two long runways that allow it to handle large widebody freighters, and it operates 24 hours per day (unlike many major

European airports closer to city centers. It also offers an impressive array of warehousing and storage facilities, including a large amount of cold storage for perishables. It sits directly along a major European motorway network, and it has a road-rail multimodal transshipment platform.

The airport has an adjacent business estate, Liege Logistics, with many logistics and distribution companies as tenants. PFS Europe (Priority Fulfillment Services Europe), a major distributor of computers and accessories has a distribution center there, as do several major trucking companies. Two logistics training institutes also have centers in the estate. One notable tenant of LGG is Bedek Aviation Group, a subsidiary of Israel Aircraft Industries, which operates an MRO center for several commercial aircraft types.

Success Factors and Relevance to Piarco

LGG been successful in attracting cargo operators and business estate tenants because of its central location, ample space, 24-hour operations and good facilities. In addition, it was wise to specialize in perishables and provide appropriate handling and storage facilities, as this gives it a competitive advantage over many other airports in the region. The government of Wallonia, a region of Belgium, has given the airport significant backing and allowed it to offer reduced airport fees, although lower fees do not seem to have been a major factor in attracting TNT and other airlines. The experience of LGG underscores the importance of offered the right facilities to meet the needs of cargo operators and stand out from competing airports. Piarco can similarly ensure that it maintains a competitive advantage over other airports in the region by offering suitable facilities for specialized cargo such as perishables and live animals.

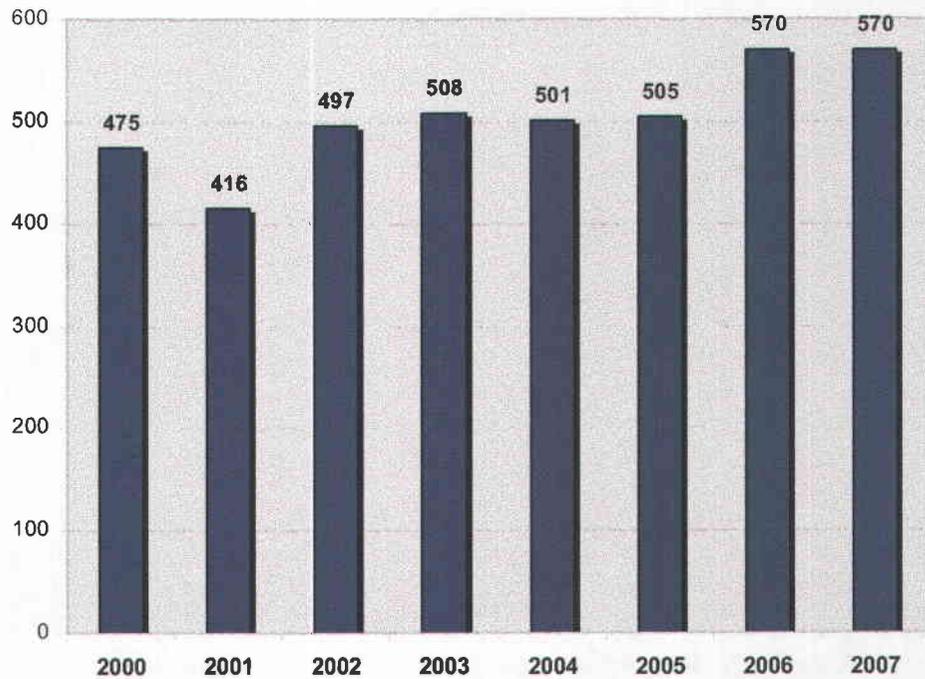
3.3.7 Sharjah International Airport (SHJ)

Background and History

SHJ is located in the Sharjah emirate of the United Arab Emirates, next to Dubai. It is the second-largest airport for air cargo volume in the Middle East after Dubai, and it is one of the world's major locations for sea-air freight. Approximately two-thirds of Sharjah air cargo is transfer and transit traffic, and much of the remaining amount is trucked to or from other parts of the Gulf region or shipped onward by sea. The airport is the Middle East freight hub for both Lufthansa Cargo and MASkargo (Malaysian), and other major freighter operators include Singapore Airlines, Cathay Pacific, Eva Air, Cargolux, UPS, and Trans Mediterranean Airways. SHJ also handles a considerable amount of passenger air service, and it is the hub of Air

Arabia, a low-cost carrier. The airport is also home to the Sharjah International Airport Free Zone (SAIF), a very successful FTZ and business/industrial estate.

Exhibit 3-36: SHJ Air Freight Volumes (Thousand Metric Tonnes)



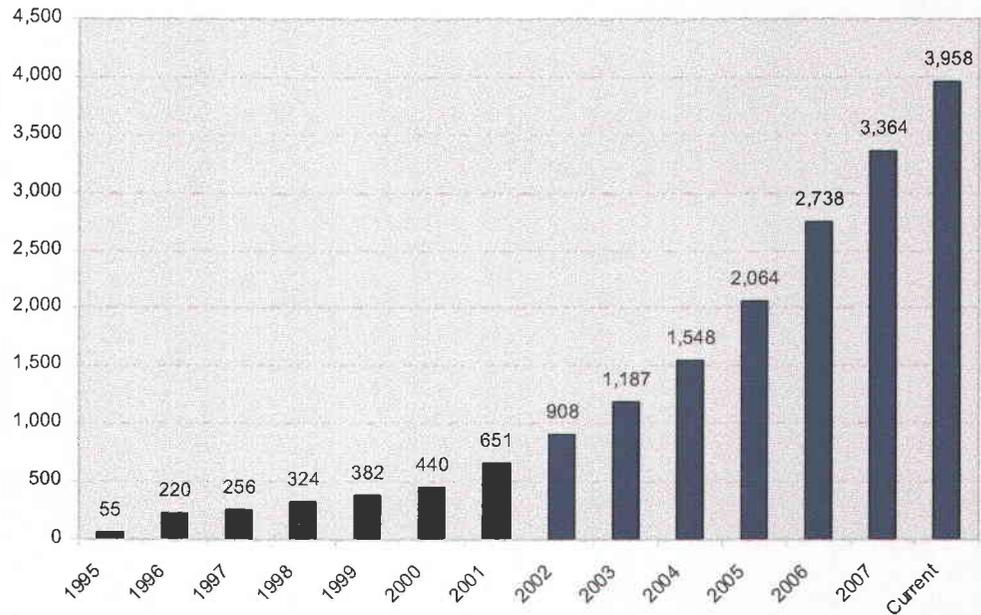
Source: Air Transport Intelligence

SHJ has several major advantages as a cargo hub. It is located between Asia and Europe, and next to Dubai and Abu Dhabi, two of the Middle East's key business capitals. It is connected to a modern multilane highway that links it to the ports of Port Khalid on the Persian Gulf, Khorfakkan on the Indian Ocean, and Dubai and Abu Dhabi. It is 12 kilometers from Port Khalid, enabling sea-air cargo transfers. In terms of infrastructure, it offers uncongested facilities with long runways and ample ramp space parking for up to ten widebody freighters and sixteen narrowbodies. The airport has five separate cargo terminals, 440,000 square feet in total area, with six large cold rooms and three freezer chambers. It has separate areas for ULD storage, dangerous goods, livestock and trucking maintenance.

The Sharjah Airport International Free Zone (SAIF), the world's largest airport FTZ, is located on 10 million square meters of land near the airport. The estate includes many pre-built warehouses with adjacent office space, container parking area and temporary storage capability. Incentives for companies operating in the zone include simplified customs procedures, rapid processing of license applications, exemption from corporate or personal income taxes, no foreign ownership restrictions, repatriation of funds with no currency restriction, and permission to employ 100% expatriate staff. There is also a no-deposit customs policy for cargo in transit between

Sharjah seaports and SAIF, which simplifies sea-air transfers. Since its establishment in 1995, SAIF has attracted almost 4,000 companies as tenants.

Exhibit 3-37: Number of Companies at Sharjah Airport International Free Zone



Source: SAIF

Success Factors and Relevance to Piarco

The success of SHJ as a cargo hub is the result of several factors, including an advantageous location between Europe and Asia. The fact that the United Arab Emirates has long maintained an “open skies” policy on international air service agreements allowed SHJ to establish itself as a connecting point for airlines constrained by aviation bilateral restrictions on routes between Europe and Asia. Other success factors include the airport’s excellent facilities, efficient operations and lack of “red tape”. Combined together, these lead to very short cargo dwell times, which improves the bottom lines of both the cargo carriers and their customers. An additional success factor has been SHJ’s proximity to seaports, which has allowed it to become a major location for sea-air freight. Finally, the presence of the SAIF has strengthened the airport’s position as a cargo hub. Many of these success factors should be replicable by Piarco, including the regional cargo hub strategy and the opportunity to establish a major FTZ.



3.4 CONCLUSIONS AND RECOMMENDATIONS

3.4.1 SWOT Analysis

SH&E conducted a SWOT analysis of each of the commercial opportunities evaluated, summarizing Piarco's Strengths, Weaknesses, Opportunities and Threats in relation to the opportunity.

Exhibit 3-38: SWOT Analysis - Regional Cargo Hub

<p><u>Strengths</u></p> <ul style="list-style-type: none"> ▪ Large local air cargo market ▪ Well-established export markets ▪ Modern, safe, uncongested airfield ▪ Amerijet already has a small regional hub at Piarco ▪ Home of Caribbean Airlines 	<p><u>Weaknesses</u></p> <ul style="list-style-type: none"> ▪ Customs delays, limited schedule ▪ Insufficient warehouse space for major growth in cargo volume ▪ Very limited widebody service ▪ No nonstop Europe service ▪ Relatively high fuel prices due to National Petroleum monopoly
<p><u>Opportunities</u></p> <ul style="list-style-type: none"> ▪ Facilitate expansion of Amerijet operations ▪ Attract additional widebody passenger service ▪ Attract European passenger flights ▪ Attract Europe-South America freighter tech-stop traffic ▪ Develop new, larger cargo facilities ▪ FTZ encompassing cargo facilities 	<p><u>Threats</u></p> <ul style="list-style-type: none"> ▪ Other airports/governments offering incentives to attract Amerijet ▪ Economic downturn may lead to decreased cargo demand ▪ Amerijet could go out of business or be forced to shrink significantly ▪ Changes in freighter fleets could lead airlines to serve more Carib. points nonstop, bypassing Piarco

Source: SH&E analysis

Exhibit 3-39: SWOT Analysis – Third-Party MRO Center

<p><u>Strengths</u></p> <ul style="list-style-type: none"> ▪ Caribbean Airlines has heavy maintenance capabilities and hopes to offer 3rd party MRO service ▪ Location between North and South America, within nonstop range of most narrowbody aircraft ▪ Well-educated, English-speaking workforce ▪ Labor costs much lower than U.S. and Canada ▪ T&T has FAA Category 1 status 	<p><u>Weaknesses</u></p> <ul style="list-style-type: none"> ▪ Current hangar space is insufficient for 3rd party MRO services ▪ Higher labor costs than many Central American locations ▪ MRO center would be less experienced than Central American competitors ▪ Customs delays would affect MRO operations ▪ Location is further from U.S. than Central American competitors
<p><u>Opportunities</u></p> <ul style="list-style-type: none"> ▪ Help establish the first major Caribbean MRO center ▪ Partner with an established global MRO provider ▪ Develop new facilities to host expanded MRO activity ▪ Help the MRO venture obtain GOTT financial support 	<p><u>Threats</u></p> <ul style="list-style-type: none"> ▪ Strong competitive response from established MRO providers ▪ Shrinkage of North American airline fleets could decrease MRO demand ▪ N. American labor union resistance to maintenance outsourcing could reduce demand for 3rd party MRO

Source: SH&E analysis

Exhibit 3-40: SWOT Analysis – Free Trade Zone

<p><u>Strengths</u></p> <ul style="list-style-type: none"> ▪ Strong local export sector ▪ Good road, seaport and communications infrastructure ▪ National policies already in place for designation of FTZs ▪ Availability of trade-related professional and financial services ▪ Piarco already a regional cargo hub ▪ Political stability 	<p><u>Weaknesses</u></p> <ul style="list-style-type: none"> ▪ Customs clearance at Piarco is currently too slow
<p><u>Opportunities</u></p> <ul style="list-style-type: none"> ▪ Consolidate Trinidad's position as a regional business and logistics hub ▪ Support air cargo hub and MRO center with FTZ customs exemptions ▪ Use FTZ status to develop sea-air cargo traffic 	<p><u>Threats</u></p> <ul style="list-style-type: none"> ▪ Possible creation of competing FTZs at airports in nearby Carib. Locations ▪ Collapse in worldwide credit markets could make financing difficult ▪ Possible resistance from GOTT agencies whose cooperation needed

Source: SH&E analysis

Exhibit 3-41: SWOT Analysis – Business Estate

<p><u>Strengths</u></p> <ul style="list-style-type: none"> ▪ Convenient business location along path of metropolitan area commercial development ▪ Solid amount of passenger and cargo service to attract companies 	<p><u>Weaknesses</u></p> <ul style="list-style-type: none"> ▪ Road congestion could make Piarco location inconvenient for those commuting from downtown
<p><u>Opportunities</u></p> <ul style="list-style-type: none"> ▪ Attract companies and government agencies that are heavy users of air transport ▪ Attract tenants of all types that are seeking to avoid the frequent road closer to Port of Spain ▪ Support aviation-related and logistics businesses with nearby office space ▪ Additional concessions business from park tenants 	<p><u>Threats</u></p> <ul style="list-style-type: none"> ▪ Planned development of several large government-sponsored business parks in nearby locations ▪ Availability of commercially-zoned off-airport land very close to airport ▪ Economic downturn may reduce demand for commercial real estate and make financing difficult

Source: SH&E analysis

Exhibit 3-42: SWOT Analysis – Retail Estate

<p><u>Strengths</u></p> <ul style="list-style-type: none"> ▪ Convenient business location along path of metropolitan area commercial development ▪ Presence of existing shopping centers nearby (also a threat) 	<p><u>Weaknesses</u></p> <ul style="list-style-type: none"> ▪ No major competitive advantages over other nearby locations ▪ Danger of diverting business from in-terminal airport concessions
<p><u>Opportunities</u></p> <ul style="list-style-type: none"> ▪ Attract retailers that can attract both airport users and general population 	<p><u>Threats</u></p> <ul style="list-style-type: none"> ▪ Presence of existing shopping centers nearby (also a strength) ▪ Economic downturn could severely decrease demand for new retail locations

Source: SH&E analysis

3.4.2 Ranking of Opportunities

SH&E has ranked the five opportunities evaluated in terms of potential economic return to AATT, and in terms of the investment required and level of risk. Exhibit 3-43 shows the opportunities ranked by economic likely return to AATT.

Exhibit 3-43: Opportunities Ranked by Potential for Economic Return to AATT

1 = greatest potential, 5 = least potential

Rank	Opportunity	Direct Revenue	Indirect Revenue
1	Regional Cargo Hub	<ul style="list-style-type: none"> ◆ Increased landing, fuel, cargo handling fees ◆ Additional rental income 	<ul style="list-style-type: none"> ◆ Contributes to business park, FTZ, MRO center ◆ Increased local employment
2	MRO Center	<ul style="list-style-type: none"> ◆ Additional rental income 	<ul style="list-style-type: none"> ◆ Increased landing, fuel and cargo handling fees ◆ Increased local employment
3	Free Trade Zone/Business Estate	<ul style="list-style-type: none"> ◆ Additional rental income 	<ul style="list-style-type: none"> ◆ Supports cargo hub, MRO ◆ Increased local employment ◆ Small stimulation of passenger and cargo traffic
4	Retail Estate	<ul style="list-style-type: none"> ◆ Additional rental income 	<ul style="list-style-type: none"> ◆ Increased local employment

Source: SH&E analysis

Exhibit 3-44 shows the commercial opportunities ranked by the level of investment required by AATT and other government agencies. This excludes investment that may be required by the private concession operators that might operate the ventures. It also excludes the large amount of investment that could be required on the part of Caribbean Airlines and partners for a competitive third-party MRO facility.

Exhibit 3-44: Opportunities Ranked by Investment Requirement

1 = largest investment, 5 = least investment

Rank	Opportunity	Scope of Investment
1	Free Trade Zone/Business Estate	<ul style="list-style-type: none"> ◆ Extensive building design and construction ◆ Construction of access roads and security checkpoints ◆ Utilities, communications infrastructure ◆ New customs infrastructure and equipment ◆ Government investment in training and other incentives
2	MRO Center	<ul style="list-style-type: none"> ◆ New hangars and office space ◆ Upgrades in utilities and communications infrastructure ◆ Potential government investment of launch aid
3	Regional Cargo Hub	<ul style="list-style-type: none"> ◆ New warehouse and sorting facilities ◆ Improvements in customs facilities and equipment
4	Retail Estate	<ul style="list-style-type: none"> ◆ Construction of buildings and parking

Source: SH&E analysis

SH&E believes that strengthening Piarco's position as a regional cargo hub is the most attractive financial opportunity for AATT, with less government investment required than all but one of the other initiatives. With a medium-size investment in new facilities and the upgrade of customs clearance capabilities, AATT has a very good chance of fostering continued growth of the cargo hub. The cargo hub will generate significant airport revenue from rentals, landing fees, and fuel sales, and it would also strengthen complementary initiatives such as the FTZ and business estate. Moreover, the growth in cargo traffic could help Piarco attract new passenger flights that would benefit from demand for belly space cargo capacity.

SH&E also considers the establishment of a third-party MRO center at Piarco to be a very attractive opportunity. Trinidad has many advantages as a location for outsourced commercial aircraft maintenance, and Caribbean Airlines' demonstrated ability to perform heavy maintenance on a cost-competitive basis should allow it to win business from North American airlines. A lack of competitive MRO providers in the Caribbean should allow it to gain a large share of the region's MRO services market. While AATT is not likely to be a major investor in the MRO venture, it has an important supporting role to play by offering suitable facilities and ensuring that logistics capabilities support its efficient operation. In return, AATT stands to gain increased sizeable income as well as slightly increased landing fees and fuel sales. Moreover, an MRO would be an important contributor to the local economy.

The revenue potential of an airport FTZ depends largely on its size and scope. If the FTZ encompasses air cargo facilities and the MRO center but does not include space for offices and manufacturing, its impact will be limited to increased air cargo activity and efficiency in MRO work. If the FTZ includes office and manufacturing facilities, it could generate a large amount of revenue for the airport or the concessionaire that builds and operates those facilities. Of course, the larger the size and scope of the FTZ, the more investment will be required. In this case, AATT could avoid making all of this investment itself by awarding a concession for the FTZ to a private company that specializes in the design and operation of FTZs and logistics parks. To make a large FTZ a reality, AATT and its private sector partners will have to work closely with GOTT to ensure that all of the services, resources and privileges that make an FTZ attractive are implemented, and that necessary off-airport infrastructure is built. Because of the current worldwide economic downturn, it may be difficult to attract developers and financing for a major FTZ, but AATT can begin the complex preliminary planning now. After obtaining an FTZ designation that encompasses cargo and MRO activities, it can expand the FTZ facilities and activities as circumstances permit.

Both a business estate and a retail estate at Piarco have the potential to generate significant rental income, and they are less complex undertakings than a large FTZ. However, because a retail estate of a business estate lacking FTZ privileges will have to compete against other nearby business parks, they are still somewhat risky ventures. Because of declining oil prices and the prospect of a global recession, it is quite likely that Trinidad's commercial real estate market will see a downturn, and it may be difficult to secure financing for the new developments. Therefore, while SH&E considers airport business and retail estates attractive long-term opportunities, it recommends that AATT proceed with caution and await the right economic environment before making any major investment in these two initiatives.

4

TASK 3 – INFRASTRUCTURE REQUIREMENTS FOR COMMERCIAL DEVELOPMENT

4.1 INTRODUCTION

In the Task 2 report previously submitted to AATT, SH&E assessed the market potential for a variety of airport commercialization opportunities at Piarco International Airport (“Piarco” or “the Airport”) and evaluated the attractiveness and feasibility of each one. SH&E found that the strengthening of Piarco’s position as a regional cargo hub represents the most attractive commercialization opportunity for the airport and that a medium-sized investment in new facilities offers a strong chance of fostering continued growth in cargo traffic and thus generating significant, new airport revenues. SH&E also determined that the establishment of a third-party MRO center at Piarco is an attractive opportunity, given Trinidad’s advantageous location for outsourced aircraft maintenance and Caribbean Airlines’ demonstrated ability to perform heavy maintenance on a cost-competitive basis. Based on these assessments, AATT has chosen to further evaluate both opportunities, and in Task 3, SH&E examines the infrastructure development required to support these two initiatives and estimates their size, scope and costs.

In Section 4.2 of this Task 3 report, SH&E analyzes previous aviation forecasts developed for AATT by other consultants, reviews current air service and traffic, and lays out new long-term forecasts of aviation activity and fuel flowage at Piarco under baseline and alternative growth scenarios. Section 4.3 details the new cargo facilities needed to support the volume of air cargo and freighter operations projected in the long-term aviation forecast. In Section 4.4, SH&E provides an estimate of the volume and dollar value of aircraft MRO services required for the region’s airline fleet over the next 20 years, and projects the requirements for aircraft maintenance hangars needed at Piarco to handle a realistic portion of this MRO demand. In both Section 4.3 and Section 4.4, in addition to specifying the size, configuration and phasing of the new infrastructure, SH&E also provides estimates of the construction costs and total investment required, as well as conceptual drawings of the proposed facilities.

For this portion of the project, SH&E has drawn on a broad variety of resources. We have conducted an extensive analysis using proprietary and public databases, industry publications, and information obtained through interviews with AATT staff and representatives of airlines and other companies currently operating at Piarco.

4.2 AVIATION FORECASTS

4.2.1 Introduction

This chapter reviews previous forecasts of Piarco aviation activity, analyzes current traffic and service levels, and presents SH&E's long-term forecasts of aviation activity and fuel flowage. The review of previous forecasts examines the forecasts produced by two other aviation consulting firms for AATT in 1992 and 2000, and provides a brief examination of their methodologies and assumptions. The analysis of current traffic and service levels at Piarco covers passengers, cargo, and aircraft operations and looks at recent trends and their potential impact on future growth. SH&E's new long-term aviation forecast, which incorporates the analysis of current activity and recent trends, projects passenger, cargo and operations volumes and composition over the next twenty years, from 2010 to 2030. The new aviation forecast is the basis for both the fuel flowage forecast and the recommendations regarding cargo infrastructure presented in Section 4.3.

This study develops a market analysis and forecast in a manner consistent with accepted industry practices. SH&E believes that the approaches and assumptions used in this analysis are reasonable, but certain assumptions regarding future trends and forecasts may not materialize, and therefore could affect actual development and market demand. For this review, SH&E relied on publicly available data and information, including economic and aviation statistics and forecasts, as well as data provided by AATT, air traffic forecasts from IATA and Airbus, and economic forecasts prepared by the Economist Intelligence Unit (EIU). Although we believe these sources are reliable, our opinion could vary materially should some of the information provided prove to be inaccurate or incomplete. The analysis and opinions presented in this report reflect SH&E's reasoned views and judgment as of October 2010 based on the information available to us at the time this report was prepared.

4.2.2 Data Sources

In its analysis of current Piarco air traffic and service and its forecast of future activity, SH&E used a variety of information sources. Principal data sources include:

Airports Authority of Trinidad and Tobago (AATT)

The Airports Authority of Trinidad and Tobago (AATT) provided SH&E with extensive data on historical and current aviation activity at Piarco. This data was a key input into SH&E's analysis of current traffic and service and its forecasts of future activity.

OAG Schedule Files

SH&E maintains a database of historical and current airline schedules as reported by airlines to the Official Airline Guide (OAG); this data was used in its analysis of current and historical air service at Piarco. The majority of domestic and international passenger carriers at Piarco report to the OAG. However, the OAG data does not include comprehensive schedules of cargo flights and does not include charter or air taxi flights. SH&E has used data provided by AATT and the airlines themselves to estimate flights excluded from OAG.

International Air Transport Association (IATA)

The International Air Transport Association (IATA), the global trade organization representing the world's airlines, produces detailed five-year forecasts for both passenger and freight markets at the country, region and global level, derived from their annual survey of forecasters from over 60 major airlines and national civil aviation and airport authorities. IATA's 2009-2013 growth projections were used as an input into the SH&E passenger forecasting model.

Airbus Global Market Forecast

The aircraft manufacturer Airbus and its main competitor, Boeing, both produce forecasts of long-term air traffic growth on an annual basis. SH&E used the Airbus 2009-2028 Global Market Forecast, which includes growth rates for major intra- and inter-regional markets, as an input into its forecast of Piarco passenger growth.

Economist Intelligence Unit (EIU)

The Economist Intelligence Unit (EIU) is one of the world's leading economic information and forecasting firms, and their independent analysis is widely respected and relied upon for comprehensive and objective economic forecasts. SH&E has used their long-term GDP forecasts for Trinidad and Tobago as an input into the forecasting model for cargo traffic at Piarco.

4.2.3 Previous Aviation Forecasts

SH&E reviewed two previous aviation forecasts developed for Piarco by other consultancies as part of land use or airport commercialization studies. The two forecasts are contained in the following reports:

- "Feasibility Analysis and Retail Plan for the New Passenger Terminal Building," LEA-TRA Airport Consultants, 1992
- "Land Use Feasibility Update," Birk Hillman Consultants, 2000

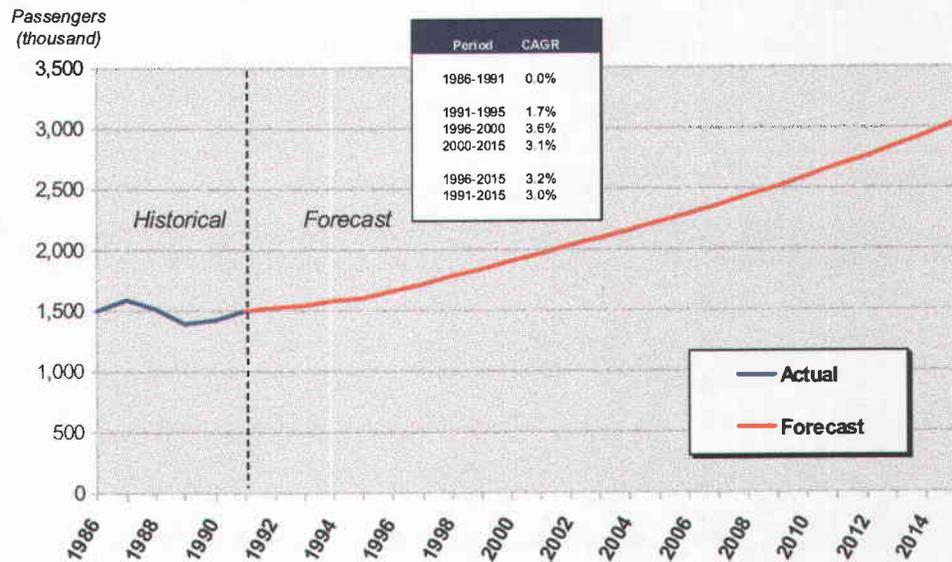
LEA-TRA Aviation Forecast

The LEA-TRA Airport Consultants forecast, delivered to AATT in 1992, was part of a study evaluating the feasibility of a new passenger terminal (subsequently built) on the north side of the airport. In order to evaluate future demand for the new facility, LEA-TRA developed twenty-year forecasts of passengers and cargo. These forecasts were based on a variety of inputs, including historical traffic growth, projected population and GDP growth, air traffic elasticity, and projected number of hotel rooms in both Trinidad and Tobago.

In its passenger forecast, shown below in Exhibit 4-1, LEA-TRA divided passengers into different categories based on resident/non-resident status and purpose of trip, and used different variables or combinations of variables to assign a growth rate to each category. For holiday visitors, forecast growth was based on projected growth in the number of Trinidad and Tobago hotel rooms; half of inbound tourists were assumed to fly to Piarco (and the other half to Tobago's Crown Point airport). For both Trinidad residents traveling abroad and foreign residents visiting friends and relatives in Trinidad, traffic growth was modeled as a function of population and GDP growth, with demand elasticity with respect to these two variables set at 1.5.⁶⁸ For business visitors and other visitors, air traffic growth was assumed to be a function of GDP growth and an income elasticity of 1.5. In the case of domestic passengers, holiday visitors were forecast as a function of growth in hotel rooms, whereas resident passengers were forecast as a function of GDP growth and an income elasticity of 1.5.

⁶⁸ This means that a 1% increase in GDP corresponded to a 1.5% increase in passengers.

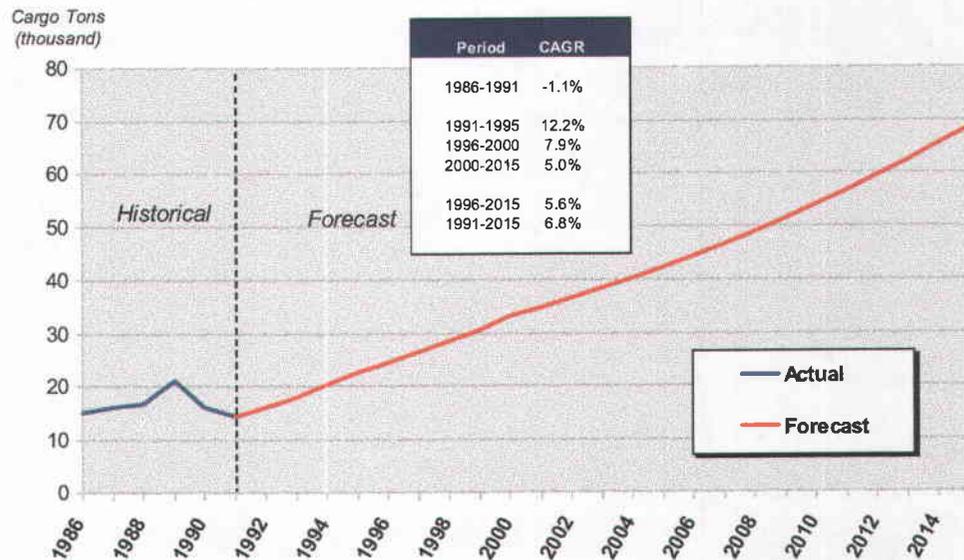
Exhibit 4-1: LEA-TRA Passenger Forecast for Piarco, 1992



Source: "Studies for the Redevelopment of Piarco International Airport," LEA-TRA Airport Consultants, 1992

The LEA-TRA forecast of Piarco cargo tonnage, shown below in Exhibit 4-2, was based on historical growth rates and the consultancy's own judgment on the outlook for future growth. Average annual growth is projected at 12.2% for 1991-1995, 7.9% for 1996-2000, and 5% thereafter.

Exhibit 4-2: LEA-TRA Cargo Forecast for Piarco, 1992



Source: "Studies for the Redevelopment of Piarco International Airport", LEA-TRA Airport Consultants, 1992

The LEA-TRA forecast model converts forecast passenger and cargo volumes into aircraft operations based on historical traffic composition by aircraft type, historical

passenger and cargo load factors, and the consultancy's own judgment regarding likely changes in service patterns.

Exhibit 4-3 below summarizes the LEA-TRA forecast, including passengers, cargo tonnage, and aircraft operations.

Exhibit 4-3: Summary of LEA-TRA Forecast

	Actual	Forecast					CAGR					
	1991	1995	2000	2005	2010	2015	1991-1995	1995-2000	2000-2005	2005-2010	2010-2015	1995-2015
Passengers	1,498	1,604	1,911	2,225	2,596	3,039	1.7%	3.6%	3.1%	3.1%	3.2%	3.2%
International	995	1,098	1,287	1,493	1,733	2,017	2.5%	3.2%	3.0%	3.0%	3.1%	3.1%
Domestic	389	426	544	652	783	942	2.3%	5.0%	3.7%	3.7%	3.8%	4.0%
Transit	114	80	80	80	80	80	-8.5%	0.0%	0.0%	0.0%	0.0%	0.0%
Cargo Tons	14,309	22,700	33,200	42,300	53,900	68,700	12.2%	7.9%	5.0%	5.0%	5.0%	5.7%
Aircraft Operations	40,000	46,400	52,740	59,960	68,210	77,670	3.8%	2.6%	2.6%	2.6%	2.6%	2.6%
Air Carrier - International	19,500	22,400	25,950	30,040	34,780	40,290	3.5%	3.0%	3.0%	3.0%	3.0%	3.0%
Air Carrier - Domestic	3,000	5,500	6,370	7,380	8,550	9,910	16.4%	3.0%	3.0%	3.0%	3.0%	3.0%
Other	17,500	18,500	20,420	22,540	24,880	27,470	1.4%	2.0%	2.0%	2.0%	2.0%	2.0%

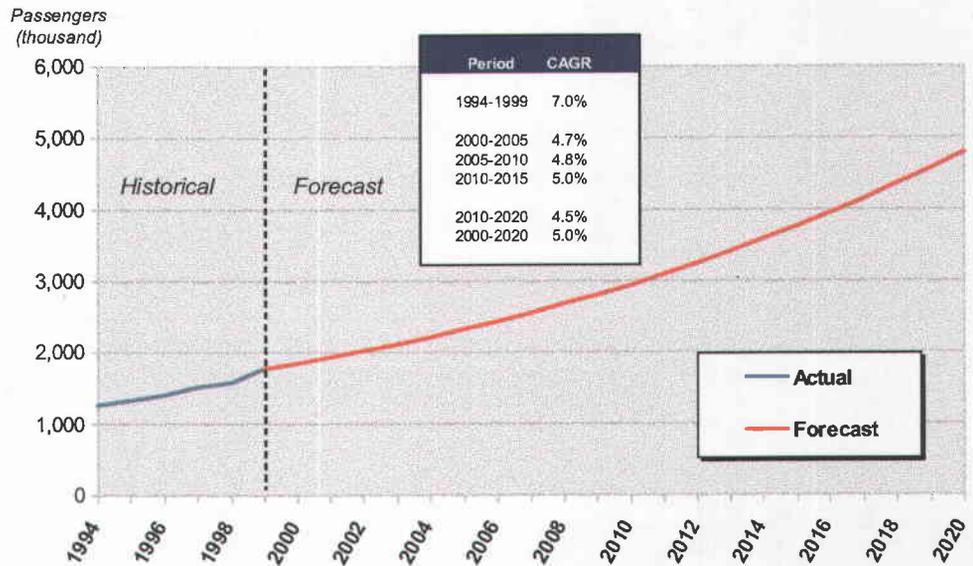
Note: "Air Carrier" includes both passenger and cargo carriers

Source: "Studies for the Redevelopment of Piarco International Airport," LEA-TRA Airport Consultants, 1992

Birk Hillman Aviation Forecast

The Birk Hillman forecast, which was produced as part of an update of land use plans for Piarco, covers passengers, cargo tonnage, and aircraft operations for 2000-2020. The study considers several different long-term growth rate projections based on Piarco's average growth over different historical periods, but the growth rates selected for planning purposes were based on IATA forecasts of Trinidad and Tobago air traffic over the 1996-2011 period, which projected 5.6% annual growth of international passengers and 4.5% annual growth of domestic passengers. Exhibit 4-4 below shows the Birk Hillman forecast of Piarco passengers.

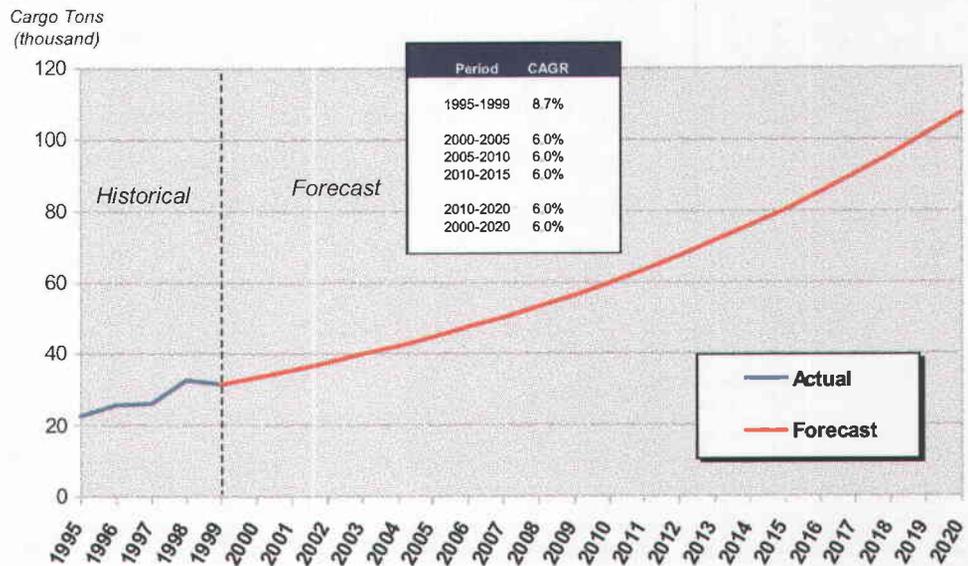
Exhibit 4-4: Birk Hillman Forecast of Total Piarco Passengers



Source: Birk Hillman Consultants, AATT

Based on growth in Piarco cargo tonnage in the years preceding the forecast (8.7% average annual growth in 1994-1999) and an Airports Council International forecast of 4% annual growth for the Caribbean/Latin America Region, Birk Hillman assumed an average annual growth rate of 6% for its Piarco cargo forecast. Exhibit 4-5 below shows the resulting forecast of total Piarco cargo tonnage.

Exhibit 4-5: Birk Hillman Forecast of Piarco Cargo Tonnage



Source: Birk Hillman Consultants, AATT

By applying assumptions regarding the number of seats and passengers per passenger flight, cargo tonnage per cargo flight, and the portion of cargo carried in freighter aircraft, Birk Hillman converted its projections of passengers and cargo tonnage into passenger and cargo ATMs (air transport movements). It also forecast general aviation activity based on historical growth rates and the assumption of a gradual recovery following years of decline.

Exhibit 4-6 below summarizes the Birk Hillman forecast, with passengers, tonnage, and aircraft operations by category.

Exhibit 4-6: Summary of Birk Hillman Forecast

	Actual	Forecast			CAGR			
	1999	2005	2010	2020	1999-2005	2005-2010	2010-2020	1999-2020
Passenger Enplanements	887,106	1,180,340	1,497,501	2,410,387	4.9%	4.0%	8.3%	4.9%
Domestic	195,494	271,478	344,425	554,389	5.6%	4.0%	8.3%	5.1%
International	691,612	908,862	1,153,075	1,855,998	4.7%	4.0%	8.3%	4.8%
Cargo Tonnage	31,652	44,899	60,065	107,602	6.0%	5.0%	10.2%	6.0%
Aircraft Operations	45,774	48,526	53,966	73,544	1.0%	1.8%	5.3%	2.3%
Air Carrier	39,939	42,306	47,069	65,058	1.0%	1.8%	5.5%	2.4%
Cargo	4,530	5,102	5,632	6,866	2.0%	1.7%	3.4%	2.0%
General Aviation	1,305	1,118	1,265	1,620	-2.5%	2.1%	4.2%	1.0%

Source: Birk Hillman Consultants, AATT

4.2.4 Current Piarco Traffic and Service

Piarco is one of the busiest airports in the Caribbean, with more than 2.5 million passengers in 2009. The airport has a diversified traffic base, with international passenger flights, domestic passenger flights, cargo flights and general aviation each making up a sizeable portion of the total. As the home of Caribbean Airlines (one of the region's top carriers) and an important transit point for regional traffic flows, Piarco is well-positioned for growth in the coming years. After several years of sharp increases and decreases due to economic factors and instability in the local airline industry, recent signs point to renewed growth in both passengers and cargo volumes, with international passengers up 9.9% year-on-year in the first two months of 2010 and cargo tonnage up 45.8%. However, service levels have not yet increased in line with the recovery in passenger volumes.

Passengers

As shown in Exhibit 4-7 below, Piarco passenger traffic is primarily international, with international origin and destination (O&D) passengers and transit passengers (who are virtually all arriving and departing on international flights) accounting for 75% of all passengers. The domestic portion consists entirely of traffic between Piarco and the Crown Point airport on the island of Tobago.

Passenger Service

Nine airlines offer scheduled passenger service to nineteen international destinations and one domestic destination from Piarco, with 137 weekly domestic departures and 225 weekly international departures. Exhibit 4-10 below shows the routes currently served, as well as weekly frequency and seats.

Exhibit 4-10 Scheduled Passenger Service at Piarco, September 2010

Carrier	Code	Market	Airport	Via	Weekly Depts	Weekly Seats
Domestic						
Caribbean Airlines	BW	Tobago	TAB		137	6,850
Domestic subtotal					137	6,850
International						
American Airlines	AA	Miami	MIA		14	2,793
		San Juan	SJU		3	192
British Airways	BA	London	LGW	UVF	5	1,335
Caribbean Airlines	BW	Caracas	CCS		10	500
		Barbados	BGI		20	1,000
		Kingston	KIN	BGI-ANU	4	616
		Kingston	KIN	BGI-SXM	3	462
		New York	JFK		20	3,080
		Georgetown	GEO		28	4,312
		Fort Lauderdale	FLL		7	1,078
		Miami	MIA		7	1,078
		Toronto	YYZ		14	2,156
		Paramaribo	PBM		5	770
Copa Airlines	CM	Panama City	PTY		7	748
Continental	CO	Houston	IAH		7	1,085
		New York	EWR		1	155
LIAT	LI	Antigua	ANU	SLU	7	378
		Antigua	ANU	GND-SVD	7	378
		Saint Vincent	SVD	GND	7	378
		Barbados	BGI	GND	4	216
		San Juan	SJU	SVD-SLU	7	378
		Grenada	GND		7	378
		Curacao	CUR		3	162
		Barbados	BGI		14	756
Surinam Airways	PY	Curacao	CUR		3	345
		Paramaribo	PBM		2	230
Conviasa	V0	Porlamar	PMV		5	235
Aerpostal	VH	Caracas	CCS		4	520
International subtotal					225	25,714
Total					362	32,564

Source: OAG

Piarco ranks fifth among Caribbean airports in terms of both scheduled seats and departures, as shown below in Exhibit 4-11. In terms of year-on-year growth in service and capacity, it currently lags most of the region's other airports; however,

this is partially due to the fact that many of the region's other airports experienced greater declines in 2008.

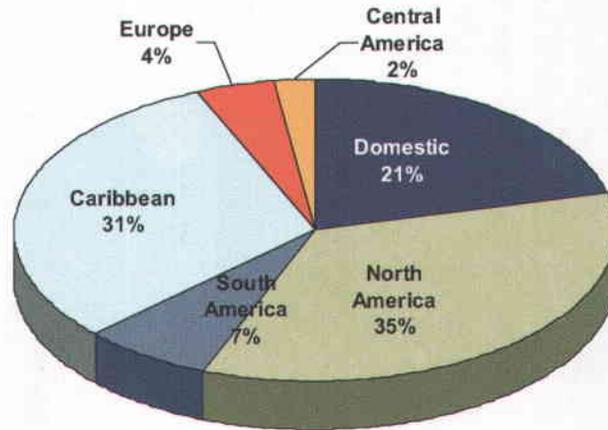
Exhibit 4-11: Scheduled Seats and Departures at Caribbean Airports, Sep 2010

Rank	Airport	Country	Code	Weekly Seats	YoY Change	Weekly Departures	YoY Change
1	San Juan	Puerto Rico	SJU	75,317	-9.6%	925	-8.2%
2	Santo Domingo	Dominican Republic	SDQ	34,731	-4.0%	246	-5.7%
3	Port-of-Spain	Trinidad & Tobago	POS	32,564	0.0%	362	-3.5%
4	Havana	Cuba	HAV	29,551	-4.4%	215	2.9%
5	Nassau	Bahamas	NAS	29,085	3.0%	454	-3.8%
6	Montego Bay	Jamaica	MBJ	24,483	11.3%	161	12.6%
7	Barbados	Barbados	BGI	24,237	16.1%	221	7.8%
8	Curacao	Netherlands Antilles	CUR	23,148	-12.3%	300	-15.3%
9	Aruba	Aruba	AUA	22,199	6.7%	227	-3.8%
10	Punta Cana	Dominican Republic	PUJ	20,304	36.4%	113	28.4%
11	Kingston	Jamaica	KIN	19,907	15.7%	133	15.7%
12	Pointe-a-Pitre	Guadeloupe	PTP	19,555	-6.4%	214	-8.2%
13	Fort de France	Martinique	DFD	18,391	-1.7%	164	-5.2%
14	Saint Maarten	Netherlands Antilles	SXM	18,227	5.7%	467	43.7%
15	Antigua	Antigua/Barbuda	ANU	15,209	5.8%	240	10.1%
16	Port-au-Prince	Haiti	PAP	14,025	25.9%	108	45.9%
17	Bermuda	Bermuda	BDA	11,657	17.7%	75	13.6%
18	Santiago	Dominican Republic	STI	10,090	-4.5%	71	-1.4%
19	Grand Cayman	Cayman Islands	GCM	9,704	-9.3%	100	-9.1%
20	Saint Thomas	US Virgin Islands	STT	9,659	3.7%	302	11.9%

Source: OAG

As shown in the exhibit below, 79% of Piarco scheduled seats are international and 21% are in the Piarco-Tobago domestic market. Of international capacity, the largest portion is to North America, followed by South America (mainly Guyana, Suriname and Venezuela) and other Caribbean destinations. London Gatwick, which is currently served by British Airways with an intermediate stop in St. Lucia, accounts for 4% of seats, and COPA's Panama City flights account for 2%.

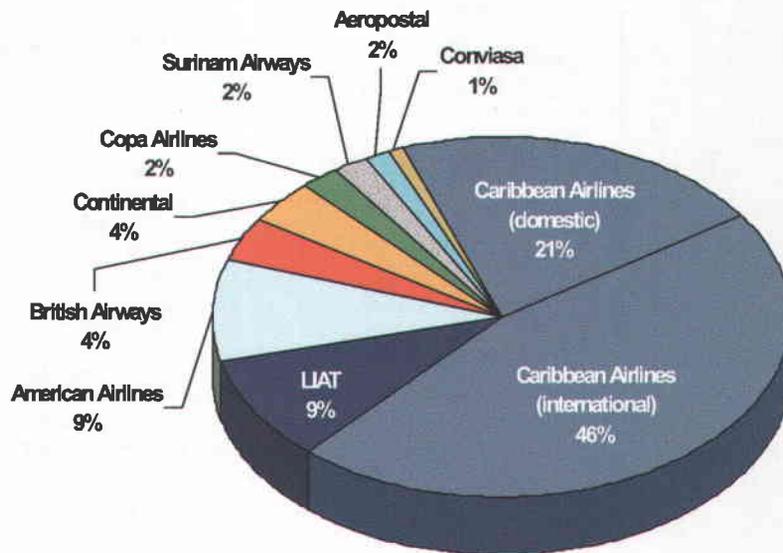
Exhibit 4-12: Piarco Scheduled Seats by Region, Sep 2010



Source: OAG

Caribbean Airlines is by far the dominant airline at Piarco, with a 67% share of total seats (and a 59% share of international seats). It is the only airline serving the Piarco-Tobago route. Of the foreign carriers offering the balance of service and capacity, the next most important carriers are Antigua-based LIAT and American Airlines.

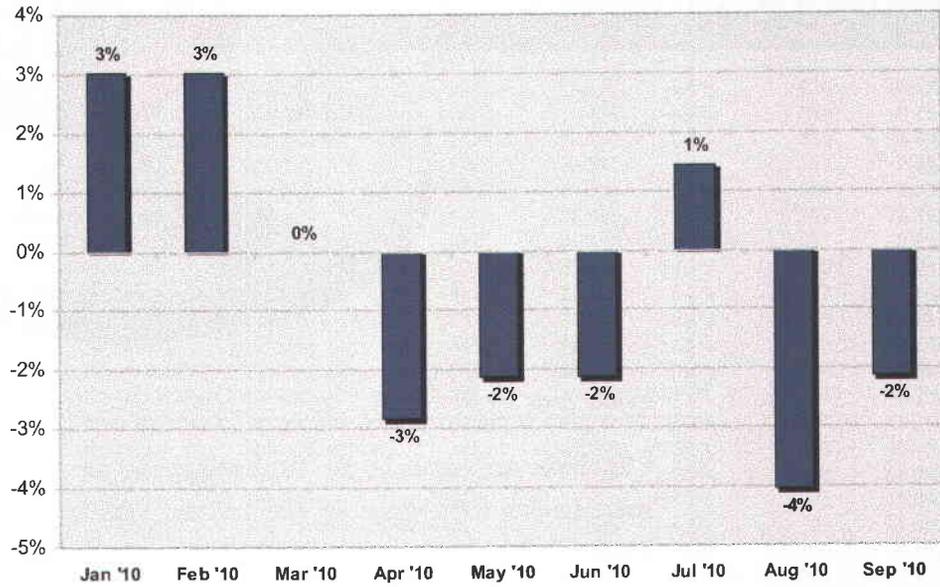
Exhibit 4-13: Piarco Scheduled Seats by Carrier, Sep 2010



Source: OAG

After increasing capacity on the Piarco-Tobago route in 2009, Caribbean Airlines reduced domestic seats slightly in 2010, as seen in Exhibit 4-14 below. In the domestic market, the change in frequency generally mirrors the change in seats.

Exhibit 4-14: Year-on-Year Change in Piarco Domestic Scheduled Seats, January-September 2010



Source: OAG

After increasing both international frequency and international seats in the first half of 2009, airlines reduced them during the second half of 2009 and the first half of 2010. However, there was a slight increase in international service and capacity in the third quarter of 2010.

Exhibit 4-15: Year-on-Year Change in Piarco International Seats, January-September 2010



Source: OAG

The major changes in international passenger service in recent months include the following:

- American reduced its summer 2010 San Juan-Piarco frequency and seats by two weekly frequencies and 128 weekly seats.
- Delta Air Lines, which previously served Piarco from Atlanta and New York, appears to have exited both of these markets as of June 2010
- The Venezuelan carrier Aeropostal, which dropped Caracas-Piarco service in the beginning of 2009, re-entered this market with four weekly frequencies in May 2010.
- After expanding its New York and Toronto services in 2009, Caribbean Airlines further increased weekly departures to these two destinations by 10 weekly frequencies and 3 weekly frequencies, respectively, as of July 2010.
- British Airways increased its London service to five weekly flights (from three) in 2010
- COPA Airlines, which launched Panama-Piarco service with four weekly frequencies in 2008 and then increased to six weekly in 2009, expanded to daily service in March 2010.

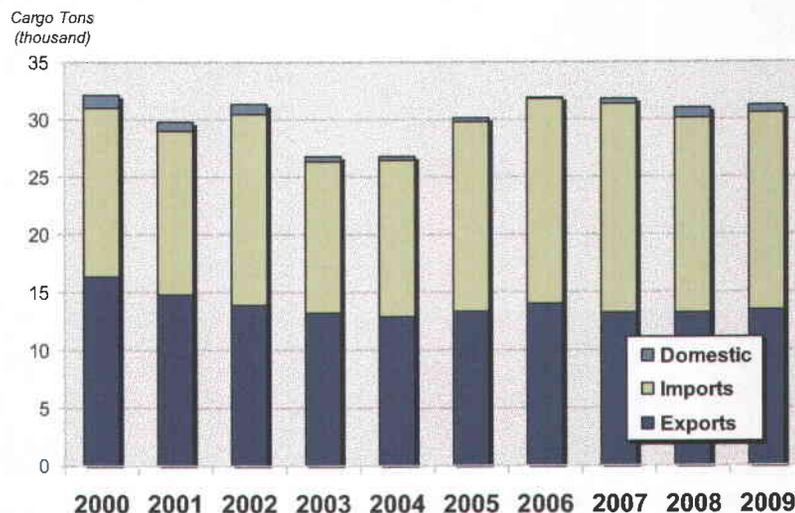
One potentially important recent change in the local airline industry is that Caribbean Airlines acquired Air Jamaica in May of 2010. While it is too early to determine what effect this will have on the route networks of the two airlines, it is likely that service and capacity between Piarco and Jamaica will increase as Caribbean Airlines begins to feed passengers into Air Jamaica flights from Kingston.

Cargo

The Trinidad and Tobago economy supports a large volume of air cargo relative to the country’s population; Piarco is one of the main cargo airports in the southern Caribbean and a regional hub for U.S. cargo carrier Amerijet. Nevertheless, aside from a temporary drop in 2003-2004 and a quick recovery in 2005, growth in Piarco air cargo has been more or less flat, with total tonnage of 31,176 in 2009, 0.5% percent lower than the 2002 level. This does not take into account, however, a recent surge in cargo volume as the country’s international trade began to recover in 2010 and Amerijet increased its service; as previously noted, Piarco’s cargo tonnage grew by almost 46% in the first two months of 2010.

Exhibit 4-16 below shows historical Piarco air cargo tonnage broken down by imports, exports, and domestic cargo; transit cargo, which represents a significant portion of the cargo carried on certain Amerijet flights, is not included in these figures because it is neither reported by the airlines nor tracked by the airport. As this exhibit indicates, inbound cargo accounts for more than half of international tonnage and has grown over the last decade, whereas outbound cargo tonnage has declined.

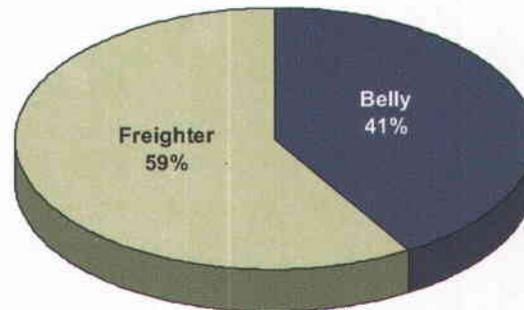
Exhibit 4-16: Piarco Air Cargo Tonnage, 2000-2009



Source: AATT

As shown in Exhibit 4-17 below, more than half of the total air cargo tonnage at Piarco is carried on freighter aircraft.

Exhibit 4-17: Piarco Air Cargo Tonnage, Belly versus Freighter, 2009



Source: AATT, SH&E Analysis

Section 3.2 of the Task 2 report for this project contains a more detailed analysis of the Piarco cargo market, including the types of commodities shipped by air and a breakdown of Trinidad and Tobago's foreign trade by partner country.

Cargo Service

Six cargo airlines operate freighter flights to fourteen different destinations in North America, South America and the Caribbean from Piarco. Almost all of the routes are multi-stop routes where cargo, being shipped to and from multiple origin-destination pairs, is consolidated or offloaded at different points along the route.

Exhibit 4-18 lists the scheduled freighter routes served at Piarco; in addition to these routes, carriers occasionally operate cargo charter flights to other points; however, the flights shown account for the vast majority of both flights and cargo volume.

Exhibit 4-18: Piarco Cargo Schedule, April 2010

Marketing Carrier	Route	Aircraft	Weekly Frequency	Operator
Amerijet	MIA-POS-MIA	767	4	Amerijet
	MIA-POS-SDQ-MIA	767	1	
	MIA-POS-STI-MIA	767	1	
	POS-BGI-GND-POS	727	1	
	POS-BGI-POS	727	1	
	POS-BGI-UVF-SVD-POS	727	1	
	POS-BLA-GEO-PBM-POS	727	1	
	POS-FDF-BGI-PMV-POS	727	1	
	POS-GEO-POS	727	1	
	POS-UVF-GND-POS	727	1	
Caribbean Airlines	MIA-POS-BGI-MIA	767	2	ABX
DHL Express	CCS-POS-BGI	727	6	Vensecar
	BGI-POS-CCS	727	6	Vensecar
Fedex	POS-BQN-POS	ATR42	5	Mountain Air Cargo
Laparkan	MIA-POS-GEO-PBM-MIA	767	2	ABX
UPS	SJU-BGI-POS-UVF-SJU	B1900	5	Amerflight
Total			39	

Note: April 2010 is the latest data received from the airport.

Source: AATT, OAG

As the above exhibit shows, Amerijet is the dominant cargo airline at Piarco, with the largest number of flights and the largest share of capacity. In Section 3.2 of the Task 2 report for this project, SH&E provides more detailed information on Piarco's role as a regional hub for Amerijet. Since that report was submitted, Amerijet has further expanded its Piarco freighter route network to include Santo Domingo and Santiago in the Dominican Republic, as well as Paramaribo, Suriname. According to the airline's local manager in Trinidad, the airline is also considering using Piarco as a transit point for U.S.-Brazil cargo flights, assuming that a Trinidad and Tobago-based subsidiary of Amerijet can make use of Trinidad-Brazil traffic rights.

Aircraft Operations

Piarco's aircraft operations, counted as Air Transport Movements (ATMs)⁶⁹, are tracked in the following categories:

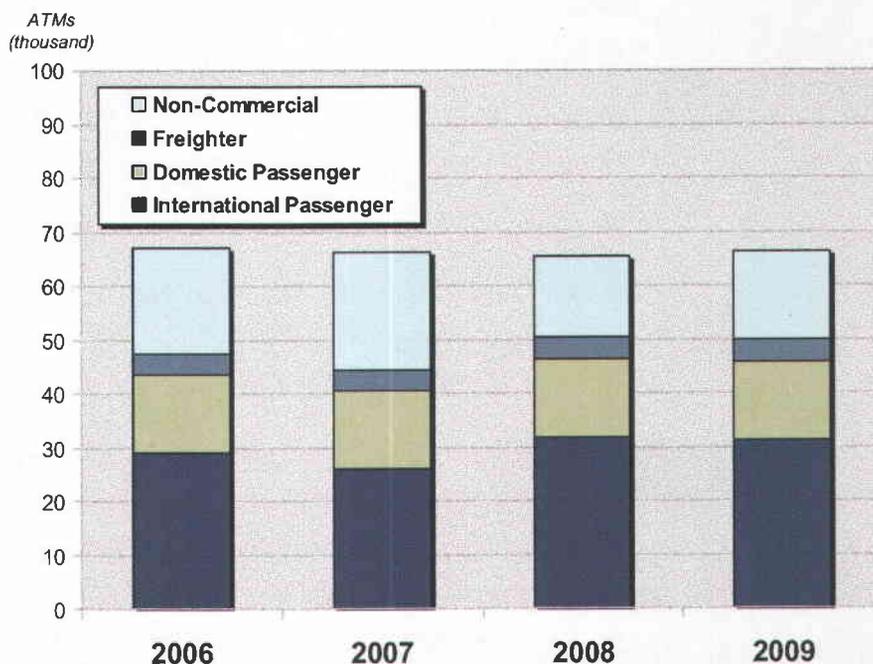
- International Passenger flights
- Domestic Passenger flights
- Freighter flights (cargo only)

⁶⁹ Each aircraft arrival or departure is counted as one ATM.

- General Aviation (private aviation, government and military flights)

Exhibit 4-16 below shows Piarco operations over the last four years. While international passenger and cargo operations have grown since 2006, and domestic passenger operations have basically stayed flat, general aviation traffic has dropped significantly.

Exhibit 4-19: Piarco Aircraft Operations, 2006-2009



Source: AATT

Note: Data on ATMs by operations category not available for prior years

In the first two months of 2010, commercial movements (passenger and cargo) grew by 6.2% year-on-year, while non-commercial operations increased by 27.9%.

4.2.5 Long-Term Aviation Forecast

SH&E developed new long-term forecasts of aviation activity that cover the period from 2010 to 2030 and address the following three principal areas of airport activity at Piarco:

- Passengers
- Cargo volumes
- Air transport movements (ATMs)

SH&E produced two versions of these forecasts, a “Base Case” which reflects what the most likely traffic scenario and an “Alternate Case” that assumes a faster expansion of cargo service and tonnage in 2012-2013. While the two sets of

forecasts differ in terms of cargo tonnage and total ATMs (due to increased freighter operations), they are identical in terms of projected passengers and passenger aircraft movements.

The passenger and cargo forecasts incorporate traffic growth forecasts from several external sources and SH&E's judgment, while the cargo forecasts use a combination of economic projections and SH&E's judgment. The forecasts of aircraft operations are derived from the forecasts of passengers and cargo tonnage by applying SH&E's own assumptions regarding changes in service patterns and load factors, while non-commercial traffic is forecast as a function of local economic growth.

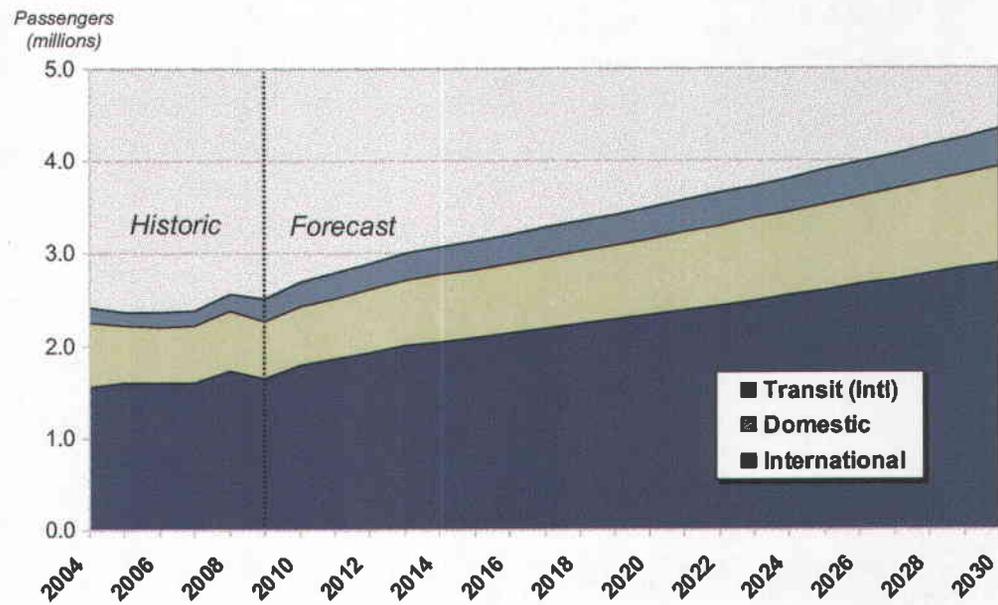
In addition to the new traffic forecasts, SH&E also developed forecasts of fuel flowage at Piarco based on the two traffic forecasts.

Passenger Forecast

SH&E based its forecasts of Piarco passengers on external growth forecasts from IATA and Airbus. For its forecast of international passengers, SH&E used IATA's forecast of 3.8% average annual growth in Trinidad and Tobago international passengers over the 2009-2013 period, applying it to Piarco international passengers for 2010-2013. However, based on SH&E's assumption that 2010 growth will "snap back" at a higher rate following economic recovery, the IATA growth rate was applied to 2008 passengers (pre-recession) to calculate 2010 international passengers, making the effective 2010 growth rate for international passengers 8.5%. Beginning in 2014, international passengers are assumed to grow at 2.2% per year, the growth rate forecast by Airbus for Caribbean-US passenger traffic in its long-term (2009-2028) forecast. For its forecast of domestic passengers, SH&E also used forecasts from IATA and Airbus. For 2010-2013, the IATA forecast of 3.4% annual growth in Intra-Latin America/Caribbean traffic was used, while Airbus' long-term forecast of 2.3% annual growth in domestic Caribbean traffic was applied for the period from 2014 to 2030. SH&E forecast transit passengers as a percentage of international terminal passengers and assumed that this percentage would decline by 0.05% per year from its 2009 level of 15% of international O&D passengers. Transit passengers are assumed to be flying on international flights but are not counted as terminal passengers.

Both Exhibit 4-20 and Exhibit 4-21 below show SH&E's forecast of international, domestic and transit passengers.

Exhibit 4-20 Forecast of Piarco Passengers, 2010-2030



Source: SH&E analysis

Exhibit 4-21: Forecast of Piarco Passengers, 2010-2030

	Terminal Passengers			Transit	Total
	Intl	Dom	Total	Intl	
Passengers (thousand)					
2010	1,794	639	2,433	267	2,700
2015	2,093	739	2,832	307	3,138
2020	2,333	828	3,161	336	3,497
2025	2,601	928	3,529	368	3,897
2030	2,900	1,039	3,940	403	4,343
Average Annual Growth					
2004-2009	1.3%	-2.7%	0.1%	10.1%	0.9%
2010-2015	3.1%	3.0%	3.1%	2.8%	3.1%
2015-2020	2.2%	2.3%	2.2%	1.8%	2.2%
2020-2025	2.2%	2.3%	2.2%	1.8%	2.2%
2025-2030	2.2%	2.3%	2.2%	1.8%	2.2%
2010-2030	2.4%	2.5%	2.4%	2.1%	2.4%

Source: SH&E analysis

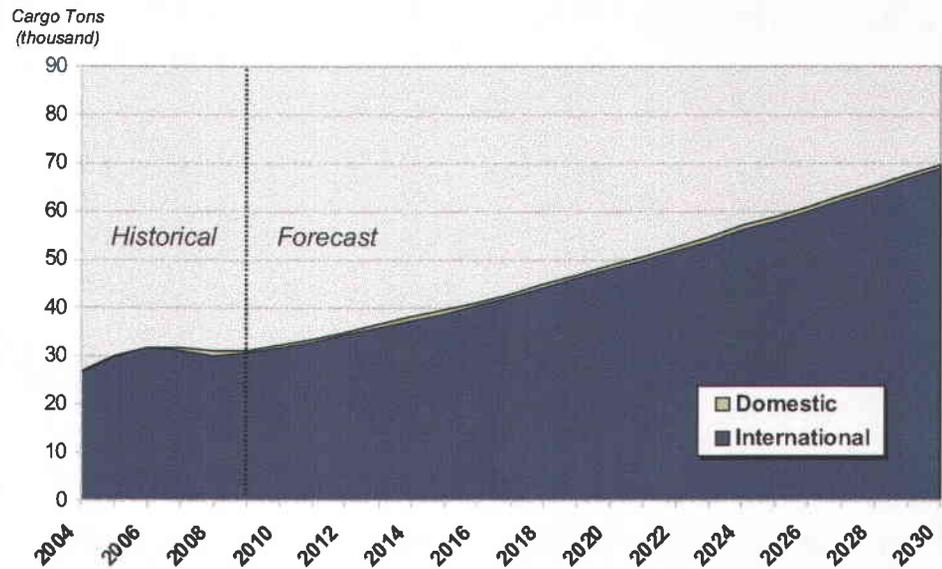
Cargo Forecast

In its Base Case forecast of cargo tonnage at Piarco, SH&E used an econometric approach. First, separate growth rate projections were calculated for air exports, air

imports and domestic cargo based on forecast GDP growth and assumptions on elasticity of cargo growth relative to GDP growth. For air exports, the Economist Intelligence Unit (EIU)'s forecast of U.S. real GDP growth and an assumed elasticity of 2.0 (declining to 1.6 by 2030) were used. For growth in Piarco air imports, the (EIU) forecast of Trinidad and Tobago's real GDP growth was used with an assumed elasticity of 1.5 (declining to 1.1 by 2030). For domestic cargo tonnage, the same Trinidad and Tobago GDP growth forecast was used but with a lower elasticity of 1.0 declining to 0.6 by 2030.

Exhibit 4-22 and Exhibit 4-23 show SH&E's Base Case forecast of Piarco cargo tonnage.

Exhibit 4-22 Piarco Cargo Tonnage Forecast, 2010-2030 (Base Case)



Source: SH&E analysis

Exhibit 4-23 Piarco Cargo Tonnage Forecast, 2010-2030 (Base Case)

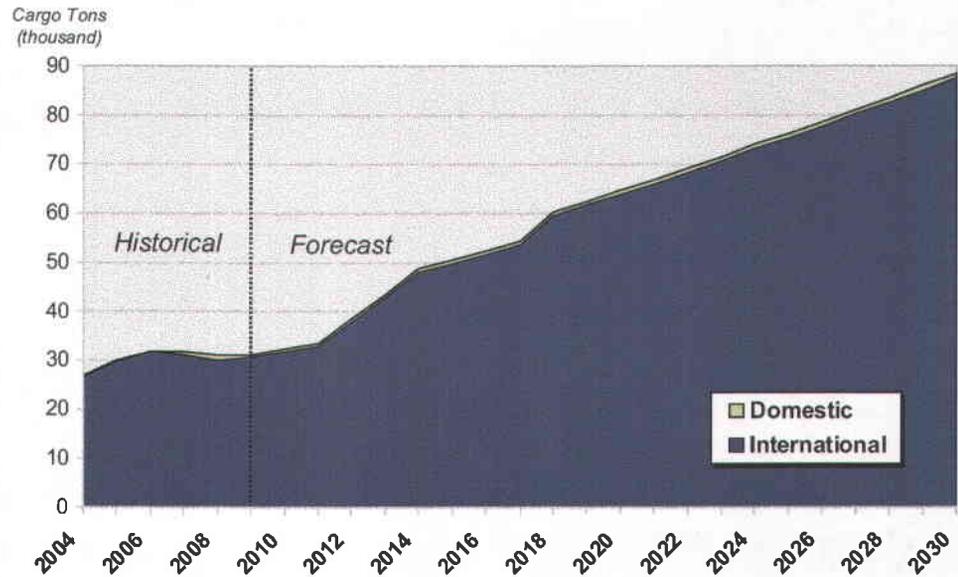
	Cargo Tonnage		
	Intl	Dom	Total
<u>Cargo Tons</u>			
2010	31,737	626	32,363
2015	38,956	719	39,676
2020	47,903	797	48,700
2025	58,082	871	58,953
2030	68,775	939	69,713
<u>Average Annual Growth</u>			
2004-2009	2.9%	11.0%	3.1%
2010-2015	4.2%	2.8%	4.2%
2015-2020	4.2%	2.1%	4.2%
2020-2025	3.9%	1.8%	3.9%
2025-2030	3.4%	1.5%	3.4%
2010-2030	3.9%	2.0%	3.9%

Source: SH&E analysis

In the Alternate Case cargo forecast, SH&E used the Base Case cargo tonnage forecast as specified above but added incremental tonnage from an assumed increase in international freighter service. This service increase was based on the scenario in which Amerijet adds one daily Piarco-South America roundtrip frequency in 2012. Amerijet then increases its daily flights by one roundtrip in 2013, 2014, and 2018, all operated with a Boeing 767. The incremental cargo tonnage from this service expansion is calculated based on current cargo load factors and an assumed 0.1 ton increase in payload per year.

Exhibit 4-24 and Exhibit 4-25 show SH&E's Alternate Case forecast of Piarco cargo tonnage.

Exhibit 4-24: Piarco Cargo Tonnage Forecast, 2010-2030 (Alternate Case)



Source: SH&E analysis

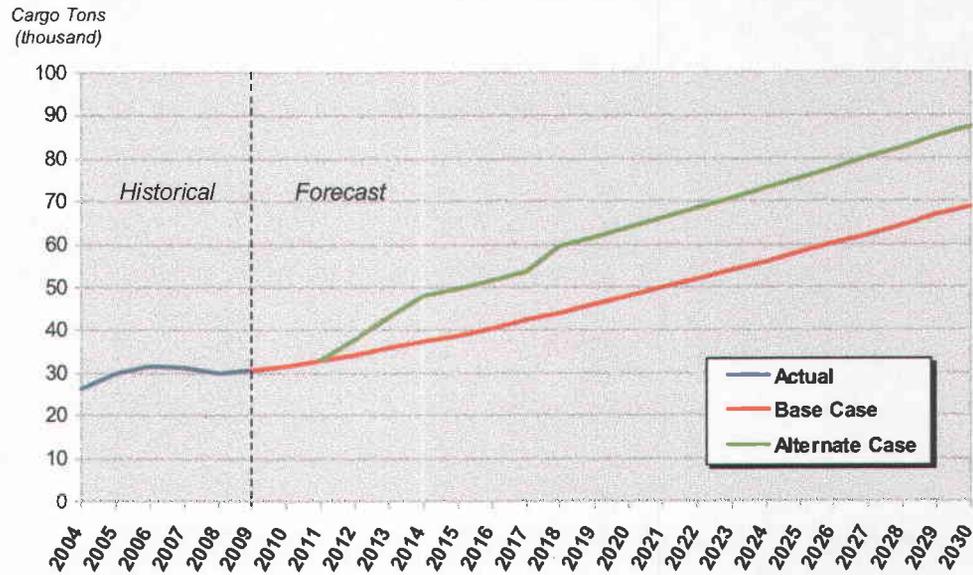
Exhibit 4-25: Piarco Cargo Tonnage Forecast, 2010-2030 (Alternate Case)

Cargo Tons	Cargo Tonnage		
	Intl	Dom	Total
2010	31,737	626	32,363
2015	49,774	719	50,493
2020	63,786	797	64,584
2025	75,425	871	76,296
2030	87,578	939	88,517
Average Annual Growth			
2004-2009	2.9%	11.0%	3.1%
2010-2015	9.4%	2.8%	9.3%
2015-2020	5.1%	2.1%	5.0%
2020-2025	3.4%	1.8%	3.4%
2025-2030	3.0%	1.5%	3.0%
2010-2030	5.2%	2.0%	5.2%

Source: SH&E analysis

Exhibit 4-26 below provides a comparison of the two different forecasts of cargo tonnage.

Exhibit 4-26: Comparison of Base and Alternate Case Cargo Forecasts



Source: SH&E analysis

Operations Forecast

SH&E’s forecasts of aircraft operations at Piarco were derived from its forecasts of passengers and cargo tonnage. To calculate future international and domestic passenger operations, SH&E converted passengers to ATMs based on projected seat capacity per aircraft and estimated load factors. For international operations, seat capacity was assumed to grow by 0.5 seats per year from the 2010 level of 115 seats per aircraft (based on OAG schedules) and average load factor was assumed to increase by 0.3 percentage points per year from 61.6% in 2009. For domestic operations, seat capacity was assumed to grow by 0.5 seats per aircraft from the current level of 50 seats per aircraft, and the load factor was assumed to remain at 85% throughout the forecast period (based on historical levels.)

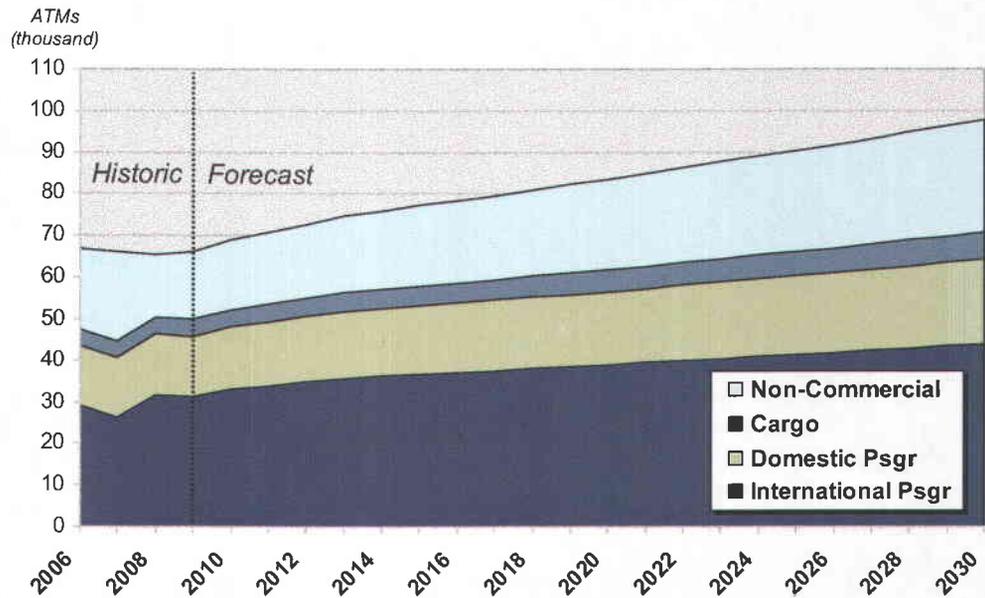
To forecast cargo freighter operations, SH&E first converted the Base Case cargo tonnage forecast to ATMs based on its assumptions regarding the ratio of belly cargo tonnage (carried on passenger aircraft) to freighter cargo tonnage, along with assumptions regarding average freighter payload. Based on SH&E’s analysis of historical data, 58.5% of cargo tonnage was carried on freighter aircraft; this ratio was assumed to remain the same throughout the forecast period. By converting the freighter portion of cargo tonnage to freighter ATMs based on the assumption that average freighter payload increases by 0.1 ton per ATM each year (from 4.3 tons in 2009 to 6.4 tons in 2030), SH&E derived its Base Case forecast of cargo operations.

The Alternate Case forecast was then developed by adding one daily freighter roundtrip (730 annual ATMs) in 2012, 2013, 2014, and 2018.

Non-Commercial ATMs were projected to grow at the same rate as Trinidad and Tobago real GDP growth (as forecast by the EIU), and these were summed with passenger and cargo operations for a forecast of total aircraft operations at Piarco.

Exhibit 4-27 below shows SH&E's Base Case forecast of Piarco operations.

Exhibit 4-27: Piarco Operations Forecast, 2010-2030 (Base Case)



Source: SH&E analysis

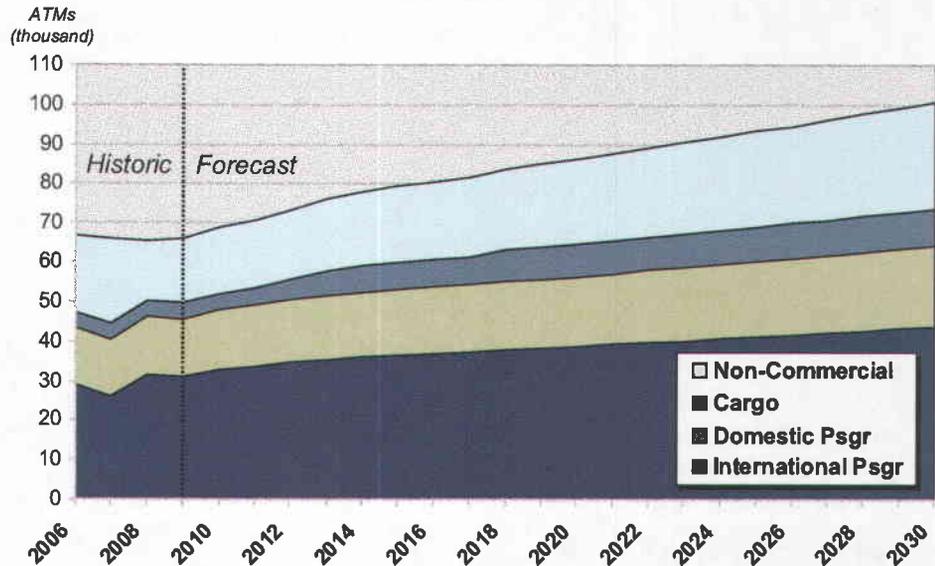
Exhibit 4-28: Piarco Operations Forecast, 2010-2030 (Base Case)

	Air Transport Movements				Total
	Intl (Pmgr)	Dom (Pmgr)	Cargo (Intl)	GA	
ATM's					
2010	32,979	15,036	4,268	16,698	68,981
2015	36,616	16,561	4,702	19,230	77,109
2020	38,892	17,712	5,241	21,641	83,486
2025	41,350	18,982	5,811	24,234	90,377
2030	44,003	20,382	6,338	27,034	97,757
Average Annual Growth					
2006-2009	2.3%	0.2%	2.0%	-5.7%	-0.4%
2010-2015	2.1%	2.0%	2.0%	2.9%	2.3%
2015-2020	1.2%	1.4%	2.2%	2.4%	1.6%
2020-2025	1.2%	1.4%	2.1%	2.3%	1.6%
2025-2030	1.3%	1.4%	1.8%	2.2%	1.6%
2010-2030	1.5%	1.5%	2.0%	2.4%	1.8%

Source: SH&E analysis

Exhibit 4-29 and Exhibit 4-30 below show SH&E's Alternate Case forecast of Piarco aircraft operations.

Exhibit 4-29: Piarco Operations Forecast, 2010-2030 (Alternate Case)



Source: SH&E analysis

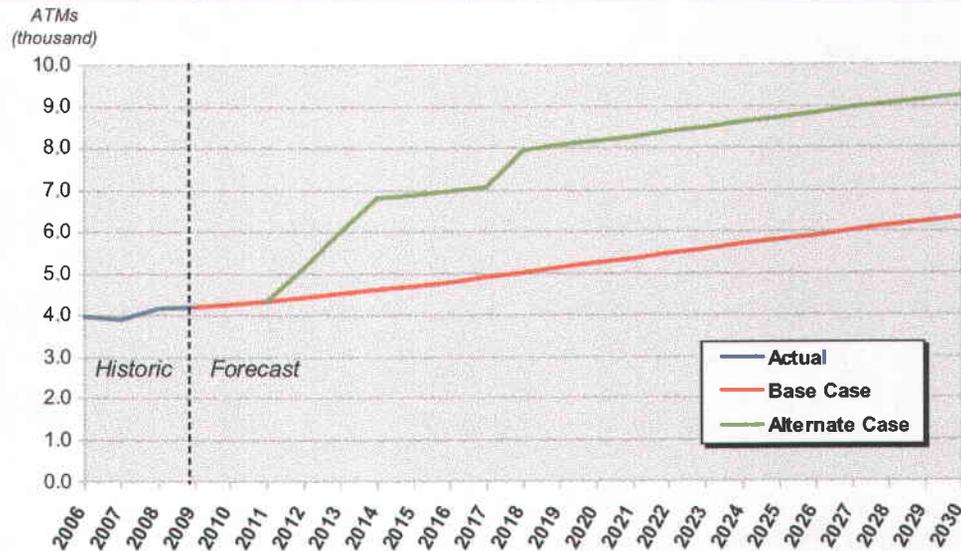
Exhibit 4-30: Piarco Operations Forecast, 2010-2030 (Alternate Case)

	Air Transport Movements				Total
	Intl (Psg)	Dom (Psg)	Cargo (Intl)	GA	
<u>ATM's</u>					
2010	32,979	15,036	4,268	16,698	68,981
2015	36,616	16,561	6,892	19,230	79,299
2020	38,892	17,712	8,161	21,641	86,406
2025	41,350	18,982	8,731	24,234	93,297
2030	44,003	20,382	9,258	27,034	100,677
<u>Average Annual Growth</u>					
2006-2009	2.3%	0.2%	2.0%	-5.7%	-0.4%
2010-2015	2.1%	2.0%	10.1%	2.9%	2.8%
2015-2020	1.2%	1.4%	3.4%	2.4%	1.7%
2020-2025	1.2%	1.4%	1.4%	2.3%	1.5%
2025-2030	1.3%	1.4%	1.2%	2.2%	1.5%
2010-2030	1.5%	1.5%	3.9%	2.4%	1.9%

Source: SH&E analysis

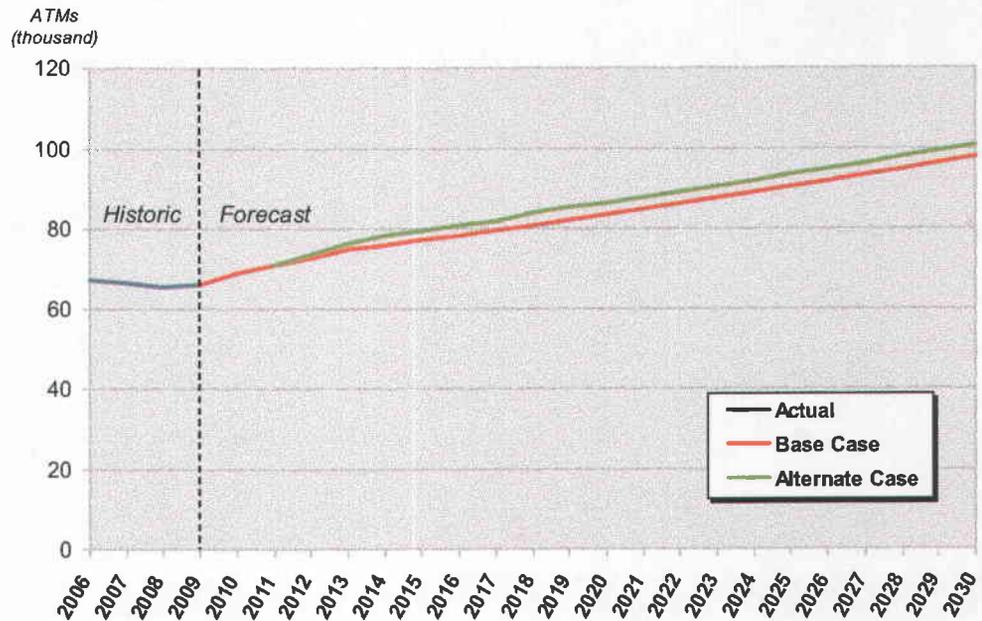
As previously noted, the higher volume of cargo operations is the only difference between the Base Case and Alternate Case forecasts, and Exhibit 4-31 below shows the difference in cargo operations in each forecast.

Exhibit 4-31: Cargo Operations -- Comparison of Base and Alternate Forecasts



Source: SH&E analysis

Exhibit 4-32 compares the total aircraft operations in the Base and Alternate Case forecasts.

Exhibit 4-32: Total Operations - Comparison of Base and Alternate Forecasts

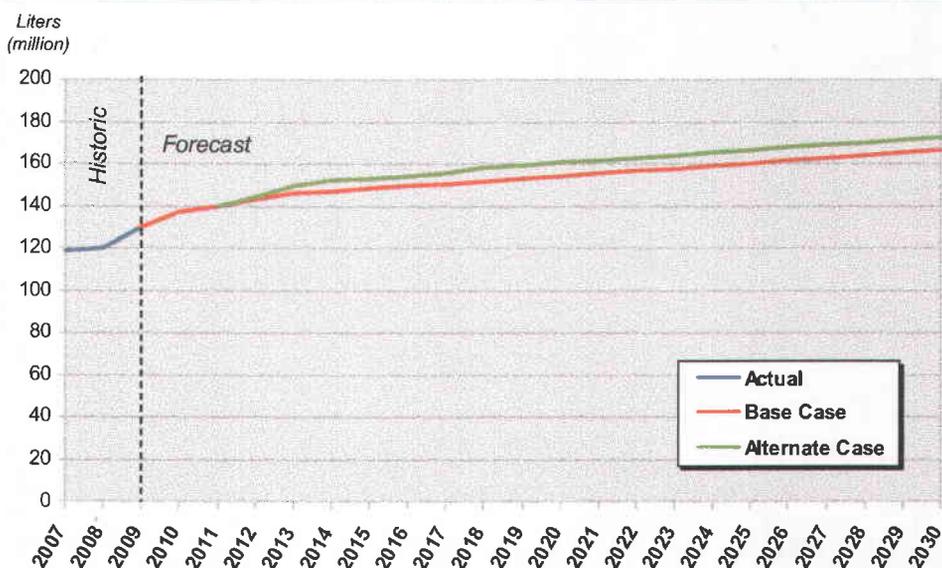
Source: SH&E analysis

4.2.6 Fuel Flowage Forecast

Based on its aviation forecasts, SH&E also developed long-term forecasts of fuel flowage at Piarco. The fuel flowage forecasts cover the aviation forecasts' projected aircraft operations, the composition of these movements in terms of aircraft type and stage length, average fuel consumption per departure for each aircraft size category (as defined by ICAO categories) and factors in assumptions regarding improvements in aircraft fuel efficiency over time. The fuel flowage forecasts assume that average stage lengths and the composition of operations in terms of aircraft size categories remain the same as they are today within each operations category (with the exception of increased stage length and greater Size Category D cargo operations from the incremental freighter service in the Alternate Case). The forecasts also assume that aircraft fuel consumption per kilometer decreases by 0.5% per year due to technological advances and fleet renewal.

To ensure that the fuel forecast took into account non-commercial operations, SH&E first calculated preliminary fuel flowage for each year of the forecast period and for 2007-2009 based on historical operations using the methodology described above. After comparing the calculated fuel flowage in 2007-2009 with the actual fuel flowage from these years, a scaling factor was derived from the ratio of calculated versus actual. This scaling factor was then applied to the preliminary forecasts to produce the final fuel flowage forecasts. Exhibit 4-33 below shows SH&E's fuel flowage forecasts for its Base Case and Alternate Case aviation forecasts.

Exhibit 4-33: Forecast of Fuel Flowage at Piarco, 2010-2030



Source: SH&E Analysis

Exhibit 4-34: Forecast of Fuel Flowage at Piarco, 2010-2030

	Fuel Flowage	
	Base Case	Alternate Case
<u>Million Liters of Fuel</u>		
2010	137	137
2015	148	153
2020	154	160
2025	160	166
2030	167	173
<u>Average Annual Growth</u>		
2007-2009	4.5%	4.5%
2010-2015	1.6%	2.3%
2015-2020	0.8%	0.9%
2020-2025	0.8%	0.7%
2025-2030	0.8%	0.7%
2010-2030	1.0%	1.2%

Source: SH&E analysis

4.3 CARGO INFRASTRUCTURE DEVELOPMENT REQUIREMENTS

4.3.1 Overview of Required Cargo Facility Components

PUBLIC VERSION

For entirely or substantially new cargo terminals to be built at an airport where it is expected that all-cargo/freighter aircraft will operate in addition to cargo-carrying passenger aircraft, the chosen cargo complex site should include provisions for future expansion of all facilities. IATA guidelines do not recommend constructing the cargo facility to the foreseen ultimate requirements and this project should therefore be phased accordingly. IATA essentially recommends that these ultimate requirements be defined in the long-term and that the space provisions and reservations be made to accommodate them if and when the need arises, thus avoiding the risk of the facility becoming obsolete at some point in time. As such, SH&E has included future expansion land to the east of the proposed concept.

According to literature contained within the "IATA Airport Development Reference Manual", Chapter 'O', the proposed facility for POS as conceptually designed by SH&E is within the typical size range, from 1,000 to 10,000m² and from 10,000 to 50,000m² of covered space (this refers to the total covered space involved in a project or a set of buildings jointly planned and developed). It is generally understood that this size range covers most of the foreseeable requirements for international multi-user cargo terminals. Smaller or larger buildings (e.g. 500 m² or 100,000m²) may require different design or layout solutions to be applied, but the basic objectives should remain the same. It should be noted that, even where a significant portion of the total cargo volume is carried by all-cargo/freighter aircraft, the majority is normally carried on passenger aircraft. Hence, although it is recommended to retain space provision for the nearby handling of all-cargo/freighter aircraft (even if there are none at the time of planning), all aspects of moving cargo to and from the passenger terminals should be fully integrated in the building design at all times. This will usually require a preliminary assessment of the variety of means of transportation to be used (refer to IATA Airport Handling Manual AHM 960/966 and 967 for details of the various types of dollies and cargo transport vehicle available).

Based on SH&E's analysis, the proposed cargo facility is to consist of the following:

- An aircraft cargo processing facility that can accommodate 33,000 tons of cargo in 2010, 48,700 tons of cargo for 2020, and 69,700 tons of cargo for 2030. Rounded off, the following figures were used in order to accommodate these trends: 30,000 tons for the initial design to accommodate current cargo volumes (Phase I); 50,000 tons to accommodate cargo until the Year 2020 (Phase 2) and 70,000 tons of cargo to be accommodated by the 2030 facility design (Phase 3).
- An aircraft parking apron for two (2) to five (5) aircraft based on AmeriJet's existing and future operations and ABX's existing and future operations. It

should be noted that Caribbean Airlines leases one of the ABX B767-200 aircraft from its total fleet of 24 aircraft used for its cargo business.

- The appropriate administrative and business office facilities for personnel.
- The appropriate cold-storage facilities.
- Plans for future addition of larger aircraft parking and processing.
- Appropriate access and truck docking facilities based on IATA recommendations.

SH&E further recommends the addition of the following items:

- Apron space for up to five (5) aircraft of various ICAO Code D sizes to satisfy a demand of double the operations over a 10-15 year period with the option of expanding aircraft parking in an easterly direction.
- General Service Equipment (GSE) storage area.
- Provision of correct entrance taxiway location and design.

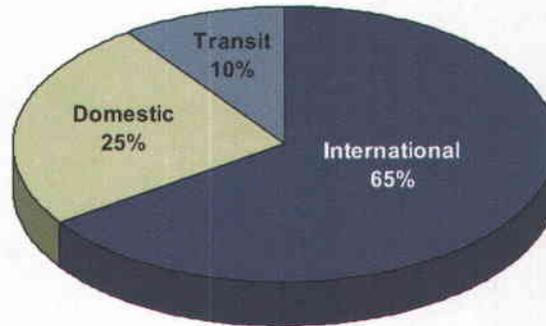
SH&E also recommends that before any work is carried out to construct the cargo facilities that proper boundary and land surveys be conducted as current airport information shows a number of small boundary and linear discrepancies in the airport's CAD files when this report was conducted.

SH&E recommends separating the Cargo Facility construction into three phases as the 50,000 tons expected for 2010 is still 17,000 tons more than current tonnage figures and would therefore be required within the next 10 years. As no dedicated facility has been planned, a 30,000-ton capable facility will ensure demand can be met for the next five years. Phase 2 will expand the facility by another 50,000 tons accommodating demand until 2020; Phase 3 will add another 20,000 tons of processing space which will accommodate the forecast trends until 2030.

4.3.2 Cargo Facility Design and Sizing

The majority of the design considerations were derived from SH&E's forecast of cargo tonnage and operations and Task 2 analysis, and on IATA standards included in the "IATA Airport Development Reference Manual" specifically pertaining to Chapter '0' ("Cargo & Separate Express Facilities Terminal"). All facility sizing was therefore based on these IATA recommendations, in addition to SH&E's research/benchmarking analyses building upon work conducted by 3rd party international cargo developers for similar sized facilities.

Exhibit 4-7: Piarco Passengers, 2009

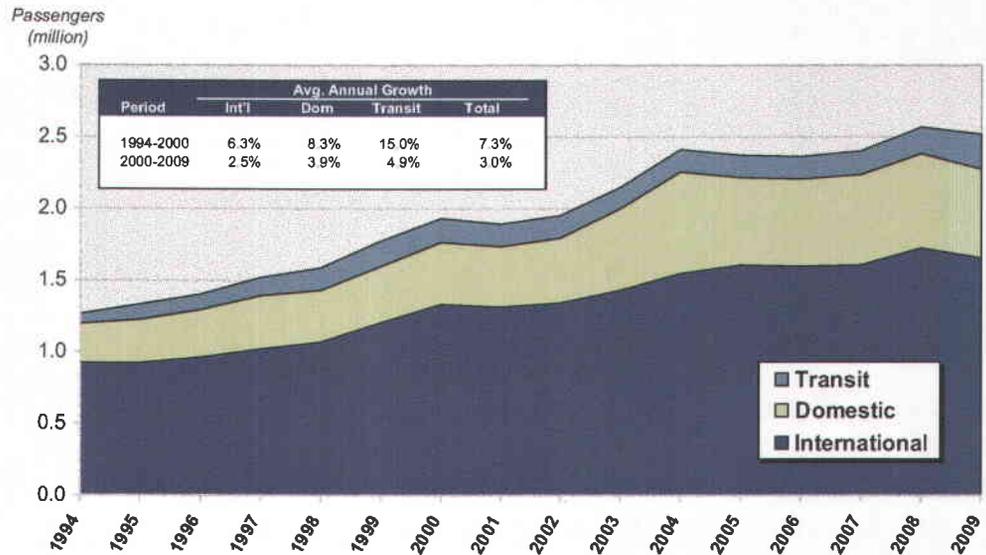


Source: AATT

While long-term growth in Piarco passenger traffic has been strong, recent growth has been quite volatile, with declines in international passengers in 2006, 2007, and 2009 offsetting growth of 7-8% in other years, and growth in domestic passengers ranging from as high as 30% in 2003 to as low as -14% in 2005. In addition to the effects of economic fluctuations, this volatility has also been driven by changes in air service, especially the collapse of BWIA and subsequent creation of Caribbean Airlines from the remains of the old national airline. Local economic growth and service expansion following the successful emergence of the new carrier led to 8.1% growth in international passengers and 2.8% growth in domestic passengers in 2008, but the economic recession brought negative growth of -4.3% and -4.7% respectively in 2009. (These declines in terminal passengers were somewhat offset by growth in transit passengers.)

The exhibit below shows historical passenger traffic at Piarco, including the lower growth and greater volatility after 2000.

Exhibit 4-8: Piarco Passengers, 1994-2009



Source: AATT

Despite the traffic decline in 2009, Piarco fared better than many large airports in the region in terms of passenger growth. As seen in Exhibit 4-9 below, only four of the top Caribbean airports that submitted 2009 data to the Airports Council International (ACI) have experienced higher growth than Piarco.

Exhibit 4-9: Passengers at Caribbean Airports, 2009

Airport	Country	Code	Passengers	Change
San Juan	Puerto Rico	SJU	8,308,490	-14.3%
Punta Cana	Dominican Republic	PUJ	4,077,596	11.2%
Montego Bay	Jamaica	MBJ	3,097,075	-2.0%
Santo Domingo	Dominican Republic	SDQ	2,887,185	6.2%
Port of Spain	Trinidad & Tobago	POS	2,519,174	-1.8%
Bridgetown	Barbados	BGI	1,933,475	-10.7%
Aruba	Aruba	AUA	1,923,623	-2.5%
Pointe-a-Pitre	Guadeloupe	PTP	1,839,786	-8.9%
St. Maarten	Netherland Antilles	SXM	1,627,113	-5.4%
Fort-de-France	Martinique	FDX	1,607,783	-3.9%
Kingston	Jamaica	KIN	1,592,297	-6.9%
Curacao	Netherland Antilles	CUR	1,473,182	*
St. Thomas	US Virgin Islands	STT	1,319,199	*
Puerto Plata	Dominican Republic	POP	1,096,267	-9.1%
Grand Cayman	Cayman Islands	GCM	1,082,613	*
Antigua	Antigua/Barbuda	ANU	1,005,706	*
Santiago	Dominican Republic	STI	863,937	7.1%
Bermuda	Bermuda	BDA	805,802	-9.2%
Tobago	Trinidad & Tobago	TAB	742,256	-8.9%
St. Lucia	St. Lucia	UVF	520,252	8.6%

Source: ACI

Note: * Indicates 2008 data

Cargo Processing Facility Sizing

The size of the cargo terminal building facility for this study was derived from SH&E’s forecast of annual Piarco cargo movements in 2010, 2020, and 2030. The space required is a function of the facility's proposed processing capability. According to IATA, the planning ratios shown in Exhibit 4-35 can be used if no site specific information is available.

Exhibit 4-35: IATA Cargo facility Sizing Table

Process	Tons Per Square Meter
Low Automation (mostly manual)	5 tons per square meter
Automated (Average)	10 tons per square meter
Highly Automated	17 tons per square meter

Source: IATA Airport Development Reference Manual

Upon analysis of the above table and survey research conducted by SH&E, the POS cargo facility was sized based on 10 tons per square meter. The assumption here is indeed that the automation will be “average” as cargo throughput is not as high as major large airports such as Hong Kong or JFK. Using the 10 tons per square meter, the following square meter facility sizing requirements were used:

Existing Conditions (2010): 33,000 tons = *3,300 square meters*

Phase 1 (2010-2014): 31,000 tons = *3,100 square meters*

Phase 2 (2010 – 2020): 50,000 tons (rounded) = *5,000 square meters*

Phase 3 (2020 – 2030): 70,000 tons = *7,000 square meters*

In the proposed design layout, there will be ample room for cold storage facilities. The exact sizing of the cold storage facilities can therefore be determined upon the actual design of the future facility and the needs of the cargo carriers/future tenants. Furthermore, special storage facilities should be positioned without detriment to normal cargo flow and future expansion. In order to provide each user airline/carrier with the required possibility of conducting its own commercial cargo activity (i.e. customer contact, document handling and processing, etc.) it is essential that the cargo terminal complex design provides proportional office space in each individual section (module) allocated, including, in the event of later expansion or reassignment of the modules to other operators, a re-arrangement capability. The easiest way to provide this flexibility, without detriment to normal cargo flow and future expansion is to design continuous office space at a mezzanine level above the landside dock area (import delivery and export acceptance) over the whole terminal transverse width. This has been taken into consideration with the SH&E conceptual design.

Cargo Apron Sizing

According to IATA, as a general rule, the apron size for all cargo facilities lies in the range of 4 to 5 times that of the cargo terminal building area. This includes aircraft stands, internal taxilanes, airside roads, ground service equipment parking as well as processing zones on the apron. If more defined data is not available, the following procedure can be used to size the ramp area. The tonnage per annum is used to derive at the number of aircraft per day and thus enabling the planner to size the ramp accordingly. The annual tonnage divided by 250 (days) provides the daily tonnage. The average load per aircraft (all cargo) is 50-55 tons. The typical fleet mix for an all cargo operation is as follows:

Exhibit 4-36: Typical Fleet Mix Tonnage Loads (IATA)

Aircraft (ICAO)	Fleet Mix	Average Load
Code E	70-75%	60 tons
Code D	20-25%	30 tons
Code C	5%	10 tons

Source: IATA Airport Development Reference Manual

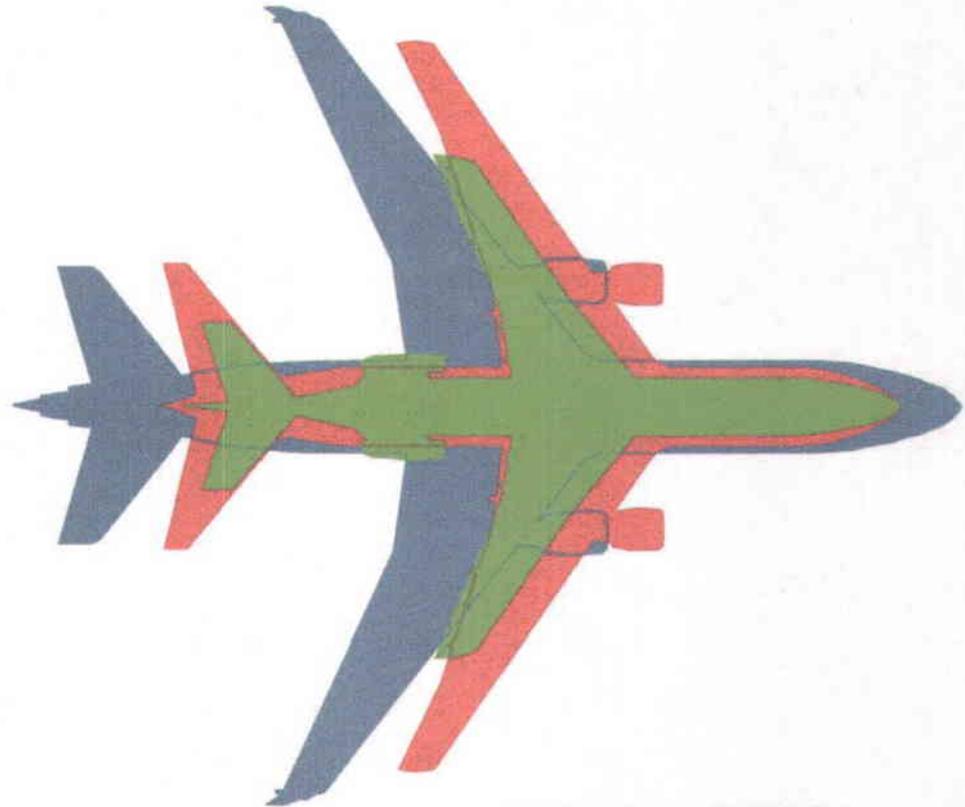
As no Code E aircraft cargo operations are anticipated at POS, the apron size was based on large Code D aircraft capabilities, including the MD-11F as the largest possible Code D aircraft. Using the abovementioned formula, the facility at POS should be able to accommodate 200 tons per day by the Year 2020 based on 50,000 tons annually. Using an average load of 40 tons (between a small ICAO Code D aircraft and a large ICAO Code D aircraft) this yields a total handling capacity requirement of five (5) aircraft per day. By the Year 2030 with 70,000 annual tons of cargo volume, the facility should be capable of processing 280 tons per day, handling a total number of seven (7) aircraft per day while utilizing the same 40 tons per aircraft configuration. It is important to note that two other important factors in facility sizing are the hours of operation as well as the average turnaround time per aircraft. All cargo facilities typically operate no less than 20 hours a day, with a typical turnaround time of 4 to 7 hours per aircraft. Future facility planners should seek operational confirmation of the turnaround time expectation and plan accordingly. Assuming that POS will require its facilities to handle five aircraft per day, and that ground crews can turn around cargo aircraft at the medium portion of the spectrum with a five hour turnaround time per aircraft, then an apron that fits 2 – 3 aircraft simultaneously will be more than sufficient for a 20-hour per day cargo facility operation by the Year 2020. Having the capability of handling 2-3 simultaneous aircraft will also prevent any competing airline/cargo operator schedule conflicts and allow for more flexibility, including the provision of cargo handling for new potential carriers. By adding two more aircraft into the mix, SH&E considers a

total apron size suited for 4-5 aircraft sufficient. It should be noted that the location of the proposed Phase I facility and its conceptual design will allow for two (2) cargo aircraft; Phases II and III add to the apron for an additional three B727 or two B767 aircraft, without the need for major apron pavement expansion, therefore minimizing overall construction costs.

Critical Aircraft

The critical aircraft for this design were the Boeing 767-200 as used by Caribbean Airlines through a contract with ABX Cargo and the Boeing 727-200 as used by Amerijet International Cargo. SH&E's overall design was developed to also be able to accommodate larger aircraft based on potential future fleet changes and newer cargo aircraft. The largest aircraft used for the design within ICAO Code D was the MD-11F. Exhibit 4-37 depicts the aircraft and their respective ICAO Code information.

Exhibit 4-37: Aircraft Comparisons and Important Facility Design Data



	B767-200	B727-200	MD 11/CF
General			
FAA Airplane Design Group	IV	III	IV
ICAO Code Letter	D	C	D
Main dimensions			
Overall length (m)	48.52	46.68	61.82
Wing span (m)	47.57	32.92	51.99
Tail height, min (m)	15.60	9.61	17.31
Tail height, max (m)	16.13	10.65	17.93
Wheel base (m)	19.69	19.28	24.81
Nose to nose gear (m)	4.54	4.60	8.50
Nose to main gear center (m)	24.23	23.88	33.11
Cockpit to main gear center (m)	21.97	21.39	31.10
Main gear wheel span (m)	10.90	7.01	12.57
Outer engine span (m)	18.81	7.10	19.42
Turning characteristics			
Nose gear angle, max (deg)	61.0	75.0	67.0
Nose gear turning radius, min (m)	22.51	19.96	26.74
Outer wing turning radius, min (m)	46.87	37.00	54.04

Source: SH&E analysis

4.3.3 Cargo Facility Conceptual Design Components

The Cargo Facility Design is comprised of the following, based on all ICAO and IATA recommended standards and the aforementioned design considerations (See Exhibit 4-38 and Exhibit 4-39 for the detailed layout of the Cargo Facility):

Phase I:

- **One (1) Main Cargo Processing Facility:** on the site of the old terminal building; the Phase I facility can handle 31,000 tons and includes cold storage.
Total Size: 2,016 square meters.
- **One (1) Cargo Ramp/Aircraft Parking Apron:** Exhibit 4-39 shows a layout for two (2) B727-200 aircraft in Phase I, which can be accommodated mostly by the existing pavement of the old passenger terminal area.
- **One (1) Main Cargo Processing Facility IATA Unit Loading Area:** Located towards the airside portion of the facility to unit loading area space.
Total Size: 310 square meters.
- **One (1) Mezzanine/Office Area:** Located on the landside portion of the cargo processing facility adjacent to the truck docking area. These offices will be located above the truck docking doors to facilitate staff and tenants.
Total Size: 775 square meters.

Phase II:

- **One (1) Main Cargo Processing Facility:** capable of processing all required cargo processes up to 50,000 tons annually to satisfy the SH&E forecast demand for 2020. The facility can also handle cold storage internally (175 square meters extra if needed) or in the extra spacing on the facility's eastern portion where the facility is slightly larger than the required 5,000 square meters. The facility utilizes existing apron pavement to save on construction costs.
Total Size: 5,175 square meters.
- **One (1) Cargo Ramp/Aircraft Parking Apron:** Phase II will provide for an additional two (2) B727-200 aircraft (or one B767-200 aircraft). The only area of the proposed parking apron that is not currently paved is the eastern portion of the proposed facility. This area would need to be paved accordingly in Phase II and encompasses 13,035 square meters. If a fifth aircraft parking space (shown by the purple aircraft in Exhibit 4-39) is required by 2030 then expansion to the west should be possible and this area should be designated as such by the airport authority unless it is being

utilized by the new Servisair facility. Operations may have to be scheduled accordingly for optimization of apron space. The current land-use plan's cargo area does not designate further ramp expansion; as such the square meter requirement will be left out.

Total Size: 13,035 square meters.

■ **One (1) Main Cargo Processing Facility IATA Unit Loading Area:**

Located towards the airside portion of the facility to provide 6 meters of unit loading area space. This is part of the main cargo facility's total 5,175 square-meter area.

Total Size: 690 square meters.

- **One (1) Mezzanine/Office Area:** Located on the landside portion of the cargo processing facility adjacent to the truck docking area. These offices will be located above the truck docking doors to facilitate staff and tenants. Per IATA, this portion typically encompasses approximately 25% of the cargo processing building.

Total Size: 1,500 square meters.

- **One (1) Trucking and Docking Area:** Designed based on IATA recommended standards, with a width of 57 meters encompassing a dual access trucking area and parking area. It runs the length of the cargo processing facility.

Total Size: 6,555 square meters.

- **One (1) Tenant Automobile Parking Area:** Located on the western portion of the facility, this area is designated for cargo tenants and their client parking.

Total Size: 1,340 square meters.

- **One (1) Additional Office Building Area:** Located on the southeast portion of the facility, this area of the land-use plan's cargo area has plenty of additional space for such business facilities which could aid in the maximization of airport cargo revenues.

Total Size: 1,650 square meters.

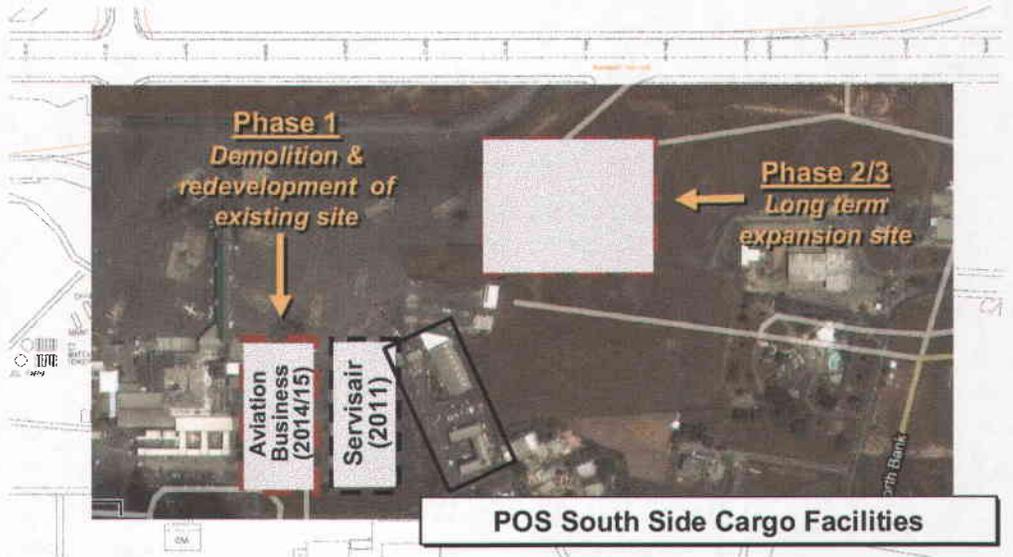
Phase III:

- **One (1) Cargo Processing Facility - Phase 3** will add another 2,490 square meters to the design to allow for potential increases in cargo tonnage by 2030. 2,000 square meters is the requirement, however, the additional 490 square meters also represent the maximum amount of expansion within the land-use plan's designated cargo area box. If more space and facilities are needed beyond 2030, SH&E recommends expansion towards the east or west

as depicted on the Exhibit 4-39 layout.

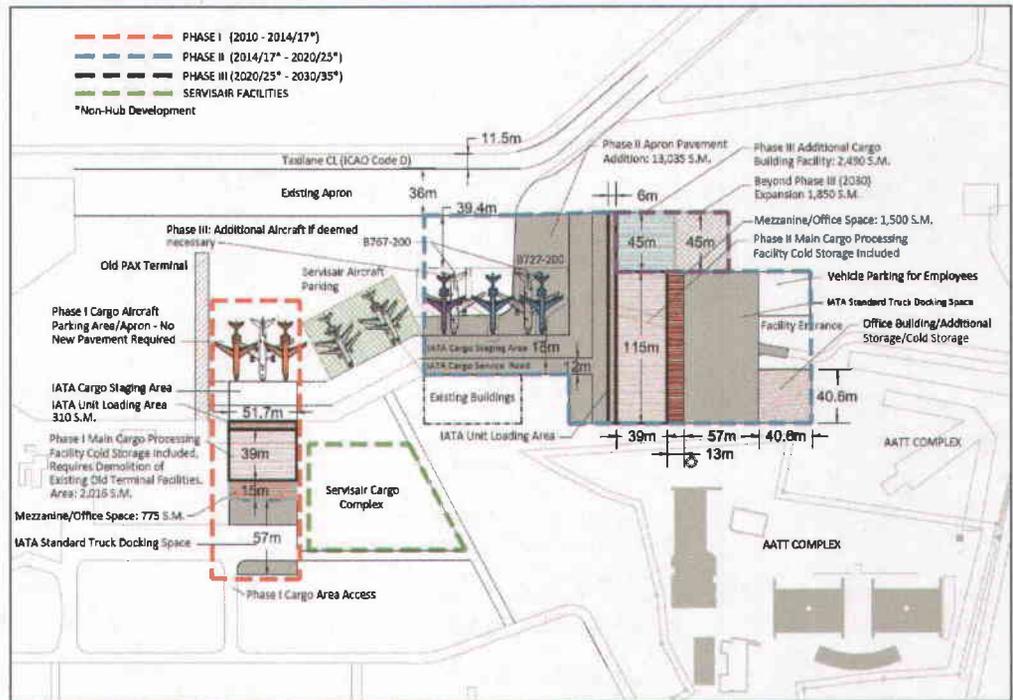
Total Size: 2,490 square meters.

Exhibit 4-38: Cargo Facility Location



Source: SH&E Analysis

Exhibit 4-39: Cargo Facility Layout (Detailed)



Source: SH&E Analysis

4.3.4 Cargo Facility ROM Costing

SH&E's cargo facility costing analysis was based on research of similar projects and their associated costs conducted within the last two years in close vicinity to Trinidad and Tobago. Prices were also based on recent project costs obtained from a 3rd Party Cargo Developer used in costing analyses at Miami International Airport. Prices were adjusted according to normal contingency rates and design fees used within the aviation construction industry. Original pricing was conducted in US FY 2010 dollars and were converted to Trinidad and Tobago Dollars (TTD) using the most current exchange rate at the time of this project according to the International Monetary Fund (IMF) of 1 USD = 6.34 TTD. The total rounded Rough-order-of-Magnitude (ROM) cost for the Short-Mid Term (Phase 1) was calculated as \$25,065,316 TTD (\$3,953,520 USD), the Medium Term (Phase 2) cost was estimated at \$100,862,761 TTD (\$15,908,953 USD), while the Long Term (Phase 3) ROM Cost was calculated as \$25,925,400 TTD (\$4,089,200 USD). The Total Project cost for the full All-Cargo facility for the forecast period constitutes \$151,853,500 TTD (\$23,951,600 USD). The following tables (Exhibit 4-40, Exhibit 4-41, and Exhibit 4-42) consist of a breakdown of then facility ROM costs:

Exhibit 4-40: ROM Cost Analysis, Phase 1: Short to Mid-Term (0-10 years)

Area Description	Area (S.M.)	Cost (USD)		
		USD/S.M.	Rounded	Cost (TTD)
Landside Areas				
Demolition of Existing Facilities	5,200	\$12	\$62,400	\$395,616
Trucking and Docking Area	1,486	\$86	\$127,796	\$810,227
Administration/Mezzanine Offices	775	\$970	\$751,750	\$4,766,095
Main Cargo Processing Facility	2,016	\$970	\$1,955,520	\$12,397,997
Access – NOT REQ'D – Use Existing Pavement	0	\$0	\$0	\$0
Automobile Parking for Employees and Business				
NOT REQ'D – Use Existing Pavement	0	\$0	\$0	\$0
Landside Areas Total	9,477		\$2,897,466	\$18,369,934
Airside Areas				
Additional Apron for Aircraft Parking – NOT REQUIRED – USE EXISTING APRON	0	\$0	\$0	\$0
Airside Areas Total	0		\$0	\$0
Total: Landside and Airside Areas (A)	9,477		\$2,897,466	\$18,369,934
Add Contractor Indirect Costs: +15% of (A)			\$434,620	\$2,755,490
Total Cost w/ Contractor Indirect Costs (B)			\$3,332,086	\$21,125,425
Add Contractor Fee: 5% of (B)			\$166,604	\$1,056,271
Total Cost with Contractor Fee (C)			\$3,498,690	\$22,181,696
Add Contractor Contingency Fee: 5% of (C)			\$174,935	\$1,109,085
Add Design Fees (Architectural, Structural, Civil, M.E.P., Airport Planner): 8% of (C)			\$279,895	\$1,774,536
TOTAL PROJECT COST: PHASE 1			\$3,953,520	\$25,065,316

Source: SH&E Analysis

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Exhibit 4-41: ROM Cost Analysis, Phase 2: Medium-Term (5-15 years)

Area Description	Area (S.M.)	USD/S. M.	Cost (USD)	
			Rounded	Cost (TTD)
Trucking and Docking Area	6,555	\$86	\$563,730	\$3,574,048
Administration/Mezzanine Offices	1,495	\$970	\$1,450,150	\$9,193,950
Main Cargo Processing Facility	5,175	\$970	\$5,019,750	\$31,825,213
Automobile Access Loop Road	1,250	\$86	\$107,500	\$681,550
Automobile Parking for Employees and Business	1,340	\$86	\$115,240	\$730,622
Extra Office Buildings	1,650	\$970	\$1,600,500	\$10,147,169
Landside Areas Total	17,465		\$8,856,870	\$56,152,553
Airside Areas				
Additional Apron for Aircraft Parking	13,035	\$215	\$2,802,525	\$17,768,008
Airside Areas Total	13,035		\$2,802,525	\$17,768,008
Total: Landside and Airside Areas (A)	30,500		\$11,659,395	\$73,920,560
Add Contractor Indirect Costs: +15% of (A)			\$1,748,909	\$11,088,084
Total Cost w/ Contractor Indirect Costs (B)			\$13,408,304	\$85,008,644
Add Contractor Fee: 5% of (B)			\$670,415	\$4,250,432
Total Cost with Contractor Fee (C)			\$14,078,719	\$89,259,076
Add Contractor Contingency Fee: 5% of (C)			\$703,936	\$4,462,954
Add Design Fees (Architectural, Structural, Civil, M.E.P., Airport Planning): 8% of (C)			\$1,126,298	\$7,140,726
TOTAL PROJECT COST: PHASE 2			\$15,908,953	\$100,862,756

Source: SH&E Analysis

Exhibit 4-42: ROM Cost Analysis, Phase 3: Long-Term (10-20 years)

Area Description	Area (S.M.)	USD/S.M.	Cost (USD)	
			Rounded	Cost (TTD)
Landside Areas	1,281	\$86	\$110,166	\$698,452
Administration/Mezzanine Offices	486	\$970	\$471,420	\$2,988,803
Main Cargo Processing Facility	2,490	\$970	\$2,415,300	\$15,313,003
Landside Areas Total	4,257		\$2,996,886	\$19,000,259
Airside Areas				
Additional Apron for Aircraft Parking	0	\$215	\$0	\$0
Airside Areas Total	0		\$0	\$0
Total: Landside and Airside Areas (A)	4,257		\$2,996,886	\$19,000,259
Add Contractor Indirect Costs: +15% of (A)			\$449,533	\$2,850,039
Total Cost w/ Contractor Indirect Costs (B)			\$3,446,419	\$21,850,297
Add Contractor Fee: 5% of (B)			\$172,321	\$1,092,515
Total Cost with Contractor Fee (C)			\$3,618,740	\$22,942,812
Add Contractor Contingency Fee: 5% of (C)			\$180,937	\$1,147,141
Add Design Fees (Architectural, Structural, Civil, M.E.P., Airport Planner): 8% of (C)			\$289,499	\$1,835,425
TOTAL PROJECT COST: PHASE 3			\$4,089,176	\$25,925,378

Source: SH&E Analysis

4.4 MRO INFRASTRUCTURE DEVELOPMENT REQUIREMENTS

4.4.1 Aircraft Maintenance Requirements for the Regional Fleet

In the previous phase of this project, SH&E conducted extensive analysis of the MRO business and developed estimates of aircraft maintenance for requirements for airline fleets in the Americas and the Caribbean. For details of the maintenance requirements, see the Task 2 Report: “Market Assessment and Preliminary Recommendations.”

4.4.2 Overview of Required MRO Facility Components

Based on SH&E’s Task 2 analysis and additional research, the proposed MRO facility should consist of the following:

- An aircraft maintenance hangar to house up to three (3) narrow-body aircraft
- An aircraft parking apron for between four (4) and six (6) narrow-body aircraft
- The appropriate administrative facilities for personnel
- The appropriate workshop facilities
- Plans for future addition of wide-body aircraft maintenance facilities

SH&E also recommends the addition of the following items:

- An engine run-up/testing facility
- General Service Equipment (GSE) storage area
- Provision for future wide-body apron parking (which can also be used for any type of Remote Over-Night (RON) positions in case of airport capacity issues at the passenger terminal
- Provision of correct entrance taxiway location and design
- Appropriate facilitation for facility roadway access

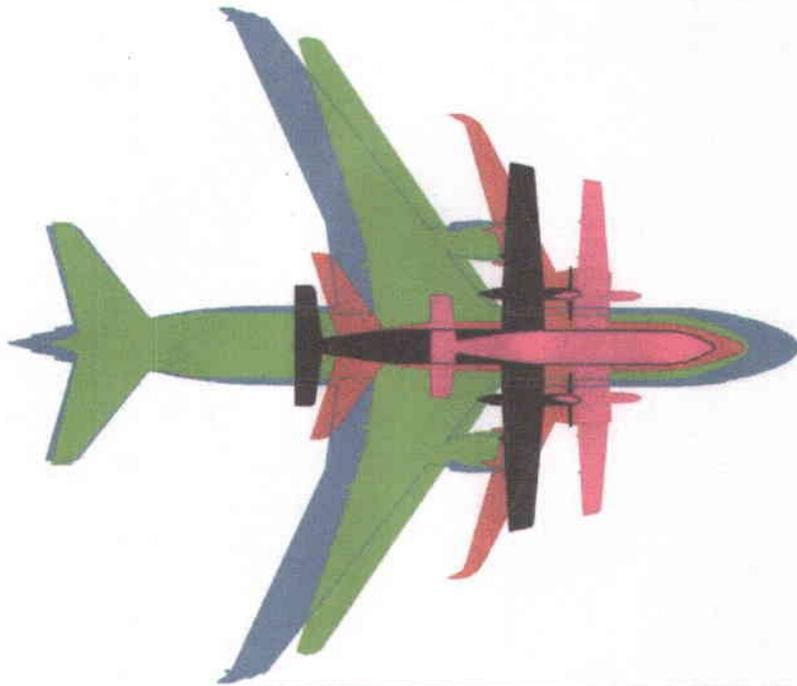
4.4.3 MRO Design Considerations and Assumptions

In the case of the MRO facility, several other factors such as tail heights and fuselage lengths were also considered to finalize the design, especially since the facility location is close to the airport’s runway environment.

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Exhibit 4-43 depicts and highlights the key elements of each subsequent airplane that was used to determine the MRO design. As noted in SH&E's Task 2 report, a large percentage of aircraft operating in the fleets of carriers that provide service throughout the Caribbean Region primarily consist of newer Boeing 737 aircraft (narrow-body B737NG's) and 767 (wide-body) normal line-aircraft. In addition, considering that the MRO and maintenance facilities may see other wide-body aircraft in the future, the design aircraft selected were: the McDonnell-Douglas MD-11 for its highest tail height, longer fuselage length and the largest wingspan contained within ICAO Code D standards group; the Boeing B767-300 for the longest wide-body fuselage length expected to be used at the airport for MRO maintenance facility design in the future; and, the Boeing B737-700W with the largest wingspan of the 737NG generation which is within the ICAO Code C standards and was used to design the correct MRO hangar facility sizing. Additionally, the Boeing 737-900 (also an ICAO Code C aircraft) has the longest fuselage length of the B737NG aircraft and was thus used to determine a large portion of longitudinal length of the aircraft maintenance hangar.

Exhibit 4-43: Aircraft Comparisons and Important Facility Design Data



		B737-700W	B767-300	MD-11	Dash-8 Series 100	Dash-8 Series 400
General						
FAA Airplane Design Group		III	IV	IV	III	III
ICAO Code Letter		C	D	D	C	D
Main dimensions						
Overall length	(m)	33.64	54.94	61.62	22.25	32.63
Wing span	(m)	35.79	47.57	51.99	25.91	28.42
Tail height, min	(m)	12.45	15.39	17.31	-	-
Tail height, max	(m)	12.67	16.03	17.93	-	-
Wheel base	(m)	12.60	22.76	24.61	7.95	13.94
Nose to nose gear	(m)	4.09	4.53	8.50	1.63	1.88
Nose to main gear center	(m)	16.69	27.29	33.11	9.78	15.82
Cockpit to main gear center	(m)	14.20	25.03	31.10	6.88	12.33
Main gear wheel span	(m)	6.99	10.90	12.57	8.49	9.55
Outer engine span	(m)	12.03	18.64	19.41	11.83	12.29
Turning characteristics						
Nose gear angle, max	(deg)	75.0	61.0	67.0	58.0	88.0
Nose gear turning radius, min	(m)	13.04	26.02	26.74	9.37	16.03
Outer wing turning radius, min	(m)	31.58	50.30	54.04	22.33	29.25

Source: SH&E Analysis

With the exception of the B737-700W, the B767-300 and the MD-11 are categorized by the ICAO Aerodrome Design Manual, Part 1 - Runways as a code letter "D". A code letter "D" includes aircraft with wingspans of 36 m up to but not including 52 m. As such, the taxiway and taxilane areas of the MCO facility were designed to ICAO Code D standards (See Exhibit E-4 in the Appendix).

4.4.4 MRO Facility Design

The MRO Facility Design is comprised of the following components which are based on all ICAO recommended standards and the aforementioned design considerations (See Exhibit 4-44 and Exhibit 4-45 for the detailed layout of the MRO facility):

- **One (1) Aircraft Maintenance Hangar:** capable of housing three (3) narrow-body B737-700W aircraft, representing the largest wingspan of the B737NG group with 35.79 meters. The facility can also handle B737-900 aircraft which have the longest fuselage length of the B737NG group with a length of 42.11 meters. The facility also includes workshop space that comprises 1,850 square meters (as designated by the aircraft-formed internal lines inside the rectangular hangars in Exhibit 4-45).

Total Size: 6,760 square meters.

- **Aircraft Maintenance Facility Apron:** Comprising One (1) ICAO Code D Taxilane, Two (2) Aircraft Parking Areas and One (1) Engine Test Facility: The southern apron parking area is capable of housing four (4) narrow-body B737-700W aircraft or up to five (5) Dash-8 aircraft. This area is also designed to contain the MD-11 as this aircraft has the highest tail height in the ICAO Code D grouping. The position of the MD-11 and the MRO facility as whole ensures that there are no aircraft tail penetrations to the ICAO Obstacle Clearance Surfaces, more specifically the Transitional Surface which slopes upward and outward at 14.3% from the ICAO designated Runway 10-28 Runway Strip. The north aircraft parking area is comprised of two (2) additional B737-700W parking positions which can be utilized interchangeably with all other B737NG aircraft (this area can also be used for over-flow parking). The ICAO Code D taxilane's width was determined by using 36 meters of obstacle clearance from both sides of the centerline, therefore constituting a total width of 72 meters. The apron also includes an engine run-up/test facility, which is standard for most aircraft maintenance facilities and also consists of the future portion of the proposed later phase improvements.

Total Size: 39,750 square meters.

- **One (1) Entrance Taxiway:** designed in accordance with ICAO Code D standards and connecting to Taxiway 'A', taking into consideration that the taxiway width is based on a total of 23 meters to ensure that longer wheelbase aircraft can utilize the facilities.

Total Length and Size: 198.18 meters and 10,712 square meters.

- **One (1) Parallel Taxiway 'A' Extension:** designed in accordance with ICAO Code E standards and is an optional lengthening of Taxiway 'A' to minimize back-taxiing and bottlenecks on Runway 10-28 or the parallel taxiway, and to ensure an efficient connection route to the Runway 28 approach end if necessary. SH&E recommends that this portion of the proposed project not be included until the Airport Authority decides when a full length parallel taxiway will be needed.
Total Length and Size: 422.70 meters and 28,520 square meters.
- **One (1) Automobile Parking Facility:** design based on internationally accepted parking space requirements of 4.8 meters x 2.4 meters and a possible 250 employee parking spaces with the appropriate dual carriage way with a standard width of 7.6 meters.
Total Size: approximately 7,200 square meters.
- **One (1) Administration Office Facility:** design based on the National Institute of Building Sciences' 'Aviation Hangar' documentation (McLaughlin, 2009) recommended spacing practices for aircraft maintenance facility design of approximately 23.2 square meters (250 square feet) per employee. Based on a total estimate of 100 employees the total amount of space needed is 2,320 square meters. The facility in the design depicted in Exhibit 4-45 encompasses 2,400 square meters (rounded).
Total Size: approximately 2,400 square meters.
- **One (1) GSE Storage Facility:** designed based on the potential necessity to house GSE inventory for aircraft maintenance facility aircraft servicing.
Total Size: approximately 1,280 square meters.
- **One (1) Future Aircraft Maintenance Hangar:** designed to house one (1) wide-body aircraft and one (1) narrow-body aircraft. The wide-body aircraft used in the layout is the B767-300 which is based on the longest fuselage length in ICAO Code D, giving the facility a total longitudinal length of 105 meters and a width of 100 meters. The facility can also house a B737-700W narrow-body aircraft and up to four (4) Dash-8-100 or 200 aircraft. This facility size has been used by airport such as Hong Kong International Airport, where a 10,000 square-meter facility holds the same type of aircraft and includes all the necessary work shop spaces (CASL, 2009).
Total Size: approximately 10,500 square meters.
- **One (1) Future Aircraft Parking Apron:** located on the south side of the apron. This area is a continuation of the first phase of construction and will be able to accommodate up to three (3) wide-body aircraft and up to five (5)

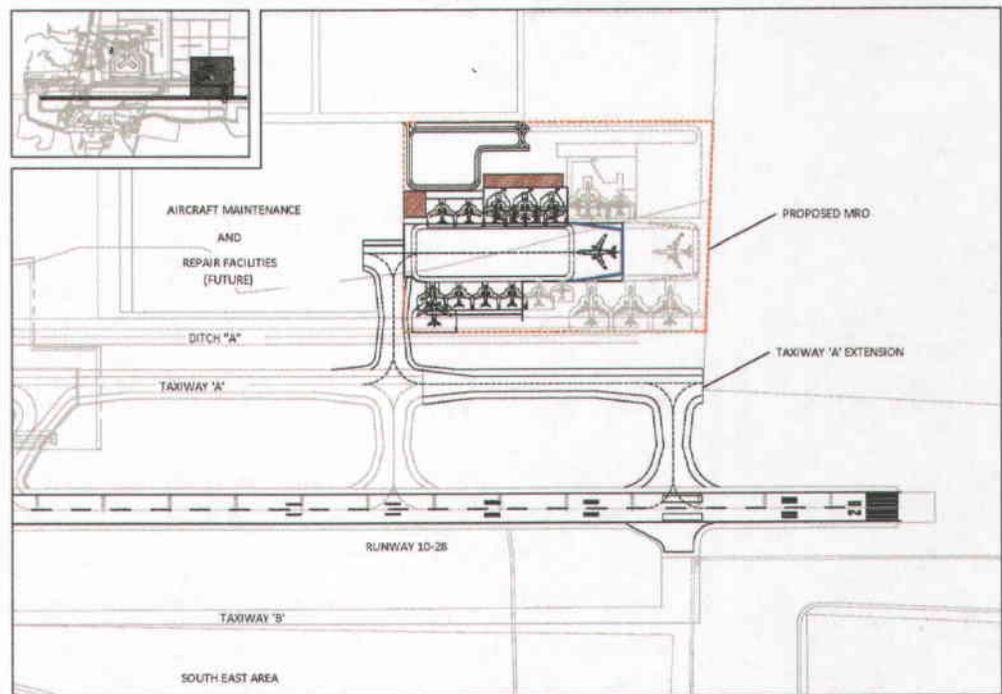
narrow-body aircraft.

Total Size: approximately 14,500 square meters.

- **Future Aircraft Maintenance Taxilane Extension:** This will ensure that the ICAO Code D taxilane is extended further east to accommodate the future aircraft parking apron and the additional wide-body aircraft maintenance facilities. This extension will require the relocation of the 1st phase engine testing facility to the east.

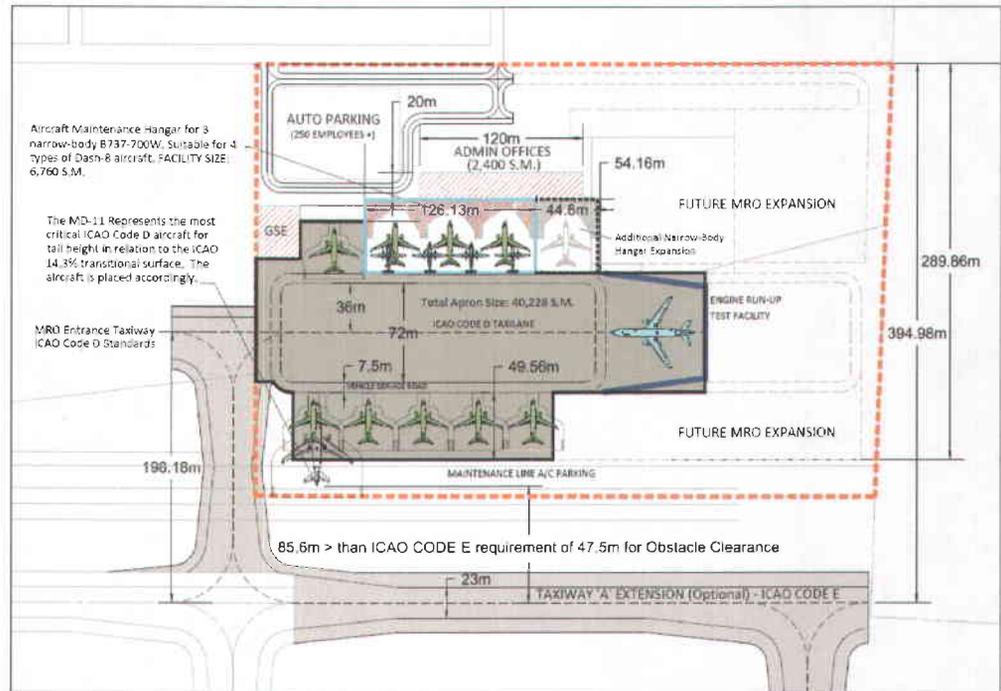
Total Size: approximately 10,000 square meters.

Exhibit 4-44: MRO Facility Location



Source: SH&E Analysis

Exhibit 4-45: MRO Facility Detail



Source: SH&E Analysis

4.4.5 MRO Costing and Phasing

SH&E's MRO costing analysis is based on research of similar projects and their associated costs conducted within the last two years in close vicinity to Trinidad and Tobago. Prices were also based on recent project costs obtained from a 3rd Party Cargo Developer used in costing analyses at Miami International Airport. Prices were adjusted according to normal contingency rates and design fees used within the aviation construction industry. Original pricing was conducted in US FY 2010 dollars and were converted to 2010 Trinidad and Tobago Dollars (TTD) using the most current exchange rate according to the International Monetary Fund (IMF) of 1 USD = 6.34 TTD. The total rounded rough-order-of-magnitude (ROM) cost for the Short Term Phase 1 was calculated as \$181,587,700 TTD (\$28,641,600 USD), while the Long Term Phase 2 ROM Cost was calculated as \$164,352,500 TTD (25,923,100 USD). The Total Projected cost for the full MRO facility build for the forecast period is estimated at \$345,940,300 TTD (\$54,564,700 USD). The following figures (Exhibit 4-46 and Exhibit 4-47) consist of a breakdown of the facility costs:

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Exhibit 4-46: ROM Cost Analysis, Phase 1 -- Short Term (2-5 years)

Area Description	Area (S.M.)	USD/S. M.	Cost (USD) Rounded	Cost (TTD)
Landside Areas				
Trucking and Automobile Parking	7,200	\$86	\$620,000	\$3,930,800
Administration Offices	2,400	\$970	\$2,328,000	\$14,759,520
Aircraft MRO Maintenance Facility	6,760	\$970	\$6,557,200	\$41,572,648
Automobile Access Loop Road	4,200	\$86	\$361,200	\$2,290,008
Landside Areas Total	20,560		\$9,866,400	\$62,552,976
Airside Areas				
Aircraft Maintenance Facility Apron, Taxilane,	39,750	\$215	\$8,546,250	\$54,183,225
GSE Staging Area	1,280	\$215	\$275,200	\$1,744,768
Entrance Taxiway	10,712	\$215	\$2,303,080	\$14,601,527
Engine Test Facility			\$2,000,000	\$12,680,000
Airside Areas Total	51,742		\$11,124,530	\$70,529,520
Total: Landside and Airside Areas (A)	72,302		\$ 20,990,930	\$ 133,082,496
Add Contractor Indirect Costs: 15% of (A)			\$3,148,640	\$19,962,374
Total Cost w/ Contractor Indirect Costs (B)			\$24,139,570	\$153,044,870
Add Contractor Fee: 5% of (B)			\$1,206,978	\$7,652,244
Total Cost with Contractor Fee (C)			\$25,346,548	\$160,697,114
Add Contractor Contingency Fee: 5% of (C)			\$1,267,327	\$8,034,856
Add Design Fees (Architectural, Structural, Civil, M.E.P., Airport Planner): 8% of (C)			\$2,027,724	\$12,855,769
TOTAL PROJECT COST: PHASE 1			\$28,641,599	\$181,587,739

Source: SH&E Analysis

Exhibit 4-47: ROM Cost Analysis, Phase 2 -- Long Term (5-15 years)

Area Description	Area (S.M.)	USD/S. M.	Cost (USD) Rounded	Cost (TTD)
Landside Areas				
Trucking and Automobile Parking	3,600	\$86	\$309,600	\$1,962,864
Administration Offices	2,400	\$970	\$2,328,000	\$14,759,520
Aircraft MRO Maintenance Facility	10,500	\$970	\$10,185,000	\$64,572,900
Automobile Access Loop Road	3,500	\$86	\$301,000	\$1,908,340
Landside Areas Total	20,000		\$13,123,600	\$83,203,624
Airside Areas				
Aircraft Maintenance Facility Apron, Taxilane,	10,500	\$215	\$2,257,500	\$14,312,550
Aircraft Parking - South Area Extension	14,500	\$215	\$3,117,500	\$19,764,950
Engine Test Facility Relocation			\$500,000	\$3,170,000
Airside Areas Total	25,000		\$5,875,000	\$37,247,500
Total Landside and Airside Areas (A)	45,000		\$ 18,998,600	\$ 120,451,124
Add Contractor Indirect Costs: 15% of (A)			\$2,849,790	\$18,067,669
Total Cost w/ Contractor Indirect Costs (B)			\$21,848,390	\$138,518,793
Add Contractor Fee: 5% of (B)			\$1,092,420	\$6,925,940
Total Cost with Contractor Fee (C)			\$22,940,810	\$145,444,732
Add Contractor Contingency Fee: 5% of (C)			\$1,147,040	\$7,272,237
Add Design Fees (Architectural, Structural, Civil,			\$1,835,265	\$11,635,579
TOTAL PROJECT COST: PHASE 2			\$25,923,115	\$164,352,547

Source: SH&E Analysis



5

**TASK 4 – FINANCIAL AND CONCESSION
STRUCTURING (CONFIDENTIAL)**

6

**TASK 5 – STRATEGIC MARKETING PLAN FOR
ESTABLISHING A 3RD PARTY MRO
(CONFIDENTIAL)**

7

TASK 6 – TENDER DOCUMENTS**7.1 INTRODUCTION**

SH&E has been retained by the Airports Authority of Trinidad and Tobago (AATT or “the Client”) to conduct a feasibility study on the proposed Regional Air Cargo and Aircraft Maintenance Hub project at Piarco International Airport (“Piarco” or “the Airport”). This study has been funded by a grant from the United States Trade and Development Agency (USTDA).

This study has been divided into seven tasks:

1. Current and Planned Airport Commercial Assets and Capacities
2. Market Assessment and Preliminary Recommendations for Commercialization Opportunities
3. Infrastructure Requirements for Commercial Development
4. Financial and Concession Structuring
5. Strategic Marketing Plan
6. Tender Documents
7. Final Report

Previous working papers related to this grant covered the evaluation of potential commercialization opportunities and the selection of two opportunities to pursue. One of these opportunities, the cargo hub, does not require significant infrastructure investment or a tender process. However, the second selected opportunity, a third party Maintenance, Repair, and Overhaul (MRO) base, necessitates a tender process to select a Joint Venture (JV) partner.

The focus of this Task 6 report is to provide AATT with the documents necessary to conduct the tender process for the third party MRO base. A successful tender process requires the following three documents:

- A Request for Proposals
- A draft concession agreement
- A methodology for evaluating submitted proposals

A Request for Proposals (RfP) summarizes the opportunity, provides background information and figures, discusses the terms of the proposed agreement, and outlines the proposal submission process. The RfP for the third party MRO base is provided

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in Appendix G. This RfP is complete except for the following two items, which must be completed by AATT prior to releasing the document:

- Contact information for the RfP contact person at AATT
- The location of the pre-proposal conference

These items are currently highlighted in yellow to indicate they must be modified before RfP release.

The RfP document includes the following sections:

1. Executive Summary
2. Description of the Current and Proposed MRO Centers
3. Market Opportunity and Advantages
4. Market Assessment
5. Overview of Piarco International Airport
6. Trinidad and Tobago Economic Overview
7. Proposed Concession Structure and Financing
8. Proposal Process
9. Proposal Submission
10. Evaluation Criteria

The first 6 sections present background information gathered and created during previous tasks of this study. Section 7 proposes the structure of the concession as a lease. SH&E has recommended that GORTT construct all landside and airside infrastructure necessary for the joint venture. As such, the concession agreement will be a multi-year lease for the maintenance facility and include an equity sharing arrangement. SH&E recommends a 20-year lease with fixed annual payments and a success-sharing fee payment dependent upon aircraft throughput.

Section 8 outlines the timeline for the tender process including a pre-proposal conference, a proposal submission deadline, and a date for proposal selection. The entire tender process is proposed to begin on August 31, 2011 with the advertisement of the RfP and ends with the executed concession agreement on December 14, 2012. Section 9 presents the preferred contents and format of proposals.

Section 10 explains the methodology for selecting a successful proposal. Seven different evaluation criteria are described with their corresponding point values. The maximum number of points is 100.

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The RfP also includes two appendices. Appendix 1 includes renderings of the future facility as presented by SH&E in the Task 3 working paper.

Appendix 2 of the RfP includes a sample lease agreement. The lease covers a 20-year term and complies with local and national regulations regarding lease structure.

With these documents, SH&E has provided AATT with all of the necessary items to conduct a successful tender for a third party MRO partner.

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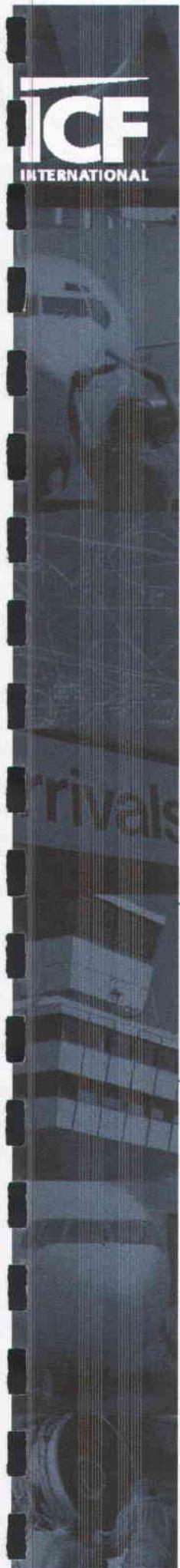


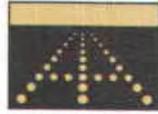
SH&E

an ICF International Company



**Appendix B:
AATT POLICY AND PROCEDURES FOR TENDERS
AND AWARD OF CONTRACTS**





AIRPORTS
AUTHORITY
OF TRINIDAD & TOBAGO

AIRPORTS AUTHORITY OF TRINIDAD AND TOBAGO

Policy and Procedures for Tenders and Award of Contracts for Goods Services and Works

Amended and approved by the Board of the
Airports Authority of Trinidad and Tobago
at its Meeting held on January 06, 2009

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INTERNATIONAL

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1.0 DEFINITIONS:

In this document, the following terms shall have the respective meanings ascribed below:

“Authority”	Airports Authority of Trinidad and Tobago.
“Board”	means the Board of the Airports Authority of Trinidad and Tobago
“Chairman”	the Chairman of either of the Committees established by the Board.
“Committee”	the Committee charged with all matters relating to tenders within its financial authority.
“Contractor”	means a person, firm or company included on the Authority’s register of approved contractors or specifically approved by the Board.
“Corporate Secretary”	means the Secretary of Airports Authority of Trinidad and Tobago.
“Goods”	means all materials, parts, products, implements, tools, devices, machinery, equipment, vehicles, plant and articles of all kinds
“Relative”	means spouse (including common law spouse), father, mother, brother, sister, half-brother, half-sister, son, daughter, son-in-law, daughter-in-law, parent(s) of a spouse as well as foster and step relationships of every degree.
“Relevant Division”	means the division requesting and/or executing the procurement of goods, services and works.
“Secretary”	means the Secretary to the specific Committee

“Services”	means assistance in doing things or getting things done and includes administrative, engineering, financial, marketing, airport operations, technical, professional and consultancy services.
“Tender”	means an offer or quotation or group of offers or quotations made by a Contractor(s) in response to a request by the Authority to conduct specified works or services or to supply goods. This also includes requests for proposals.
“Tender Documents”	includes scope of works, specifications and drawings, instructions to tenderers, bills of quantities or price schedules, draft items and conditions of contract.
“Tenders Rules”	means these policies and procedures and any modification or amendment thereof;
“VAT”	means Value Added Tax in accordance with the Act No. 37 of 1989 of the Laws of Trinidad and Tobago.
“Works”	means building, engineering, construction and maintenance works of all kinds.

In this document words importing the singular only also include the plural and the masculine includes the feminine and vice-versa as the context requires.

All values specified in this document are exclusive of Value Added Tax (VAT). However, all approval limits are subject to VAT.

2.0 POLICY STATEMENT

The Authority in the fulfillment of its mandate will procure goods, services and works in accordance with the procedures set forth below which are designed to encourage competition, economy, efficiency and transparency.

The Board may establish Tender Committees to do the following:

- a. Invite and consider, and either directly procure goods and services necessary for the Authority's efficient functioning or alternatively make recommendations for the procurement of goods or the undertaking of services or works necessary for the carrying out of the functions of the Authority; and
- b. Either dispose directly of unserviceable or surplus goods or property abandoned on the Authority's estates or make recommendations to dispose of unserviceable or surplus goods belonging to the Authority or vehicles deemed to be abandoned on the estates of the Authority. .

3.0 CONSTITUTION, POWERS AND FINANCIAL AUTHORITY OF TENDER COMMITTEES

The Board may establish the following Tender Committees:

- 3.1 The Board Tenders Committee which shall consider tenders and recommend to the Board the award of contracts exceeding TT\$500,000.00.
 - a. The Board Tenders Committee shall comprise of four members of the Board not including the Chairman of the Airports Authority. The Committee's Chairman shall be selected by the Board.
 - b. The Corporate Secretary or in his absence his designate shall be the Secretary of the Board Tenders Committee.
- 3.2 The Management Tenders Committee which shall consider tenders and award contracts not exceeding TT\$500,000.00.
 - a. The Management Tenders Committee shall comprise of the following:
 - (i) The General Manager as Chairman
 - (ii) The Deputy General Managers
 - (iii) The Corporate Secretary
 - (iv) The Financial Controller

b. The Corporate Secretary or in his absence his designate shall be the Secretary of the Management Tenders Committee.

3.3 The Board delegates its power to invite, consider, accept or reject tenders not exceeding \$100,000.00 in accordance with these rules as follows:

(i) General Manager - Contracts not exceeding TT\$100,000.00

(ii) Deputy General Managers - Contracts not exceeding TT\$50,000.00.

(iii) Managers - Contracts not exceeding TT\$20,000.00

3.4 The Committees and the persons prescribed with financial authority to award contracts shall not for the purpose of giving themselves authority to act subdivide the quantity of goods to be supplied or services and works to be undertaken into two or more portions so that the values of the subdivided portions falls within their stipulated financial authority.

4.0 **PROCEEDINGS**

4.1 Each of the Committees shall meet at least once a month and additionally at such times as its Chairman may request.

4.2 At meetings of the Committees, a quorum shall be as follows:

(i) Board Tenders Committee - 3 Members

(ii) Management Tenders Committee - 4 Members

4.3 The notice and agenda for meetings shall be circulated at least five working days before the time fixed for such meetings.

4.4 The General Manager and the Deputy General Manager, Corporate Services shall be required to attend all meetings of the Board Tenders Committee but shall have no right to vote.

4.5 Where a matter is before any Committee for consideration, the appropriate Deputy General Manager or Manager may be invited to the meeting for the purpose of providing information where clarification is required.

4.6 In the absence of the Chairman for any Committee meeting or part thereof, the Committee may elect from among the members present a person to perform the function of Chairman.

- 4.7 The decisions of the Committees shall be by a majority of votes and for that purpose the Chairmen shall have both an original and a casting vote.
- 4.8 Only in exceptional cases as determined by the Chairman shall decisions be taken by round robin via the circulation of papers. The comments of each member shall be reflected in one document in relation to each matter so dealt with.
- 4.9 Minutes of the meeting of the Committees shall be recorded and circulated at the next ensuing meeting for confirmation/certification.
- 4.10 The confirmed decisions and minutes of the Committees must be submitted monthly to the next ensuing meeting of the Board.

5.0 DUTIES OF THE SECRETARY OF THE COMMITTEES

The Secretary of each Committee shall have the following responsibilities:

- a. Provide guidance and advice to the Committee in order to promote adherence to these policies and procedures;
- b. Prepare and circulate notices and agendas of meetings to members at least five working days before the fixed time for such meetings or as directed by the Chairman from time to time;
- c. Maintain a register of all tenders and prepare a monthly report to be distributed to members of the committee summarizing the tenders processed for the month under review;
- d. Prepare minutes of each meeting in proper form, which shall be confirmed by that Committee at the next ensuing meeting;
- e. After an award of contract has been made, and an unsuccessful tenderer requests information on the award, the Secretary shall be authorized to give the name of the awardee and the value of the award. The Authority shall use its discretion in advising the Secretary on the amount of information to be disclosed to unsuccessful tenderers;
- f. Submit to the Committee each month, project reports on the progress of contracts awarded by the relevant Committees;
- h. The Secretary shall be responsible for ensuring that all contractors that supply goods to, and undertake services and works for the Authority comply with the requirements stated in the General Terms and Conditions of Contract;

- i. Advise the appropriate head of division or department of the relevant decisions taken at Tender Committee meetings.

6.0 CONFLICT OF INTEREST

6.1 A member of the Board Tenders Committee or the Management Tenders Committee who:

- (i) Is a member of a company or other body; or
- (ii) Is a partner of a firm, or partnership; or
- (iii) Is employed by a company, other body, firm or partnership; or
- (iv) Has a financial interest in a company, other body, firm or partnership; or
- (v) Has a relative

that has submitted an offer for the supply or purchase of goods or the undertaking of works or services or who has responded to a request for proposals which is the subject of consideration by one of the Committees, shall disclose the fact and shall not take part in the consideration or discussion of the offer, nor vote on any question concerning the offer.

6.2 All persons in the Authority empowered by law or delegated financial authority to award contracts are not precluded from placing tenders for the purchase of surplus or unserviceable goods, but where such disposal is by a method other than public tender, even where the conditions of 6.1 are met, either of the committees is empowered to refuse to grant an award to the member if, in the opinion of that committee, an appearance of impropriety is likely to arise.

6.3 A member of the Board, officer or employee of the Authority shall not enter into any contract for the supply of goods or the undertaking of any services or works for the Authority without the express approval of the Board.

6.4 Where papers are to be circulated under clause 4.9 above, the Chairman shall direct that the papers are not circulated to any person empowered by law and delegated financial authority to consider tenders and award contracts who through a declared interest is precluded from taking part in the consideration, discussion and voting on the matter.

7.0 INVITATION TO TENDER

7.1 Whenever goods, services and works are required to be supplied to or undertaken on behalf of the Authority the value of which is in

excess of \$100,000.00, the General Manager or the divisional head through the General Manager shall make a request to the relevant Committee to invite tenders. The request shall include the following:

- a. a justification for the project;
- b. scope of works/specifications in sufficient detail to ensure that responsive tenders are received;
- c. an estimate of the cost to be incurred for the project;
- d. the source of available funding;
- e. a justification for the form of tendering (sole, selective or public);
- f. the evaluation criteria and;
- g. a recommended evaluation team.

7.2 Prior to authorising an invitation to tender, the relevant Committee shall

- a. ensure that the activity is consistent with the Authority's mandate;
- b. approve the form of tender to be used.

7.3 The invitation to tender shall be signed by the Corporate Secretary or his designate and shall contain:

- a. a precise description of the goods required or the scope of services or works to be undertaken and shall whenever necessary, also contain the place where and time when additional information relating thereto can be obtained;
- b. the form or manner in which the tender is to be submitted;
- c. the date and time by which the offer is to be submitted;
- d. the place where and the manner in which the offer is to be submitted;
- e. instructions relating to essential documents which must accompany the tender including in the case of a local entity, income tax and value added tax certificates and in case of any other business entity the appropriate certificate of registration to establish the legal identity of the tenderer;
- f. Instructions with respect to the payment of tender fees and deposits and performance deposits or bonds;
- g. the date and time for the opening of tenders; and
- h. any other essential matter.

7.3.1 All invitations to tender for the procurement of goods and the undertaking of services and works on behalf of the Authority shall be issued from the office of the Corporate Secretary. For this purpose all completed tender documents should be submitted to the office of the Corporate Secretary together with the invitation to tender.

7.4 **CONTRACTOR SELECTION**

- 7.4.1 Where the selective form of tendering is used, such invitations shall be restricted to the Authority's list of approved contractors. A copy of the tender invitation, the tender documents and a listing of contractors to be invited shall be forwarded to the office of the Corporate Secretary for issuance where the tenders are above TT\$100,000.00.
- 7.4.2 The relevant division shall be responsible for the selection of contractors to be invited to tender and the number of invitees shall be determined as follows:
- (i) Tenders greater than TT\$100,000.00 a minimum of seven (7) contractors;
 - (ii) Tenders less than TT\$100,000.00 a minimum of three (3) contractors.
- 7.4.3 The number of invitees shall only be reduced where there exists fewer than the specified number of contractors on the Authority's list of approved contractors for the particular category of goods, services or works.
- 7.4.4 Where any category has more than the specified number of approved contractors, every effort shall be made to ensure that all the approved contractors, are given by rotation, equal opportunity to tender.
- 7.6 PRE-TENDER MEETINGS/SITE VISITS**
- 7.6.1 The Authority may arrange mandatory pre-tender meetings/site visits where it considers it to be appropriate. Invitation to such meetings/site visits shall be extended in the invitation to tender. A subsequent mandatory pre-tender/site visit may be arranged prior to the date for the submission of tenders. Invitations to such meetings/site visit shall be extended to all invited tenderers in the case of selective tendering or by public notice in the case of open or public tendering.
- 7.6.2 At such mandatory meetings/site visits, a representative of the relevant division shall be in attendance to clarify issues raised as well as those issues which in the opinion of the Authority require clarification. The meeting shall be minuted and the minutes shall be transmitted to the all tenderers whether in attendance or not.
- 7.6.3 Where, the Authority considers it appropriate to arrange a mandatory pre-tender meeting/site visit, **only** tenderers in attendance shall be eligible to submit a tender.
- 7.7 Where any variation in the scope of works or in any part of the

tender documents is required, each tenderer shall be notified in writing before the closing date for the submission of the tender and where necessary all tenderers shall be further notified in writing of a postponement of the closing date for the submission of tenders.

- 7.8 All requests for clarification must be submitted in writing to the Authority. The Authority shall respond to all written requests prior to the period specified in the tender document as the deadline for submission of the tenders. All tenderers will be sent a copy of all written requests received by the Authority for clarification and the responses given to the requests.

8.0 TENDER FEE/TENDER DEPOSIT OR BOND

- 8.1 The Authority may require tenderers to pay non-refundable tender fees, in such sums as may be determined by the relevant Committee, prior to the collection of tender documents.
- 8.2 The Authority may require tenderers who wish to submit a tender to deposit with the Authority such sums as may be determined by the relevant Committee, prior to the submission of tenders.
- 8.3 The Authority may forfeit any sum deposited upon the occurrence of the following:
- a. the person whose tender is accepted fails or refuses to enter into a formal contract;
 - b. the person submitting a tender withdraws same.

9.0 SUBMISSION OF TENDERS

- 9.1 A Tender shall be made on the appropriate form specified in the tender documents and shall be signed by the person submitting the tender or in the case of a business entity, a duly authorised officer and shall be enclosed in a sealed envelope addressed to the Secretary of the relevant Committee.
- 9.2 Every tender shall where applicable be accompanied by valid Income Tax and VAT Certificates both confirming that the tenderer has complied with the provisions of and discharged his or its obligations under the Income Tax and VAT Tax legislations.
- 9.3 Any alteration or erasure in any tender shall be initialed by the person making the offer or, in the case of a business entity, a duly authorised officer thereof.
- 9.4 The relevant Committee may reject any offer which does not comply with any of the provisions of this clause.

10.0 TENDER BOX

- 10.1 The Authority shall keep, at its office, specially constructed boxes in which all Tenders shall be placed. The boxes may also be kept in such other places as may be deemed necessary or appropriate by the Corporate Secretary.
- 10.2 Each box shall be marked "Tender Box", and shall conform to specifications that provide adequate capacity and ensure the security of the documents placed in the box.
- 10.3 Each box shall have two independent locks that control the opening of the box, the key for one lock shall be kept by the Corporate Secretary and the other key shall be kept in the custody of the General Manager.
- 10.4 The Corporate Secretary shall be custodian of all spare keys.
- 10.5 Where a box has been assigned for the receipt of tenders on any matter, it shall be marked so that it may be readily identifiable by persons delivering tenders.

11.0 RECEIPT OF TENDERS

- 11.1 A tender shall be placed in a sealed envelope and deposited in the appropriate tender box before the time and closing date for submission.
- 11.2 Subject to the clause 11.3, a tender is regarded as having been received when it has been deposited in the tender box.
- 11.3 Where tenders cannot be placed in the tender box due to the size of the tender document, or where they are posted from overseas, such tenders must be lodged with the Secretary of the Committee or his designate who shall record the name of the tenderer, the date and time of delivery and the signature of the person delivering the tender where practicable and issue this information to all tenderers.
- 11.4 When the time and date for submission of tenders have expired, the box or boxes assigned shall be sealed by the Corporate Secretary or in his absence his nominee, so that no further tenders may be inserted, and the box or boxes shall be removed to such secure place, as may be designated by the Corporate Secretary from time to time, until they may be opened.
- 11.5 **Late Submissions**

All tenders submitted late shall be rejected and the tenderers shall be officially informed in writing by the Secretary of the Committee.

Each tenderer is fully responsible for ensuring that his tender submission meets the stipulated date and time. Any variation from the stipulated method of submission will be at the tenderer's risk.

12.0 WITHDRAWAL OF TENDERS

12.1 A tender may be withdrawn by a letter addressed to the Secretary of the relevant Committee and shall be signed by the person who submitted the tender or a duly authorised officer of the business entity that submitted the tender. Such withdrawal letter shall reach the Secretary before the date and time for submission of tenders.

12.2 The letter may be deposited in the assigned tender box or where it is addressed to the Secretary of the relevant Committee, that officer or his designate shall receive and sign for same, recording the time and date of receipt of the letter of withdrawal.

13.0 OPENING OF TENDERS

13.1 On the date and time fixed for the opening of tenders, the Secretary of the relevant Committee or his designate and the General Manager or his designate shall unlock the tender box and remove the tenders found therein.

13.2 The Secretary of the relevant Committee or his designate and the General Manager or his designate shall open the sealed tenders and shall cause a note to be taken of:

- a. the names of the tenderers
- b. the original and number of copies of each Tender
- c. the tender sums quoted
- d. the deposit receipt or bid bond if required
- e. such further information as the Board or either of the relevant Committee directs.

13.3 The tenders shall be placed in a safe place to the satisfaction of the Corporate Secretary and shall be kept there until they are delivered to the evaluation committee for consideration.

14.0 EVALUATION OF TENDERS

14.1 An Evaluation Committee as recommended and approved prior to the issuance of the Invitation to Tender shall be established to consider and evaluate the Tenders.

14.2 Where there is no significant difference in the quality of goods being offered or in the capacity to undertake the services or works

between competing tenderers, the lowest compliant tender shall be accepted by the Board. Where this is not the case, in selecting the tender to be accepted, the following shall be taken into account:

- a. For the consideration and evaluation of tenders for goods to be supplied:
 - (i) total contract price; and terms of payment;
 - (ii) evidence of reliability of performance;
 - (iii) any warranty or guarantee given;
 - (iv) maintenance or repair service provided
 - (v) delivery time;
 - (vi) compatibility with other goods used by the Authority including future economies of scale;
 - (vii) adequacy of stock of spares held in Trinidad and Tobago and/or accessibility of spares in general;
 - (viii) currency of payment and risk of price increases during a supply period; and
 - (ix) any other matter related to the quality and adequacy of the goods.

- b. For the consideration and evaluation of tenders to undertake services or works
 - (i) Such matters as listed at 14.2 (a) above as may be relevant
 - (ii) evidence of previous performance of similar services or works
 - (iii) technical skills, adequacy of supporting staff, management support systems, supporting financial and contractual arrangements available to the tenderer.
 - (iv) proposed execution strategy including schedule; and
 - (v) or any other matter related to the quality of the performance of the services and works

14.3 During the process of tender evaluation, if it is thought necessary, to convene a meeting with a tenderer to confirm the tenderer's technical, economic and human resource capabilities and to establish that the quoted price fully covers the scope of work outlined in the tender specifications, an appropriate minute of the meeting must be prepared representing the discussions and signed by both parties.

15.0 TWO ENVELOPE SYSTEM

15.1 Tenders may be invited requiring the tenderer to satisfy technical requirements before consideration is given to financial submissions. As such every tenderer shall be required to submit two (2) envelopes. Envelope 1 shall contain the technical proposals and

Envelope 2 shall contain the financial proposals.

15.2 Opening and Evaluation of Tenders by two *envelopes*

15.2.1 Only Envelope 1 shall be opened and forwarded via the Corporate Secretary to the appointed evaluation committee for a detailed analysis of all submitted technical proposals and for a recommendation to the appropriate financial authority as to which of the tenderers satisfy the technical capability or requirements of the project. The evaluation committee will also rank the tenderers by order of merit.

15.2.2 The evaluation committee shall consist of the members approved prior to the issuance of the tender.

15.2.3 Only Envelope 2, corresponding to Envelope 1 of the tenderers determined to capable by the appropriate financial authority shall be opened.

15.2.4 Envelope 2 of the tenderers not deemed capable shall be returned unopened to the tenderers by the Corporate Secretary or his designate.

15.2.4.1 Envelope 2 of the capable tenderers shall be evaluated to determine compliance and accuracy and the lowest evaluated tender may be recommended for acceptance.

15.2.4.2 The lowest evaluated tender may be recommended for acceptance.

16.0 ACCEPTANCE OF TENDERS

16.1 Where a tender has been accepted, the tenderer shall be notified in writing of its acceptance and in appropriate cases, of the requirement to enter into a formal contract with the Authority and provide security in the manner and to the extent as the Authority determines.

16.2 Unsuccessful tenderers shall be notified of the non-acceptance of their tenders.

17.0 FORM OF CONTRACT

17.1 A formal contract shall be in such form and shall contain such terms and conditions as the Authority may determine and shall specify inter alia whenever applicable:

a. A description of the goods to be supplied, or the services or

- works to be undertaken;
- b. The terms of payment.
- c. The price to be paid for the provision of such goods or the undertaking of such services or works.
- d. The period within which the matters contemplated by the contract are to be performed.
- e. Both the damages payable by the contractor for delay or non-completion of the contract within the period stipulated and the bonuses applicable for completion of contract before schedule.
- f. Provision for damages in the event of breach of such contract by the contractor.

17.2 The terms and conditions of contract shall be referred to and form part of any award.

17.3 Before work commences, every contractor is requested to produce (where applicable) evidence of workmen's compensation and such other insurance coverage as may be required for the duration of the contract.

18.0 EMERGENCIES

18.1 In cases of emergency where the safety of people, property, plant and equipment are in jeopardy or where the continuity of the Authority's operations demands that a contract be awarded, the Chairman of the Authority may authorise the General Manager, without inviting tenders to procure goods, services and works, the value of which does not exceed \$1,000,000.00.

18.2 Notwithstanding 18.1 above the following process shall be observed:

- a. within twenty four hours of the award of contract, an application seeking ratification of the action taken must be submitted to the Chairman of the relevant Committee or relevant financial authority. Such report must include:
 - i. a statement of the emergency circumstance that prevailed
 - ii. the Authority's estimate
 - iii. the actual cost and
 - iv. reasons why the particular Contractor was chosen.
 - v. the attempts made to convene the appropriate financial authority and the results of such attempts.
- b. applications for ratification of contracts awarded in an emergency shall be dealt with at the ensuing Committee Meeting.

19.0 NON COMPETITIVE PROCUREMENT

19.1 All contracts for the supply of goods or the undertaking of services or works must be awarded on the basis of competitive bidding except as provided hereunder:

- a. where goods are spares or replacement parts for equipment in use;
- b. where the purchase of similar type equipment already in use is more cost effective;
- c. where goods, services or works are available through a sole source or supplier;
- d. where the works to be carried out on a site where the employment of another contractor will hinder the progress of the works already being performed by the existing contractor, taking due account of the cost effectiveness if this approach is adopted;
- e. where the services or works are carried out by the contractor who is already in possession of relevant information and data and it would be more cost effective for such contractor to perform the required services or works; and
- f. in the case of emergency as described in clause 18 above.
- g. Critical or urgent works when the period for the completion of the tender process (from invitation to evaluation of tenders) would seriously jeopardise the progress of the work.
- i. Work normally performed by specialist contractors or where one contractor has earned a reputation through successful bidding and providing more efficient service and supervision than his competitors. As a matter of principle, in these cases, it is advisable to invite tenders on an annual basis in order to maintain the element of competitiveness.

19.2 To commence such jobs, the following must be done:

- a. A recommendation must be completed and submitted to the relevant committee or financial authority for approval;
- b. Such recommendation must include a description with the goods, services or works and a certification that the contractor is the only one possessing the necessary capabilities locally, or the particulars of the circumstances surrounding the recommendation of the contractor;
- c. The recommendation should also indicate that by comparison of the Authority's estimate the price appears reasonable.

20.0 VARIATIONS

20.1 Where a variation is proposed to a contract subsequent to the commencement of work which results from a change in scope,

change in specifications, change in method of performance or accelerating work performance, approval may be given by the relevant Committee after obtaining the relevant professional advice and ensuring that the funds are available before instructions to effect the variation are given to the contractor.

- 20.2 All requests for variations must be supported by documentation which states the following:
- a. the original contract price;
 - b. the previous cumulative revised contract price;
 - c. the current cumulative revised contract price;
 - d. the variation price;
 - e. percentage over-run to date;
 - f. the approved budgeted contract sum;
 - g. a detailed explanation of the circumstances giving rise to the variation;
 - h. approval of the Manager concerned.
- 20.3 Proposed variations in respect of contracts originally awarded by the General Manager shall be approved by the General Manager upon recommendation of the Deputy General Manager of the relevant division.
- 20.4 Variations proposed in respect of contracts originally awarded by a Committee shall be referred to the relevant Committee for approval.

21.0 DISPOSAL OF ASSETS

- 21.1 Where the General Manager determines that goods which are the property of the Authority are unserviceable or are surplus to the requirements of the Authority, the General Manager shall estimate the value of such property and shall refer the same to the relevant committee or financial authority for recommendation for disposal.
- 21.2 The Authority may sell and dispose of unserviceable or surplus goods by public auction or may adopt such other method of disposal as the Board Tenders Committee may recommend (sealed bids, dumping, destroying).
- 21.3 The Board may agree on the recommendation of the Board Tenders Committee that such surplus or unserviceable goods shall be:
- a. Donated to any Government Division, Youth Camp, Technical School, charitable institution or non-profit company or any similar body receiving public funds; or
 - b. Destroyed.
- 21.4 These Rules shall also apply to the disposal of assets.

21.5 A Member of the Authority's staff may be nominated by the Chairman on the advice of the General Manager to attend every sale of unserviceable or surplus goods and report through the General Manager to the Board the results thereof.

21.6 The proceeds of such sales less all expenses shall be deposited into the appropriate revenue item of the Authority's accounts.

22.0 CONFIDENTIALITY

Every person having an official duty or being employed in the work of the Committees shall regard and deal with all documents and information relating thereto as confidential.

23.0 IMPROPER INDUCEMENTS

Any person, firm, company partnership or employee or agent thereof who, with the intention of gaining any advantage or concession for himself or any other person, firm, company or partnership directly or indirectly, offers any member of a committee or officer of the Authority or any employee, agent or relative of such member, officer or employee, a gift of money or other thing, or improperly approaches such person with respect to any matter that is before any committee or financial authority concerning any tender or contract shall be disqualified from the tender process or award of contract.

24.0 ADOPTION OR AMENDMENT OF RULES

These Rules may be adopted, rescinded or amended by resolution of the Board, due notice having been given of the proposal to adopt, rescind or amend these Rules.

25.0 PROCUREMENT OF GOODS, SERVICES AND WORKS NOT EXCEEDING \$100,000.00 IN VALUE

25.1 Subject to clauses 17 and 18 above, all procurement of goods, services and works not exceeding \$100,000.00 must be done on a competitive basis and in accordance with the Authority's purchasing policies and procedures.

25.2 A Manager is delegated financial authority to invite tenders and award contracts up to the sum of \$20,000.00 in accordance with his financial authority and shall submit to the General Manager on a monthly basis a summary of these tenders received and contracts

awarded.

25.3 A Deputy General Manager is delegated financial authority to invite tenders and award contracts up to the sum of \$50,000.00 and shall submit to the General Manager on a monthly basis, a summary of these tenders received and contracts awarded.

25.4 The General Manager is delegated financial authority to issue tenders and award contracts up to the sum of \$100,000.00 in accordance with his financial authority and shall submit to the Management Tenders Committee on a monthly basis, a summary of these tenders received and contracts awarded.

25.5 ***Receipt of Tenders***

Tenders for goods, services or works not exceeding \$100,000.00 shall be sealed in an envelope and placed in a tender box which shall be located in the relevant divisions or departments.

25.6 Late submissions shall not be considered under any circumstance.

25.7 ***Opening of Tenders***

The Tender box shall be opened immediately after the closing of the Tender as follows:

25.7.1 In the case of tenders not exceeding \$100,000.00 in the presence of:

- a. The General Manager
- b. Corporate Secretary or in his absence his designate
- c. Financial Controller or in his absence his designate

25.7.2 In the case of tenders not exceeding \$50,000.00 in the presence of:

- a. the appropriate Deputy General Manager
- b. Corporate Secretary or in his absence his designate
- c. Financial Controller or in his absence his designate

25.7.3 In the case of tenders not exceeding \$20,000.00 of:

- a. The appropriate Manager
- b. Corporate Secretary or in his absence his designate
- c. The Financial Controller or in his absence his designate

25.8 The number of tenders received shall be recorded.

25.9 ***Evaluation of Tenders***

The Tenders received shall be evaluated by a team comprising the following members:

25.9.1 In the case of the tenders not exceeding \$100,000.00, the General

Manager or his designate and at least two other members selected by the General Manager with the relevant competence in the subject matter to be evaluated.

25.9.2 In the case of tenders not exceeding \$50,000.00, the appropriate Deputy General Manager, and at least two other members selected by the appropriate Deputy General Manager with the relevant competence in the subject matter to be evaluated.

25.9.3 In the case of tenders not exceeding \$20,000.00, the appropriate Manager and at least one member of the relevant department and one member nominated from the Purchasing or Finance Department.

26.0 REGISTRATION AND DE-REGISTRATION OF CONTRACTORS

The Committee

26.1 There shall be established a Registration Committee which shall comprise of the following members:

- a. The Deputy General Manager – Corporate Services as the Chairman
- b. The Deputy General Manager – Estates Planning and Business Development
- c. The Deputy General Manager, Operations, PIA
- d. The Deputy General Manager, Operations, CPIA
- e. The Financial Controller

26.2 The Corporate Secretary or his designate shall be the Secretary of the Committee.

Functions of the Committee

26.3 The functions of the Registration Committee are:

- a. To approve the registration of new contractors and all other matters incidental to their status.
- b. To take disciplinary action against contractors.
- c. To approve the de-registration of contractors

26.4 A quorum shall be two members and the Chairman.

26.5 In the absence of the Deputy General Manager, Corporate Services, the members shall select one of the attending members to chair the meeting.

Registration

26.6 All applications for registration as a Contractor shall be submitted to the Corporate Secretary.

- 26.7 The Corporate Secretary shall issue a pre-qualification questionnaire to the applicant. The questionnaire shall be completed and returned to the Corporate Secretary
- 26.8 The applicant shall be issued with an acknowledgement indicating the time frame for processing.
- 26.9 A copy of the questionnaire shall be forwarded to the relevant division or department to verify the applicant's resources and make the necessary recommendations with respect to the category and financial capacity. The recommendation must be certified by the head of the department.
- 26.10 All completed questionnaires and recommendations shall be submitted to the Registration Committee for its deliberation and decision.
- 26.11 The decision of the Registration Committee shall be communicated to all applicants.
- 26.12 Successful applicants will be assigned a contractor registration number and placed on the Authority's List of Registered Contractors for the purpose of selective tendering.

List of Registered Contractors

- 26.13 The Authority shall maintain a list of the Registered Contractors.
- 26.14 Where selective tendering has been approved for the procurement of goods, services or works the contractors shall be selected from the List of Registered Contractors.

Rotation of Contractors

- 26.15 Where more than the required number of contractors is listed for a relevant category for the purpose of inviting selective tenders, the contractors will be divided into batches of the requisite numbers and rotated to ensure that each contractor listed has an equal opportunity to tender for goods, services or works at the Authority.
- 26.16 It will be the discretion of the Corporate Secretary to decide whether Contractors who have existing contracts for a category of services or works are invited to tender for the same category of services or works with the Authority.

Change of Name

- 26.17 A contractor may apply to have its name changed on the List of Registered Contractors by submitting the following documents, where applicable:
- a. Certificate of Amendment and Articles of Amendment
 - b. A letter signed by a partner or principal indicating the name

change and the date of change.

- c. A letter signed by the owner, indicating the name change and date of change.

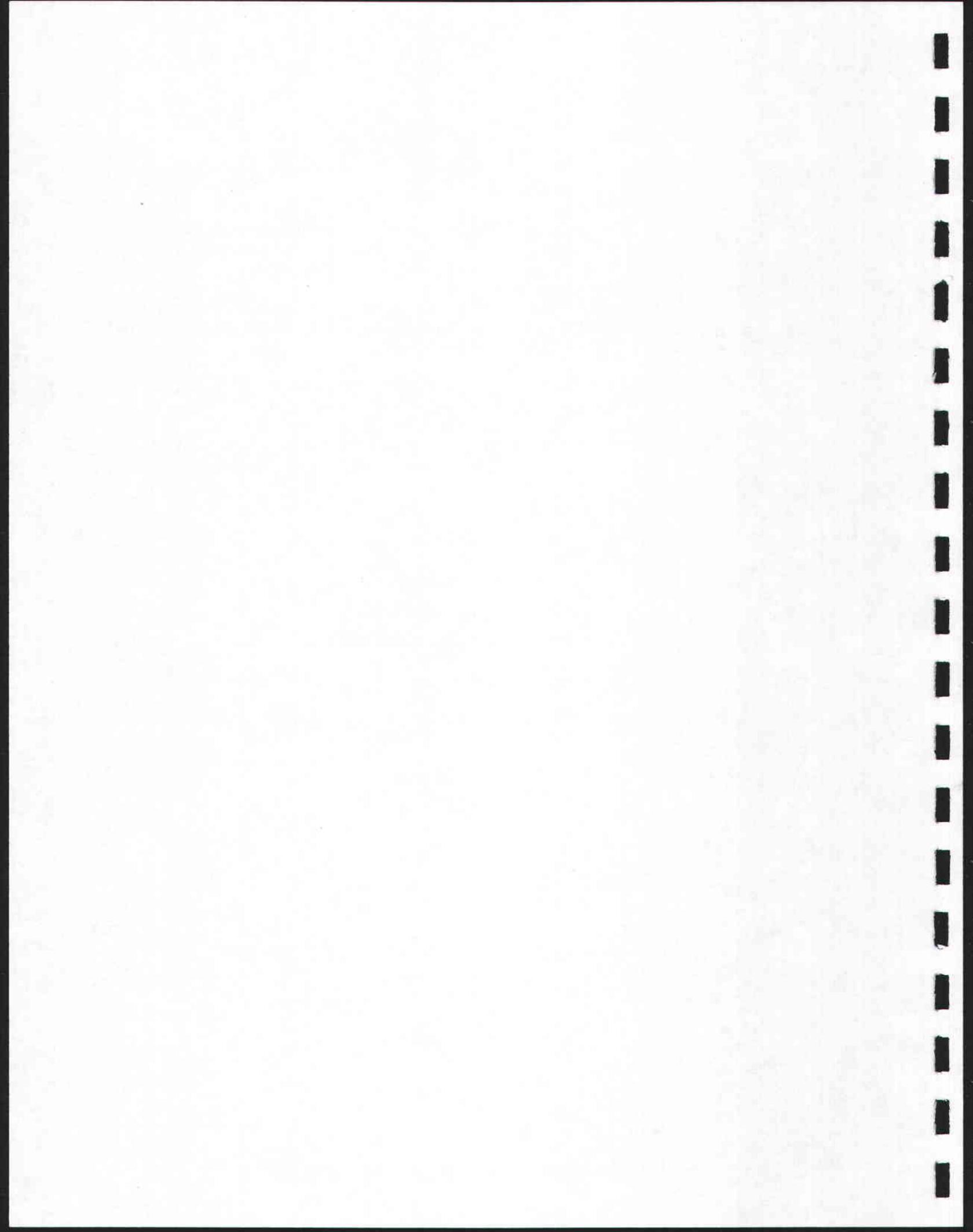
26.18 All changes must be reviewed by the legal department before submission to the Registration Committee for approval.

De-registration

26.19 The Registration Committee shall make recommendations to the Board Tenders Committee for the removal of contractors from the List of Registered Contractors.

26.20 The Registration Committee in its deliberation may refer to the following:

- a. Failure to submit a tender on three (3) consecutive occasions of invitation having been invited by the Authority so to do.
- b. Unsatisfactory performance of contract
- c. Refusing to execute a contract at tendered prices
- d. Failure to provide insurance coverage for the duration of the contract.
- e. Failure to observe the agreed terms and conditions of contract.
- f. Non-adherence to the Authority's safety regulations
- g. Notification of the Contractor's bankruptcy by the Registrar of Companies.
- h. The request of the Contractor.



**MINISTRY OF FINANCE
INVESTMENTS DIVISION**



*Level 15, Eric Williams Finance Bldg
Independence Square
Port of Spain*

**STANDARD PROCUREMENT PROCEDURES
FOR
THE ACQUISITION OF GOODS, SERVICES TO BE
PROVIDED AND WORKS TO BE UNDERTAKEN
AND
FOR THE DISPOSAL OF UNSERVICEABLE ITEM
IN
STATE ENTERPRISES/STATUTORY BODIES
(STATE AGENCIES)**

JUNE 2005

15



STANDARD PROCUREMENT PROCEDURES

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STANDARD PROCUREMENT PROCEDURES

- "Board"* - Board means the Board of Directors/Commissioners of a State Agency.
- "Chairman"* - Chairman means the Chairman of the Tenders Committee unless otherwise stated.
- "Committee"* - Committee means the Tender Committee of the State Agency.
- "Emergency"* - Emergency means any unforeseen or sudden situation that meets the State Agency's criteria for assistance and demands immediate or urgent action to minimize liability/loss.
- "Goods"* - Goods mean all goods, articles, materials, vehicles, machinery, equipment and things of all kind for capital or recurrent expenditure.
- "Minister"* - Minister means the Minister to whom the responsibility for the State Agency is assigned.
- "Offer/Tender"* - Offer/ Tender means an offer or quotation or group of offers or quotations made by a Contractor in response to a requirement by the State Agency to conduct specified work/services or to supply articles.
- "Open Tendering"* - Open Tendering means Tenders invited through advertisements or other forms of public notice from eligible parties.
- "Registered Contractors"* - Registered Contractors means a person, firm, or Company included on the entity list of Pre-qualified suppliers.
- "Relative"* - Relative means spouse (including Common-Law spouse), father, mother, brother, sister, son or daughter of a person.
- "Secretary"* - Secretary means Secretary to the Tenders Committee unless otherwise stated.
- "Selective"* - Selective means invitations issued only and directly to contractors from the entity's list of Registered Contractors.
- "State Agency"* - State Agency means a State Enterprise owned/controlled by the State or a Statutory Board.
- "Works"* - Works means construction type tasks, electricity, water, engineering works, maintenance and works of all kinds.



STANDARD PROCUREMENT PROCEDURES

ADMINISTRATION

1. APPLICATION

- (i) These Procedures shall not apply to State Agencies which fall under the purview of the Central Tenders Board Ordinance.
- (ii) These Procedures shall apply to all State Agencies (except those referred to in 1 above) for the procurement of Goods and Services or the undertaking of Works of a Recurrent or Capital Nature.
- (iii) These Procedures shall be placed before the Board of Directors to be approved.

2. ORGANIZATION OF PROCUREMENT

- (i) Procurement in State Agencies is the responsibility of the Board of Directors. However the Board may delegate some of this responsibility to a Tenders Committee and the Chief Executive Officer/Executive Director.

3. COMPOSITION OF THE TENDERS COMMITTEE

3.01 The Committee shall comprise a minimum of five (5) members who shall be:

- (i) Two members of the Board, one of whom shall be elected as Chairman of the Committee;
- (ii) The Chief Executive Officer/ Executive Director of the State Agency.
- (iii) The Financial Comptroller
- (iv) The Legal Officer or functionary

A Senior Officer shall be appointed Secretary to attend all meetings but shall not be a Member nor entitled to vote.

4. AUTHORITY

4.01 The Committee shall act in the State Agency's name for and on behalf of the State Agency:

- (i) In inviting, considering accepting or rejecting offers for the supply of goods or any service or for the undertaking of works in connection therewith, necessary for carrying out the functions of the State Agency.
- (ii) In disposing of unserviceable goods belonging to the State Agency in accordance with procedures established for this purpose.



STANDARD PROCUREMENT PROCEDURES

- 4.02 The Committee shall have such procurement functions and duties as the Board may assign from time to time.

5. CONFLICT OF INTEREST

- 5.01 A member of the Committee shall disclose his interest and not take part in evaluating, considering or discussing an offer, nor furnish any recommendation or vote on any question where-

- (i) He is a member, director or shareholder of a company or other body corporate; or
- (ii) Is a proprietor of or partner in a firm, or partnership; or
- (iii) Is employed by or is otherwise a party to a contract for services; or
- (iv) Has a financial interest in or relationship or
- (v) Is a relative of someone

who submitted an offer for the consideration of the Committee.

6. EMERGENCY PROCEDURES

- 6.01 In cases of emergency where the safety of people, property, plant and equipment is in jeopardy or where the continuity of the State Agency operations demand that contract(s) be awarded with urgency, the Chief Executive Officer, may award contracts as determined by the Board for goods or Services or works to be undertaken as necessary to avert the danger or to bring the situation under control and minimize the loss or liability.

- 6.02 Nevertheless, the following process shall be observed:

Within seventy-two (72) hours from the award of the contract, the Chairman of the State Agency or the Chairman of the Tenders Committee as appropriate must be advised of the action taken and a Report of the action taken must be submitted to the Chairman of the State Agency. Such report must include.

- (a) A Statement of the emergency circumstance that prevailed and the potential loss or liability
- (b) The State Agency's estimate of the scope and cost of the Works or Services
- (c) The Actual Cost
- (d) The Reasons why the particular Contractor was chosen



STANDARD PROCUREMENT PROCEDURES

EXEMPTIONS

- 7.01 On the recommendations of the Tenders Committee and with the approval of the Board of Directors the purchase of goods or services or works to be undertaken may be exempted from these rules where:
- (i) there is a limitation of sources of supply of the good or services or works to be undertaken;
 - (ii) the goods or services form part of a system already in use;
 - (iii) the goods were non interchangeable spares or replacement parts for goods already in use;
- 7.02 The Committee shall report any purchase made under this procedure to the Board of Directors.

8. APPEAL AGAINST TENDERING AND CONTRACT DECISION

- 8.01 Applicants, suppliers and contractors who have sound reason to believe that they have been unfairly treated by the Agency in respect of the application of these rules may appeal in writing to the Chairman of the Board outlining their complaint and provide reasons/ evidence.
- 8.02 The Chairman at the next Board Meeting shall inform the Board of the receipt of the complaint and the Board shall appoint a Sub-Committee to investigate same. The decision of the Sub-Committee shall be communicated to the Board for consideration.



STANDARD PROCUREMENT PROCEDURES

9. AMENDMENT TO RULES

9.01 These rules may be adopted, rescinded or amended by resolution of the Board upon the approval of the Minister of Finance.

10. GENERAL OR SPECIAL DIRECTIONS OF THE MINISTER

10.01 In the exercise of its powers and the performance of its duties, the Board shall conform with the general or special directions given to it by the Minister under the provisions of the Exchequer and Audit Act and the Corporation Sole Act No 5 of 1973.

11. MONTHLY REPORTS

11.01 The State Agency shall submit monthly Reports to the Minister of Finance, of all contract awarded together with the following information for each contract awarded over \$5 Million.

PRE-QUALIFICATION

12. REGISTRATION/DE-REGISTRATION OF CONTRACTORS

12.01 There shall be established a Pre-qualification Registration Committee. The Pre-qualification Registration Committee shall comprise of:

- (i) The Manager of Finance as Chairman and three other Line Managers one of whom shall be Secretary.
- (ii) 12.02 The Secretary and any two (2) members shall form a quorum. In the absence of the Chairman of this committee, the members present shall elect one of their members to be Chairman for the meeting.



STANDARD PROCUREMENT PROCEDURES

12.04 Registration

- (i) All applications for registration as a Contractor shall be submitted to the Secretary of the Pre-qualification Committee.
- (ii) The Secretary shall issue a registration form to the applicant for completion and return to the Pre-qualification Registration Committee.
- (iii) An acknowledgement shall be issued to the applicant.
- (iv) Upon satisfying the pre-qualification requirements, the applicant shall be informed accordingly by the Committee.

12.06 Additional Works or Services

- (i) Applications for an increase in scope of work capability by a Contractor must be submitted on a prescribed form and considered by the Committee.
- (ii) Such an increase in scope of work may address either:
 - An increase in the type of service(s) being offered by the Contractor.
 - An increase in the range of tenders for which the Contractor may be invited to bid as determined by the dollar value.

12.07 Change of Name and Updated Information

- (i) Applications for a change of name shall be scrutinized for any changes in the Contractor's technical and financial capabilities and must be accompanied by a Certificate of Registration from the Registrar of Companies in the case of limited liability companies.
- (ii) The advice of the Legal Division/ Officer must be obtained before submission to the Pre-qualification Registration Committee for approval.
- (iii) Registered Contractors shall be required on an annual basis to submit updated relevant information including but not limited to technical and financial capabilities.



STANDARD PROCUREMENT PROCEDURES

12.08 Dc-Registration.

The Pre-qualification Registration Committee may de-register contractors based on its deliberations in respect of Registered Contractors:

- (i) Continual failure to respond to tender invitation.
- (ii) Unsatisfactory work.
- (iii) Poor conduct of the Contractor and/or his employees on the job.
- (iv) Non-adherence to safety regulations.
- (v) History of unsuccessful Tenders due to high quotations.
- (vi) Refusing to execute work at tendered prices.
- (vii) Failure to observe the terms and conditions of the Contract.
- (viii) Evidence of collusion between the Contractor(s) and/or Entity's employee(s).
- (ix) Notification of the Contractor's bankruptcy by the Registrar of Companies.
- (x) Failure to immediately notify the Entity of any change in the data supplied by the Contractor upon which his registration was based, e.g. receivership.
- (xi) At the request of the Contractor.
- (xii) Any other reason which may adversely affect the Entity's interest.

The Pre-qualification Registration Committee shall afford the Contractor an opportunity to be heard.

13. DISQUALIFICATION FOR AWARD OF CONTRACT

- 13.01 Any person who, with the intention of gaining any advantage for himself or herself or any other person whether he has made an offer or not, offers any member of the Committee or officer of the State Agency a gift or money or other consideration or approaches any member of the State Agency in respect to any matter that is before the Committee or that is expected to come before the Committee shall be disqualified from being awarded a contract. This should be stated in the invitation to Tender.
- 13.02 The person or firm on whose behalf the representation was made will also be disqualified.
- 13.03 A Member of the Board of the Supplier, a member of the staff of the Supplier shall not enter into any Contract for the supply of goods or services to the State Agency while a Contract exists between the Supplier and the State Agency.



STANDARD PROCUREMENT PROCEDURES

14. CONFIDENTIALITY OF INFORMATION

- 14.01 Every Person having an official duty or being employed as Committee members shall regard and deal with all documents and information relating to the function of the Committee as confidential.

THE AWARD PROCESS

15. FUNCTIONS OF TENDERS COMMITTEE

- 15.01 The Tenders Committee/Chief Executive Officer shall, in accordance with the levels of authority, invite and consider Tenders for the supply of goods or services or works to be undertaken which are necessary for carrying out the objectives of the State Agency and shall make decisions or recommendations on the acceptance or rejection of such Tenders.
- 15.02 The Tenders Committee/Chief Executive Officer shall not for the purpose of giving themselves authority to act, subdivide the quantity of goods or services or Works to be undertaken in portions which fall within their respective financial limits.
- 15.03 The Committee shall:
- (i) Act for the State Agency in inviting and considering offers and tenders for the supply of goods or services or works to be undertaken of all kinds necessary for carrying out the functions of the State Agency.
 - (ii) Make decisions on behalf of the State Agency on the acceptance or rejection of tenders.
 - (iii) Make recommendations to the Board on the disposal of obsolete or unserviceable items.
 - (iv) Implement the policy and procedures on Tendering, Procurement and Contracting.
 - (v) Ensure that procurement is geared to achieve the highest quality of goods, services and construction, commensurate with the objectives of the State Agency.
 - (vi) Ensure accountability and transparency in all matters pertaining to tendering, procurement and contracting.
 - (vii) Ensure the selection of all contractors and service providers is made on sound, transparent, fair and cost-effective bases.



STANDARD PROCUREMENT PROCEDURES

16. MEETINGS OF THE COMMITTEE

- 16.01 The Committee shall meet as often as may be necessary or expedient for the transaction of their business.
- 16.02 The Secretary of the Committee shall fix the date, time and place of the meeting.

17. MINUTES OF MEETINGS

- 17.01 (i) The Minutes of each Meeting of the Committee shall be prepared in proper form and kept at the State Agency's office.
- (ii) Copies of confirmed Minutes of the Committee shall be submitted for the information of the Board.

18. DECISIONS OF THE COMMITTEE

- 18.01 (i) Decisions shall be taken at Committee meetings or where the Chairman so directs by circulation of papers.
- (ii) Papers should not be circulated to any member who has declared an interest.
- (iii) Decisions shall be by majority vote and in the event of an equality of votes, the Chairman shall have an original and casting vote.
- (iv) Any member who dissents shall request for such dissent to be recorded.
- (v) Three (3) members including a Director shall constitute a quorum.

19. INVITATION TO TENDER

19.01 Whenever goods or Services are required or works are to be undertaken on behalf of the State Agency, the Secretary shall be responsible for all invitations to Tender.

19.02 The Secretary shall:

- (i) Invite members of the public in general to make offers for the supply of such goods or services by notice published in the daily newspapers or subject to the approval of the Chairman of the Committee invite such bodies or persons from a list of pre-qualified contractors, suppliers and consultants.

The Suppliers and contractors list should be approved by the Pre-qualification Registration Committee.

19.03 The notice referred to in 19.02 shall be signed by the Secretary of the Committee and shall contain:

- (i) Sufficient description of the goods and services required or scope of works to be undertaken and shall whenever necessary also indicate the place where and the time when additional information relating thereto can be obtained.
- (ii) The form in which an offer is to be made.



STANDARD PROCUREMENT PROCEDURES

- (iii) Date of completion for the supply of goods or services or works to be undertaken.
- (iv) The date and time within which the offer is to be submitted
- (v) The place where the offer is to be submitted.
- (vi) A request for the submission of clearance certificates issued by the Board of Inland Revenue certifying satisfaction of all obligations in respect of taxes and VAT where applicable and a request for the submission of certificates from the National Insurance Board (NIB) certifying satisfaction of the National Insurance Scheme (NIS) obligations.
- (vii) The State Agency may require any person who is desirous of making a Bid in response to a public notice to deposit with the Agency a Tender Deposit.
- (viii) The Secretary may also fix and request a non-refundable tender document deposit.

20. FORM OF TENDER

- 20.01 The State Agency may prepare and print such forms or documents as in its opinion are necessary and appropriate for the submission of Tenders for the supply of goods or services or works to be undertaken.
- 20.02 Offers for the supply of goods and services may be made on the appropriate form supplied by the State Agency and shall be signed by the person making the Bid and enclosed in a sealed envelope addressed to the Secretary.
- 20.03 Alterations or erasures in any Bid made to the State Agency shall be initialled by the person making the Bid or by whoever is authorized so to do.

21. COMPLIANCE WITH THE INVITATION TO TENDER

- 21.01 The Committee may reject any offer which does not comply with any significant provisions outlined in the Invitation to Tender.

22. TENDER BOXES

- 22.01 (i) The State Agency shall keep at its offices in accessible locations specially constructed boxes in which all tenders shall be placed.
- (ii) Each box shall be marked 'Tender Box' and shall be so built so as to ensure the security of the documents placed in it.
- (iii) Each box shall have two (2) independent locks. The key of one (1) lock shall be kept by the Secretary and the other shall be kept by any other member of the Committee as the Committee may decide.
- (iv) The Secretary shall assign a box for the receipt of tenders on any matter up to the date and time fixed in the relevant notice and shall cause the box to be marked so that it may be readily identified by persons delivering tenders.



STANDARD PROCUREMENT PROCEDURES

- (v) A register of tenders must be provided by the office of the State Agency to record the date, time and the name of the person who delivered the tender.
- (vi) Tenders which cannot be accommodated in the tender boxes provided must be lodged for safekeeping with the Secretary of the Committee or the Company Secretary. A written acknowledgement of all such Tenders will be issued by the designated State Agency official receiving same and shall include the name of the bidder, the name of the person delivering the Tender, the name of the person receiving the tender, the date and time of delivery and the signatures of both parties.

23. COMPANY'S ESTIMATE

- 23.01 An estimate of the contract cost or State Agency's expectations in accordance with the Bid Documents should be prepared and approved

24. OPENING OF TENDERS

- 24.01 On the date and time fixed for the opening of tenders on any matter, the Secretary and the other holder of the key to of the locks shall unlock the tenders box and remove the tenders found therein.

- 24.02 The Secretary and the Member of the Committee/Chief Executive Officer shall open the sealed envelopes and shall cause entries of the following to be made in the Register:

- (i) The name of persons or firms making the tender.
- (ii) The sums of money mentioned in the tender.
- (iii) Certificates issued by the Board of Inland Revenue, VAT Office and National Insurance Board certifying satisfaction of all obligations.

The Secretary and the Member of the Committee shall sign each offer as it is opened and shall sign the register containing the information. The register shall be witnessed by those present.

- 24.03 Each person who made an offer shall be entitled to be present either personally or through a duly authorized representative at the opening of the Tenders Box.

- 24.04 If the time fixed for the opening of tenders is before the time fixed for a meeting of the Committee, then the offers, having been opened, noted and signed shall be placed in a safe place to the satisfaction of the Secretary until such time the Tenders Committee meets.

STANDARD PROCUREMENT PROCEDURES

25.0 TENDERS IN SEPARATE ENVELOPES

- 25.01 The Board may require an offer to comprise of a technical bid and a financial bid to be submitted in separate sealed envelopes.
- 25.02 Where both technical and financial bids have been received, the financial bids will remain sealed. The financial bids shall be opened sequentially in the order of the technical ranking until a suitable Bid is obtained. The unopened Bids will be returned to the tenderers.
- 25.03 In the case where both technical and financial bids are received, the tenderer shall be entitled to be present at the opening of the Financial Bid.

26. TENDERS DEPOSIT

- 26.01 The Committee may require any person who is desirous of making an offer to deposit with the company a sum in an amount to be fixed by the Secretary before any offer is made.
- 26.02 The Committee shall forfeit any sum so deposited if:
- (i) any person making the deposit fails to make an offer;
 - (ii) any person whose offer is accepted fails or refuses to enter into a formal contract;
 - (iii) any person to whom a contract is awarded fails to execute and fulfil the terms thereof;
- 26.03 After a contract is awarded the Board shall arrange for the refund of any deposits to persons whose offers have not been accepted.
- 26.04 The deposits may be refunded to anyone who withdraws an offer by writing to the Secretary or Secretary of the Tenders Committee before the closing date and time for receipt of tenders.

27. CONSIDERATION OF TENDER

- 27.01 After the tenders have been opened the Committee/Chief Executive Officer shall consider the offer made.
- 27.02 Where there is no significant difference, in the quality of items or in the capacity to undertake the required services, as between tenders, the lowest tender shall be accepted by the Committee.
- 27.03 Where the quality of the item differs between tenders, the Committee in determining which tender shall be accepted shall take cognisance of:-
- (a) the price Tendered;



STANDARD PROCUREMENT PROCEDURES

- (b) any evidence of reliability of performance;
- (c) any warranty or guarantee given;
- (d) the maintenance or repair services offered;
- (e) the adequacy of stocks or spare parts held in Trinidad and Tobago; and
- (f) the ability of the contractor to supply the goods or service.

27.04 where there is a significant difference in the capabilities of persons or bodies submitting tenders, the Committee in determining which offer shall be accepted shall take cognisance of:-

- (a) the price Tendered;
- (b) any evidence of previous supply of similar items or services;
- (c) any warranty or guarantee given;
- (d) technical skills, adequacy of support staff, supporting financial and contractual arrangements to the persons or bodies submitting tenders;
- (e) compatibility with other items and services used by the State Agency; and
- (f) any other matter relating to the quality or adequacy of performance of the items or services.

28. ACCEPTANCE OF TENDER

28.01 Where a tender has been accepted by the Committee/Chief Executive Officer the person or body who submitted the tender shall be notified by the Secretary/Chief Executive Officer of its acceptance.

28.02 A contract shall be in such form and contain such terms, conditions and provisions, as the State Agency may determine, and shall specify, inter alia, whenever applicable:-

- (i) a description of the goods and services to be provided or works to be undertaken;
- (ii) the price to be paid for the supply of such goods or services or works to be undertaken;
- (iii) the period within which the matters contemplated in the contract are to be performed;
- (iv) the amount of damages payable for delay or non-completion within the period stipulated; and
- (v) provisions for termination or breach of contract.

28.03 The Company may require a person to whom any contract is awarded to provide security in such form and to such extent as may be specified in the Invitation to Bid (ITB).

28.04 At least once a month the Tender Committee shall inform the Board of Directors of all contracts within their limits which were awarded for their information.



DISPOSAL

29. DISPOSAL OF UNSERVICEABLE STOCKS

- 29.01 Whenever the Chief Executive Officer determines that any article which is the property of the State Agency and which was originally valued at more than one thousand dollars is unserviceable or is surplus to the requirements of the State Agency the Chief Executive Officer shall provide a Report to the Tenders Committee.
- 29.02 The report shall contain a full description of the articles, the quantity thereof and the places where the articles are stored, its physical state and reason for disposal.
- 29.03 The Board may determine the written down value of Assets that require its approval before disposal.
- 29.04 A Report on the goods sold/disposed of and its proceeds shall be provided to the Board of Directors.

Chairman

THE COMPANIES ACT, 1995

APPLICATION FOR NAME SEARCH AND NAME RESERVATION

Information **MUST** be typed or written in block letters. Please read carefully **ALL** instructions at the back of this form before completing it.

1. Name of Applicant POLLONAIIS, BLANC de la BASTIDE & JACELON.....
Full Address:17-19 PEMBROKE STREET, PORT OF SPAIN.....

Postal Address :SAME AS ABOVE.....
(if different from above)

Telephone No. :623-5461-3.....

APPROVED



2. Proposed name : ... CARIBBEAN AIRLINES LIMITED.....

Alternative names (if any) in order of preference:

- (a).....N/A.....
- (b).....N/A.....
- (c).....

3. Purpose of Name Search/Reservation (Please tick appropriate box):

- Incorporation Amalgamation Extension Change of Name
- Profit
- Non-profit
- Unlimited
- Public
- Replacement of lost name reservation
- Other (please specify)

4. If for a change of name, state present name of company and registration number:
.....N/A.....

5. If for an amalgamation, state names of amalgamating companies and respective registration numbers:
.....N/A.....

Signature of Applicant *Gubina Hansing*
Attorney-at-Law - Pollonaiis, Blanc, de la Bastide & Jacelon

Dated the ..8th .. day ofSeptember....., 2006.....

FOR OFFICIAL USE ONLY

Name reserved until (specify date)	For Register
5-12-06 [] [] []	
	See attached letter if name not reserved

Date Received	Time Received	Application received by	Application checked by	Date checked
8/9/06	11.59am	NK	J.V.N.	9-21-06

- ~~CARIBBEAN AIRLINES LIMITED~~
- CARIBBEAN AIR NAVIGATION AND ADVISORY SERVICES LIMITED C 4662/95
- CARIBBEAN AIR PRODUCTS LIMITED C 2309 (C)
- CARIBBEAN AIR SERVICES LIMITED C 3937/95
- AIRLINE AND MARITIME OF THE CARIBBEAN AND TRINIDAD AND TOBAGO A 1013
- CARIBBEAN ATLANTIC AIRLINES INC. (CARIBAIR) BK10-248
- CARIBBEAN INTERNATIONAL AIRLINES (HOLDINGS) LIMITED C 4172/95 → state owned Min. of Finance.
- CARIBBEAN STAR AIRLINES LIMITED BK68-191
- BWIA CARIBBEAN AIRWAYS LIMITED (29/09/06 23/01/06 2 months approved) (same applicant)



REPUBLIC OF TRINIDAD AND TOBAGO

THE COMPANIES ACT, 1995

(Section 9)

ARTICLES OF INCORPORATION



REGISTERED

Caribbean Airlines Limited

1. Name of Company

Company No:

2. Liability of Members

Limited by Shares Limited by Guarantee Limited by Shares and Guarantee Unlimited

3. Is the Company a Public Company?

Yes No

4. The classes of shares and any maximum number of shares in each class that the Company is authorized to issue

THE ANNEXED FIRST SCHEDULE IS INCORPORATED IN THIS FORM

5. Restrictions, if any, on share transfers or share ownership

THE ANNEXED SECOND SCHEDULE IS INCORPORATED IN THIS FORM

6. Variation of Pre-emptive Rights

N/A

7. Restrictions, if any, on powers of directors to amend by-laws

N/A

8. Number (or minimum and maximum number) of Directors

THE NUMBER OF DIRECTORS SHOULD NOT BE LESS THAN TWO NOR MORE THAN SEVEN

9. Restrictions, if any, on business the Company may carry on

N/A

10. Other provisions, if any

THE ANNEXED THIRD SCHEDULE IS INCORPORATED IN THIS FORM

REGISTERED

11. Incorporators

Names and Occupations	Addresses	Signatures
Ravindra Nanga Attorney-at-Law	17-19 Pembroke Street Port of Spain	

22/09/06
12. Date

REPUBLIC OF TRINIDAD AND TOBAGO

THE COMPANIES ACT 1995

**ARTICLES OF INCORPORATION
OF
CARIBBEAN AIRLINES LIMITED**



This is the annexed Schedule referred to in ITEM 4

FIRST SCHEDULE

REGISTERED

4. CLASSES OF SHARES

4.1 The classes of shares which the Company is authorised to issue are:

4.1.1 an unlimited number of common shares without nominal or par value ("common shares") the holders of which are entitled:

- (i) to vote at all meetings of shareholders except meetings at which only holders of a specified class of shares are entitled to vote;**
- (ii) subject to the rights, privileges, restrictions and conditions attaching to any other class or series of shares the company, to receive any dividends declared and payable by the Company on the common shares; and**
- (iii) subject to the rights, privileges, restrictions and conditions attaching to any other class of shares of the Company, to receive the remaining property of the Company upon dissolution.**

4.1.2 an unlimited number of preference shares without nominal or par value to be issued in such classes each of one or more series and having such designations and attributes as to rank, dividends, voting rights, redemption rights, conversion rights and such other rights, restrictions, conditions or limitations as may be determined by resolution of the Directors passed at or prior to the issue thereof.


.....
Ravindra Nanga
Incorporator
Caribbean Airlines Limited

Date: 22/09/06

REGISTERED

REPUBLIC OF TRINIDAD AND TOBAGO

THE COMPANIES ACT 1995
ARTICLES OF INCORPORATION
OF
CARIBBEAN AIRLINES LIMITED



This is the annexed Schedule referred to in ITEM 5
SECOND SCHEDULE

REGISTERED

5. RESTRICTIONS ON SHARE TRANSFER OR SHARE OWNERSHIP

5.1 Except as hereinafter provided no shares in the Company shall be transferred unless and until the rights of pre-emption hereinafter conferred shall have been exhausted.

5.1.1 For the purpose of this Clause 5.1 where any person is unconditionally entitled to be registered as the holder of a share he and not the registered holder of such share shall be deemed to be a member of the Company in respect of that share.

5.1.2 Every member who desires to transfer any share or shares (hereinafter called the "Vendor") shall give to the Company notice in writing of such desire (hereinafter called "Transfer Notice"). Subject as hereinafter mentioned, a Transfer Notice shall constitute the Company the Vendor's agent for the sale of the share or shares specified therein (hereinafter called the "Sale Shares") in one or more lots at the discretion of the Directors to the members other than the Vendor at a price to be agreed upon by the Vendor and the Directors, or, in case of difference, at the price which the Auditors of the Company for the time being (such Auditors acting as experts and not as arbitrators) shall certify in writing to be in their opinion

the fair value thereof as at the date of the Transfer Notice as between a willing seller and a willing buyer contracting on arm's length terms, having regard to the fair value of the business of the Company and its subsidiaries, if any, as a going concern but without taking into account (if it be the case) that the Sale Shares constitute a minority interest. A Transfer Notice may contain a provision that unless all the Sale Shares comprised therein are sold by the Company pursuant to this regulation, none shall be sold and any such provisions shall be binding on the Company.

5.1.3 The Auditor's certificate as to the fair value of the Sale Shares shall be binding on all parties subject only to the right of cancellation by the Vendor in the next succeeding clause.

5.1.4 If the Auditor is asked to certify the fair price as aforesaid, the Company shall, as soon as it receives the Auditor's certificates furnish a certified copy thereof to the Vendor and the Vendor shall be entitled, by notice in writing given to the Company within ten days of the service upon him of the said certified copy, to cancel the Company's authority to sell the Sale Shares. The cost of obtaining the certificate shall be borne by the Company unless the Vendor shall give notice of cancellation as aforesaid in which case he shall bear the said cost.

5.1.5 Upon the price being fixed as aforesaid and provided the Vendor shall not give notice of cancellation as aforesaid the Company shall forthwith by notice in writing inform each member other than the Vendor of the number and price of the Sale Shares and invite each such member to apply in writing to the Company within thirty days of the date of dispatch of the notice (which date shall be specified therein) for such maximum number of the Sale Shares (being all or any thereof) as he shall specify in such application.

REGISTERED

5.1.6 If the said members shall within the said period of thirty days apply for all or (except where the Transfer notice provides otherwise) any of the Sales Shares, the Directors shall allocate the Sales Shares (or so many of them as shall be applied for as aforesaid) to or amongst the applicants and in case of completion pro rata (as nearly possible) according to the number of shares in the Company of which they are registered or unconditionally entitled to be registered as holders, provided that no applicant shall be obliged to take more than the maximum number of shares specified by him as aforesaid; and the Company shall forthwith give notice of such allocations (hereinafter called an "Allocation Notice") to the Vendor and to the persons to whom the Sales Shares have been allocated and shall specify in such Allocation Notice the place and time (being not earlier than fourteen and not later than twenty-eight days after the date of the Allocation Notice) at which the sale of the shares so allocated shall be completed.

5.1.7 The Vendor shall be bound to transfer the shares comprised in an Allocation Notice to the purchasers named therein at the time and place therein specified; and if he shall fail to do so, the chairman of the Company or some other person appointed by the Directors shall be deemed to have been appointed attorney of the vendor with full power to execute, complete and deliver, in the name and on behalf of the Vendor, transfers of the Sale Shares to the purchasers thereof against payment of the price of the Company. On payment of the price to the Company the purchaser shall be deemed to have obtained a good quittance for such payment and on execution and delivery of the transfer the purchaser shall be entitled to insist upon his name being entered in the register of members as the holder by transfer of the shares. The Company shall forthwith pay the price into a separate bank account in the

REGISTERED

Company's name and shall hold such price in trust for the Vendor. After the name(s) of the Transferee(s) has/have been entered in the register of members in purported exercise of the aforesaid powers the validity of the proceedings shall not be questioned by any person.

5.1.8 During the six months following the expiry of the said period of thirty days referred to in sub-clause 5.1.1, the Vendor shall be at liberty, subject nevertheless to the provisions of Clause 5.7 and 5.8 hereof, to transfer to any persons and at any price (not being less than the price fixed under sub-clause 5.1.2) any share not allocated by the Directors in an Allocation Notice; Provided that, if the Vendor stipulated in his Transfer Notice that unless all Sales Shares comprised therein were sold pursuant to this regulation, none should be so sold, the Vendor shall not be entitled, save with the written consent of all the other members of the Company, to sell hereunder only some of the shares comprised in his Transfer Notice.

5.1.9 The restrictions on transfer contained in this Clause 5.1 shall not apply to:

- (i) any transfer approved in writing by all the members;
- (ii) any request by a person becoming entitled to a share in consequence of the death or bankruptcy of a member to be registered as the holder of such share;
- (iii) any transfer by personal representatives to any person or persons absolutely entitled to the share transferred under the will on intestacy of a deceased member;

REGISTERED

- (iv) any transfer by a corporate member to an associated company (that is to say any Holding Company or Subsidiary of such corporate member and any other Subsidiary of any such Holding Company);
- (v) any transfer by a corporate member to a company formed to acquire the whole or a substantial part of the undertaking and assets of such corporate member as part of a scheme of amalgamation or reconstruction;
- (vi) any transfer by an individual member to a company controlled by that individual member;
- (vii) any transfer merely for the purpose of effectuating the appointment of new trustees or a transfer from a trustee to a beneficiary;

Provided that it be proved to the satisfaction of the Board that the transfer bona fide falls within one of these exceptions and provided also that before any transfer to an associated company or a company controlled by an individual member or a company falling within the provisions of paragraph (v) above is registered the parties thereto shall deposit with the Company joint and several undertakings under seal expressed to be for the benefit of the Company and of every member of the Company that in the event of the transferee ceasing at any time to be an associated company or a company controlled by the transferor or a company falling within the provisions of paragraph (v) above while it is registered as the holder of any shares comprised in the transfer it will forthwith notify the Company in writing and will, if so required in writing by the Company or any member of the Company as aforesaid at any time within 21 days after such notification as

REGISTERED

aforesaid, forthwith transfer the said shares back to the transferor; and if the transferee shall refuse or neglect or be unable to so transfer the said shares within a period of 21 days from the date of the said notification it shall be deemed to have delivered a Transfer Notice under Clause 5.1.2 hereof in respect of the said shares on the expiration of such period.

For the purpose of this Clause 5.1 the following words and expressions shall have the meanings attributed to them hereunder:

“Holding Company”: shall mean a company holding a minimum of 90% of the voting rights in a company which is already a member;

“Subsidiary” shall mean a company in which a company which is already a member holds a minimum of 90% of the voting rights; and

“A company controlled by an individual member” shall mean a company in which an individual member holds a minimum of 90% of the voting rights.

REGISTERED

5.2 In the case of the death of a member the survivor or survivors where the deceased was a joint holder and the legal personal representative of the deceased when he was a sole holder shall be the only persons recognised by the Company as having any title to his interest in the shares but nothing herein contained shall release the estate of the deceased holder whether sole or joint from any liability in respect of any share held by him.

5.3 Save as otherwise provided by or in accordance with these presents a person becoming entitled to a share in consequence of the death or bankruptcy of a member shall upon such evidence being produced as may from time to time be properly required by the Directors have the right either to be registered as a member in respect of the share or instead of being registered himself to make such transfer of the share as the deceased

or bankrupt person could have made by the Directors shall in either case have the same right to decline or suspend registration as they would have had in the case of a transfer of the share by the deceased or bankrupt person before the death or bankruptcy.

5.4 If the person so becoming entitled shall elect to be registered himself he shall deliver or send to the Company a notice in writing signed by him stating that he so elects and if he shall elect to have another person registered he shall testify the election by executing a transfer of the share to that person and all the limitations restrictions and provisions of these regulations relating to the right to transfer and the registration of transfer of shares shall be applicable to any such notice or transfer aforesaid as if the death or bankruptcy of the member had not occurred and the notice or transfer were a transfer signed by that member.

5.5 A person becoming entitled to a share by reason of the death or bankruptcy of the holder (upon supplying to the Company such evidence as the Directors may reasonably require to show his title to the share) shall be entitled to the same dividends and other advantages to which he would be entitled if he were the registered holder of the share except that he shall not before being registered as a member in respect of the share be entitled in respect of it to exercise any rights conferred by membership in relation to meetings of the Company provided always that the Directors may at any time give notice requiring any such person to elect either to be registered himself or to transfer the share and if the notice is not complied with within ninety days the Directors thereafter may withhold payment of all dividends, bonuses or other monies payable in respect of the share until requirements of the notice have been complied with.

REGISTERED

5.6 Nothing in these presents shall preclude the Directors from recognising a renunciation of the allotment of any share by the allottee in favour of some other person.

5.7 The Directors may decline to register the transfer of a share on which the Company has a lien. The Directors may also decline to register any transfer of any shares to any person other than a member provided that they shall not unreasonably refuse to register a transfer to a responsible person or company not being a competitor of the company or a director or major shareholder.

5.8 The Directors may also decline to recognise any instrument of transfer unless and until:

5.8.1 the rights of pre-emption conferred under Clause 5.1 hereof shall first have been exhausted;

5.8.2 the instrument of transfer is accompanied by the Certificate of the Shares to which it relates or such other evidence as the Directors may reasonably require to show the right of the transferor to make the transfer;

5.8.3 the instrument of transfer is in respect of only one class of shares;

5.8.4 the instrument of transfer is accompanied by such evidence as the Directors may reasonably require of the right of the transferee to hold such shares under my regulatory requirement applicable to the transferee; and

REGISTERED

5.8.5 a fee of \$1.00 or such lesser sum as the directors may from time to time require is paid to the company in respect thereof.


.....
Ravindra Nanga
Incorporator
Caribbean Airlines Limited

Date: 22/09/06

REGISTERED

REPUBLIC OF TRINIDAD AND TOBAGO

THE COMPANIES ACT 1995
ARTICLES OF INCORPORATION
OF
CARIBBEAN AIRLINES LIMITED



This is the annexed Schedule referred to in ITEM 10

THIRD SCHEDULE

REGISTERED

10. LIEN FOR INDEBTEDNESS

10.1 The Company shall have a first and paramount lien on every share and on the proceeds of sale thereof for any debt or other liability due to the Company by the holder thereof or his estate, solely or jointly with any other person but the directors may at any time declare any share to be wholly or in part exempt from the lien hereby created. The Company's lien (if any) on a share shall extend to all dividends payable thereon and any other rights attaching thereto. Unless otherwise agreed the registration of a transfer of shares shall operate as a waiver of the Company's lien, if any, on such shares.

10.2 VOTES AT SHAREHOLDERS' MEETINGS

At any meeting of shareholders every question shall, unless otherwise required by the by-laws or by law be determined by a majority of the votes cast on the question. In case of an equality of votes either upon a show of hands or upon a ballot, the chairman of the meeting shall have a second or casting vote.

10.3 PLACE OF SHAREHOLDERS MEETINGS

Meetings of shareholders shall be held at any place within or outside of Trinidad and Tobago as the directors may determine.

10.4 FILLING OF VACANCIES AMONG DIRECTORS

The directors shall have power at any time and from time to time to appoint any other person who is approved by all the directors to be a director of the Company, either to fill a casual vacancy or as an addition to the Board, but so that the total number of directors shall not at any time exceed the maximum number fixed as hereinbefore mentioned. Any director so appointed shall hold office only until the conclusion of the next following Ordinary General Meeting, when he shall retire, but shall be eligible for re-election.


.....
Ravindra Nanga
Incorporator
Caribbean Airline s Limited

Date: 22/09/06

REGISTERED

REPUBLIC OF TRINIDAD AND TOBAGO

THE COMPANIES ACT, 1995
(Section 8(3))

DECLARATION OF COMPLIANCE FOR PURPOSES OF
INCORPORATION OF COMPANY



NAME OF COMPANY: CARIBBEAN AIRLINES LIMITED

PRESENTED BY: POLLONAI, BLANC, de la BASTIDE & JACELON

I.....RAVINDRA NANGA.....

of.....17-19 PEMBROKE STREET, PORT OF SPAIN..... solemnly and

sincerely declare as follows:

REGISTERED

1.(a) * I am a person named in the articles of incorporation/the documents accompanying the articles of incorporation as a Director/Secretary of

OR

(b) ^A * I am an attorney-at-law of the Supreme Court of Trinidad and Tobago engaged on the formation of.... CARIBBEAN AIRLINES LIMITED

(* Delete paragraph if not applicable)

2. To the best of my knowledge and belief

- (i) none of the signatories to the articles of incorporation herein is an individual described in section 8(2) of the Companies Act
- (ii) all other requirements precedent to the formation and incorporation of a company under this Act have been complied with.

And I make this solemn declaration conscientiously believing the same to be true and by virtue of the provisions of the Statutory Declaration Act, 7:04

Sworn to at 27-19 Pembroke Street P.O.S. this 26th day of September 2006

Before me,

[Signature]
Commissioner of Affidavits.
BARBARA REMY
COMMISSIONER OF AFFIDAVITS



THE COMPANIES ACT, 1995
(Sections 71 and 79)

NOTICE OF DIRECTORS
OR
NOTICE OF CHANGE OF DIRECTORS

REGISTERED

1. Name of Company: Caribbean Airlines Limited Company No; _____

3. Notice is given that on the _____ day of _____ 2003, the following person(s) was/were appointed director(s):

NAME	ADDRESS	OCCUPATION
THE ANNEXED SCHEDULE A IS INCORPORATED IN THIS FORM		

4. Notice is given that on the _____ day of _____ 200 , the following person(s) ceased to hold officer as director(s)

Name	Address
N/A	

5. The directors of the company as of this date are:

NAME	ADDRESS	OCCUPATION
THE ANNEXED SCHEDULE B IS INCORPORATED IN THIS FORM		

6. Date	Name and Title	Signature
22/09/06	Ravindra Nanga Incorporator	

REPUBLIC OF TRINIDAD AND TOBAGO

THE COMPANIES ACT, 1995 SECTIONS 71 and 79

NOTICE OF DIRECTORS OR NOTICE OF CHANGE OF DIRECTORS OF:
CARIBBEAN AIRLINES LIMITED

This is the annexed Schedule referred to in Item 2

SCHEDULE A

3 Notice is given that on the 22nd day of September, 2006 the following person(s) was/were appointed director(s):

NAME	ADDRESS	OCCUPATION
ARTHUR LOK JACK	No. 2 Bhagoutie Trace San Juan	Businessman
GERVASE WARNER	No 63 Park Street, Port of Spain	Businessman
WILLIAM LUCIE-SMITH	No. 11-13 Victoria Avenue Port of Spain	Consultant
ROBERT RILEY	No. 5-5A Queen's Park West Port of Spain	Attorney-at-Law

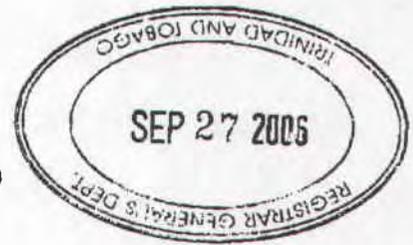


Ravindra Nanga
Attorney-at-Law
Authorised Agent of the Company

Date: 22nd September, 2006

REPUBLIC OF TRINIDAD AND TOBAGO

THE COMPANIES ACT, 1995 SECTIONS 71 and 79



NOTICE OF DIRECTORS OR NOTICE OF CHANGE OF DIRECTORS OF:
CARIBBEAN AIRLINES LIMITED

This is the annexed Schedule referred to in Item 5

SCHEDULE B

REGISTERED

5. The directors of the Company as of this date are:

NAME	ADDRESS	OCCUPATION
ARTHUR LOK JACK	No. 2 Bhagoutie Trace San Juan	Businessman
GERVASE WARNER	No 63 Park Street, Port of Spain	Businessman
WILLIAM LUCIE-SMITH	No. 11-13 Victoria Avenue Port of Spain	Consultant
ROBERT RILEY	No. 5-5A Queen's Park West Port of Spain	Attorney-at-Law

Ravindra Nanga
Incorporator
Caribbean Airlines Limited

Date: 22/09/06

REPUBLIC OF TRINIDAD AND TOBAGO

THE COMPANIES ACT, 1995
(Section 176(1) and (2))

NOTICE OF ADDRESS

OR

NOTICE OF CHANGE OF ADDRESS
OF REGISTERED OFFICE



1. Name of Company - CARIBBEAN AIRLINES LIMITED 2. Company No: _____

3. Address of Registered Office

17 - 19 Pembroke Street
Port of Spain

REGISTERED

4. Mailing address:

SAME AS ABOVE

5. If change of address, give previous address of Registered Office and date of change.

N/A

6. Date	Name and Title	Signature
22/09/06	Ravindra Nanga Incorporator	

REPUBLIC OF TRINIDAD AND TOBAGO

THE COMPANIES ACT, 1995
(Section 178(4)(b), (c))



NOTICE OF SECRETARY/ASSISTANT SECRETARY(IES)
OR
NOTICE OF CHANGE OF SECRETARY/ASSISTANT SECRETARY(IES)

1. Name of Company: Caribbean Airlines Limited	2. Company No.
--	----------------

3. Notice is given that on the 22nd day of September, 2006, the following individual(s), corporation(s), firm(s) was/were appointed secretary/assistant secretary(ies) *

REGISTERED
Occupation/Status *

Name	Address/Registered Office/ Principal Place of Business	Occupation/Status *
Rachel Laquis	BWIA West Indies Airways Ltd Administration Building Golden Grove Road Piarco	General Counsel and Corporate Secretary

4. Notice is given that on the _____ day of _____ 2006, the following individual(s) corporation(s), firms(s) ceased to hold office as Secretary/Assistant Secretary(ies) *

Name	Address/Registered Office/ Principal Place of Business	Occupation/Status *
	N/A	

5. The Secretary/Assistant Secretary(ies) as of this date is/are:

Name	Address/Registered Office/ Principal Place of Business	Occupation/Status *
Rachel Laquis	BWIA West Indies Airways Ltd Administration Building Golden Grove Road Piarco	General Counsel and Corporate Secretary

6. Date	Signature	Title
22/09/06	 Ravindra Nanga	Attorney-at-Law Authorised Agent for the Company

REPUBLIC OF TRINIDAD AND TOBAGO

1238857

Computer ID No.

C 5323(95)

Company No.

THE COMPANIES ACT, 1995

CERTIFICATE OF INCORPORATION

CARIBBEAN AIRLINES LIMITED

Name of Company

I hereby certify that the above-mentioned Company, the Articles of Incorporation of which are attached, was incorporated under the Companies Act, 1995 of Trinidad and Tobago.



[Signature]
Registrar of Companies

27th September, 2006
Date of Incorporation



**Ministry of Legal Affairs,
Registrar General's Department,
Registration House,
#72-74 South Quay,
Port-of-Spain.**

5th December, 2006

Messrs. Pollonais, Blanc,
de la Bastide & Jacelon,
Attorneys at Law et al,
Pembroke Court,
#17-19 Pembroke Street,
PORT OF SPAIN.

Attention: Mr. Mark Laquis, Attorney-at-Law

Dear Sirs,

RE: "CARIBBEAN AIRLINES LIMITED" (C 5323 (95))
(Your request dated 5th December 2006 refers)

I hereby advise that the above company was incorporated on the 27th day of September, 2006 pursuant to the provisions of the Companies Act, 1995, Chapter 81:01, of the Republic of Trinidad and Tobago.

I further advise as follows:

- (1) The said company is a subsisting company at the present time and is subject to the jurisdiction and laws of Trinidad and Tobago.
- (2) The said company appears, so far as is reasonably ascertainable, to be in substantial compliance with the provisions of the said Companies Act.

Yours faithfully,

.....
KAREN BRIDGEWATER-TAYLOR
DEPUTY REGISTRAR GENERAL



REPUBLIC OF TRINIDAD AND TOBAGO:

**THE COMPANIES ACT, 1995
(Section 251)**

STATEMENT OF CHARGE CREATED BY A COMPANY

Presented by: **POLLONAI, BLANC, de la BASTIDE & JACELON**

Name of Company: **CARIBBEAN AIRLINES LIMITED**

This is the Attached Schedule marked "B" referred to in the prefixed Particulars of Charge dated the 20th day of March 2007 made between the Caribbean Airlines Limited and National Westminster Bank plc

Amount secured by Mortgage or Charge:

All the liabilities of Caribbean Airlines Limited to National Westminster Bank plc of any kind and in any currency (whether present or future actual or contingent and whether incurred alone or jointly with another) together with all charges and commission Interest and Expenses of National Westminster Bank plc.



Corporate Secretary
Caribbean Airlines Limited

20/3/07

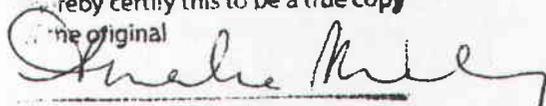
REGISTERED



Charge of Deposit with another
bank Secs 34 International (03/98)

**THIS IS AN IMPORTANT DOCUMENT. YOU SHOULD TAKE INDEPENDENT LEGAL
ADVICE BEFORE SIGNING AND SIGN ONLY IF YOU WANT TO BE LEGALLY BOUND.
IF YOU SIGN AND THE BANK IS NOT PAID YOU MAY LOSE THE ASSET(S)
CHARGED.**

Date: 20th March, 2007

reby certify this to be a true copy
of the original

Attorney at Law

Definitions

Mortgagor: Caribbean Airlines Limited, a company incorporated under the laws of Trinidad & Tobago

Bank: National Westminster Bank Plc

Interest: Interest at the rate(s) charged to the Mortgagor by the Bank from time to time

Deposit: All deposits now and in the future credited to Account designation RBSCAAI-USDC with The Royal Bank of Scotland plc and any deposit or account of any other currency description or designation which derives in whole or in part from such deposits or Account

Mortgagor's Obligations: All the Mortgagor's liabilities to the Bank of any kind and in any currency (whether present or future actual or contingent and whether incurred alone or jointly with another) together with the Bank's charges and commission Interest and Expenses

Expenses: All expenses (on a full indemnity basis) incurred by the Bank at any time in connection with the Deposit or the Mortgagor's Obligations or in taking or perfecting this deed or in preserving defending or enforcing the security created by this deed or in exercising any power under this deed or otherwise with Interest from the date they are incurred

Required Currency: The currency or currencies in which the Mortgagor's Obligations are expressed from time to time

Address for Service:

Charge

1 The Mortgagor covenants to discharge on demand the Mortgagor's Obligations and as a continuing security for such discharge and with full title guarantee assigns to the Bank the Deposit subject to re-assignment on redemption

Powers of the Bank

2.1 Section 103 of the Law of Property Act 1925 shall not apply and the Bank may exercise its power of sale and other powers under that or any other Act or this deed at any time after the date of this deed

2.2 The Bank may at any time without notice (both before and after demand) collect the Deposit or any part of it and appropriate it in discharge of the whole or any part of the Mortgagor's Obligations

REGISTERED

- 2.3 Section 93(1) of the Law of Property Act 1925 shall not apply to this deed
- 2.4 In addition to any lien or right to which the Bank may be entitled by law the Bank may from time to time without notice and both before and after demand set off the whole or any part of the Mortgagor's Obligations against any deposit or credit balance on any account of the Mortgagor with the Bank (whether or not that deposit or balance is due to the Mortgagor)
- 2.5 Despite any term to the contrary in relation to any deposit or credit balance on any account of the Mortgagor with the Bank that deposit or balance will not be capable of being assigned dealt with mortgaged or charged and will not be repayable to the Mortgagor before all the Mortgagor's Obligations have been discharged but the Bank may without prejudice to this deed permit the Mortgagor to make withdrawals from time to time
- 2.6 The Bank may exchange or convert to the Required Currency any currency held or received

Restrictions on Dealing and Charging

- 3 The Mortgagor will not without the Bank's prior written consent assign or deal with the Deposit or create or permit to arise any mortgage charge or lien on the Deposit

Permitted Drawings

- 4 The Bank may without prejudice to this deed permit the Mortgagor to make withdrawals from the Deposit from time to time

REGISTERED

Redesignation Renewal or Replacement of the Deposit

- 5 If the account in which the Deposit is held is changed replaced or redesignated this deed will apply to any deposit in the new or redesignated account from time to time

Power of Attorney

- 6 The Mortgagor irrevocably appoints the Bank to be the Attorney of the Mortgagor (with full power of substitution and delegation) in the Mortgagor's name and on the Mortgagor's behalf and as the Mortgagor's act and deed to sign or execute all deeds instruments and documents or take continue or defend any proceedings which may be required by the Bank pursuant to this deed or the exercise of any of its powers

Appropriation

- 7.1 Subject to Clause 7.2 the Bank may appropriate all payments received for the account of the Mortgagor in reduction of any part of the Mortgagor's Obligations as the Bank decides
- 7.2 The Bank may open a new account or accounts upon the Bank receiving actual or constructive notice of any charge or interest affecting the Deposit. Whether or not the Bank opens any such account no payment received by the Bank after receiving such notice shall (if followed by any payment out of or debit to the relevant account) be appropriated towards or have the effect of discharging any part of the Mortgagor's Obligations outstanding at the time of receiving such notice

Preservation of Other Security and Rights and Further Assurance

- 8.1 This deed is in addition to any other security present or future held by the Bank for the Mortgagor's Obligations and shall not merge with or prejudice such other security or any contractual or legal rights of the Bank
- 8.2 The Mortgagor will at the Mortgagor's own cost at the Bank's request execute any deed or document and take any action required by the Bank to perfect this security or further to secure on the Deposit the Mortgagor's Obligations

Mortgagor's Constitution and Powers

- 9 If the Mortgagor is a company the Mortgagor warrants to the Bank that:-
- 9.1 The Mortgagor is a corporation duly constituted and in good standing under the law of the country in which it is incorporated and the Mortgagor has appropriate power and authority to own its property and assets and carry on its business as now conducted
- 9.2 The Mortgagor has appropriate power to enter into and perform the terms and conditions of this deed and has taken all necessary action to authorise the execution delivery and performance of this deed
- 9.3 No permit licence approval or authorisation of any government judicial or other authority or other third party is required or desirable in connection with the execution performance validity or enforceability of this deed
- 9.4 The Mortgagor will on demand obtain or pay to the Bank the cost incurred by the Bank in obtaining at any time a written opinion from a legal firm acceptable to the Bank confirming Clauses 9.1 9.2 and 9.3 of this deed and any other matters relevant to this deed as the Bank may require

Governing Law and Jurisdiction

- 10.1 This deed shall be governed by and construed in accordance with English law
- 10.2 For the benefit of the Bank the Mortgagor irrevocably submits to the jurisdiction of the English Courts and the Mortgagor irrevocably agrees that a judgment in any proceedings in connection with this deed by the English Courts shall be conclusive and binding upon the Mortgagor and may be enforced against the Mortgagor in the Courts of any other jurisdiction. The Bank shall also be entitled to take proceedings in connection with this deed against the Mortgagor in the Courts of any country in which the Mortgagor has assets or in any other Courts of competent jurisdiction
- 10.3 The Mortgagor irrevocably waives:-
- 10.3.1 Any objection which the Mortgagor may now or in the future have to the English Courts or other Courts referred to in Clause 10.2 as a venue for any proceedings in connection with this deed and
- 10.3.2 Any claim which the Mortgagor may now or in the future be able to make that any proceedings in the English Courts or other Courts referred to in Clause 10.2 have been instituted in an inappropriate forum
- 10.4 The Address for Service (or such other address in England or Wales as the Mortgagor may from time to time nominate in writing to the Bank for the purpose) shall be an effective address for service of any notice or proceedings in the English Courts to or against the Mortgagor

REGISTERED

Notices

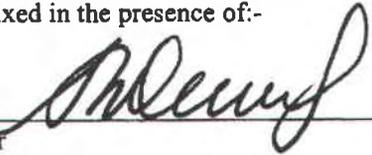
- 11.1 Any notice or demand by the Bank may be sent by post or fax or delivered to the Mortgagor at the Mortgagor's address last known to the Bank or the address stated in Clause 10.4 or if the Mortgagor is a company may be served personally on any director or the secretary of the Mortgagor
- 11.2 A notice or demand by the Bank by post shall be deemed served on the day after posting
- 11.3 A notice or demand by the Bank by fax shall be deemed served at the time of sending

Interpretation

- 12.1 **The expressions "Mortgagor" and "Bank" where the context admits include their respective successors in title and assigns**
- 12.2 **If two or more persons are included in the expression "Mortgagor" then the use in this deed of the word "Mortgagor" shall be deemed to refer to such persons both together and separately and the Mortgagor's Obligations shall be their joint and several obligations and each of them shall be primarily liable by way of indemnity for the liabilities to the Bank of the other or others of them**
- 12.3 **If the definition of "Deposit" refers to more than one deposit or account then the use in this deed of the word "Deposit" shall be deemed to refer to such deposits and/or accounts both together and separately**
- 12.4 **The expression "Deposit" includes all interest accrued or accruing in the future on it**
- 12.5 **Interest will be calculated both before and after demand or judgment on a daily basis and compounded according to agreement or in the absence of agreement monthly on such days as the Bank may select**
- 12.6 **Each of the provisions of this deed shall be severable and distinct from one another and if one or more of such provisions is invalid or unenforceable the remaining provisions shall not in any way be affected**

In Witness of which this deed has been duly executed

The Common Seal of the Mortgagor was affixed in the presence of:-



Director



Secretary

REGISTERED

National Westminster Bank Plc releases to the within named Mortgagor the Deposit comprised in the within written document

For and on behalf of National Westminster Bank Plc

Duly Authorised Official

Date

*Pollonais,
Blanc,
de la Bastide
& Jacelon*

*Attorneys-at-Law,
Notaries Public, Patent &
Trademark Agents*

PORT OF SPAIN

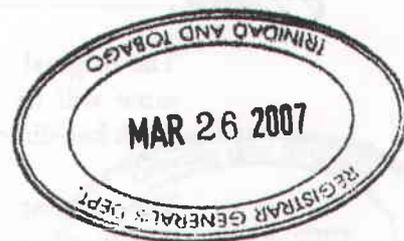
PEMBROKE COURT, 17-19 PEMBROKE STREET, PORT OF SPAIN, TRINIDAD, W.I.
MAIL: P.O.Box 350, P.O.S.
TEL. (868) 623-7496; 623-5461
FAX 624-5644; 625-8415/4076

SAN FERNANDO

9, IRVING STREET, SAN FERNANDO, TRINIDAD, W.I.
TEL. (868) 657-5659; 657-1309
FAX. 657-5659

E-mail: polanc@trinidad.net

FROM: THE PORT OF SPAIN OFFICE



March 23, 2007

Ms. Danielle Rampersad
Legal Officer
Ministry of the Attorney General & Legal Affairs
Registrar General's Department
Company's Registry
Registration House
Nos. 72-74 South Quay
Port of Spain.

Dear Madam,

Re: Registration of Particulars of Charge of Deposit dated the 20th day of March, 2007 ('the Charge') made between Caribbean Airlines Limited ('the Company') and National Westminster Bank plc ('the Bank')

We refer to the Charge at caption which was presented to the Company's Registry for registration on the 22nd instant and to your request for an explanation as to the reasons why the Charge was not presented the Board of Inland Revenue for stamping.

The Charge was not presented for the following reasons:-

1. The Charge is created over an asset owned by the Company out of the jurisdiction;
2. **Section 24 (2) of the Stamp Duty Act Chapter 76:01** provides that:

"an unstamped or insufficiently stamped instrument which has been first executed out of Trinidad and Tobago shall, in relation to stamp duty, be deemed to have been first executed on the date of its receipt in Trinidad and Tobago."

Edward A. Collier Notary Public ♦ Stephanie Daly LL.B. Notary Public ♦ Courtenay B. Williams LL.B.
Lisa Fulchan LL.B. ♦ Alana Bissessar LL.B. ♦ Mark Laquis LL.M. ♦ Ravindra Nanga LL.B.
Ramona L. Mohammed LL.B. ♦ Amalia Maharaj LL.B.
San Fernando Office: Salma Rahaman LL.B.

Associates:

Ria S. Furlonge LL.B. ♦ Vanessa Mohamed LL.B.
Nirad Samnadda-Ramrekersingh LL.B.
Savitri Sookraj LL.B. ♦ Shameli Parsad LL.B.

REGISTERED



REPUBLIC OF TRINIDAD AND TOBAGO

THE COMPANIES ACT, 1995

(Sections 71 and 79)

NOTICE OF DIRECTORS

OR

NOTICE OF CHANGE OF DIRECTORS

1. Name of Company **CARIBBEAN AIRLINES LIMITED** 2. Company No. **C 5323 (95)**

3. Notice is given that on the ~~1st~~ **16th** day of **January**, 2007 the following person(s) was/were appointed director(s):

REGISTERED

Name	Address	Occupation
Shafeek Sultan-Khan	15 Cipriani Boulevard, Newtown, Port-of-Spain	Attorney-at-Law

4. Notice is given that on the _____ day of _____, the following person(s) ceased to hold office as director(s)

Name	Address
N/A	

5. The directors of the company as of this date are:

Name	Address	Occupation
Arthur Lok Jack	#2 Bhagoutie Trace, San Juan	Businessman
Gervase Warner	#63 Park Street, Port-of-Spain	Businessman
William Lucie-Smith	#11-13 Victoria Avenue, Port-of-Spain	Chartered Accountant
Robert Riley	#5-5A Queen's Park West, Port-of-Spain	Attorney-at-Law
Shafeek Sultan-Khan	#15 Cipriani Boulevard, Newtown, Port-of-Spain	Attorney-at-Law

6. Date	Name and Title	Signature
April 02, 2008	Wendy Kerry Assistant Company Secretary	

REPUBLIC OF TRINIDAD AND TOBAGO

THE COMPANIES ACT, 1995

(Section 176(1) and (2))

NOTICE OF ADDRESS

OR

NOTICE OF CHANGE OF ADDRESS OF REGISTERED OFFICE



1. Name of Company **CARIBBEAN AIRLINES LIMITED** 2. Company No. **C 5323(95)**

3. Address of Registered Office **IERE HOUSE, GOLDEN GROVE ROAD, PIARCO**

4. Mailing address **SAME AS ABOVE**

REGISTERED

5. If change of address, give previous address of Registered Office and date of change.

17-19 PEMBROKE STREET, PORT OF SPAIN, OCTOBER 11, 2007

6. Date	Name and Title	Signature
11 OCTOBER 2007	WILLIAM LUCIE-SMITH DIRECTOR	

Amended Notice of Secretary dated 22nd September 2006 and filed on 27th September 2006

FORM 27

REPUBLIC OF TRINIDAD AND TOBAGO

THE COMPANIES ACT, 1995
(Section 178(4)(b), (c))



NOTICE OF SECRETARY/ASSISTANT SECRETARY(IES)
OR
NOTICE OF CHANGE OF SECRETARY/ASSISTANT SECRETARY(IES)

1. Name of Company Caribbean Airlines Limited. 2. Company No C5323 (95)

3. Notice is given that on the 22nd day of September, 2006, the following individual(s), corporation(s), firm(s) was/were appointed Secretary/Assistant Secretary(ies)

Name	Address/Registered Office/ Principal Place of Business	Occupation/ Status*
Rachel Laquis	BWIA West Indies Airways Limited Administrative Building	General Counsel and Corporate Secretary
	* Iere House	
	Golden Grove Road	
	Piarco	

4. Notice is given on the day of, 2006, the following individual(s), corporations(s), firms(s) ceased to hold office as Secretary/Assistant Secretary(ies)

Name	Address/Registered Office/ Principal Place of Business	Occupation/ Status*
N/A	N/A	N/A

REGISTERED

5. The Secretary/Assistant Secretary(ies) as of this date is/are:

Name	Address/Registered Office/ Principal Place of Business	Occupation/ Status*
Rachel Laquis	BWIA West Indies Airways Limited Administrative Building	General Counsel and Corporate Secretary
	* Iere House	
	Golden Grove Road	
	Piarco	

6. Date	Signature	Title
7-01-2008	 Amalia Maharaj	Attorney at Law Authorized Agent for the Company

REPUBLIC OF TRINIDAD AND TOBAGO

THE COMPANIES ACT, 1995

(Section 194(1))



ANNUAL RETURN OF A COMPANY FOR PROFIT INCORPORATED,
CONTINUED OR AMALGAMATED UNDER THE ACT

1. Name of Company: CARIBBEAN AIRLINES LIMITED	2. Company No. C 5323 (95)
---	-----------------------------------

3. Registered Office of Company **17-19 PEMBROKE STREET, PORT-OF-SPAIN**4. (a) Anniversary Date of Incorporation / Continuance / Amalgamation**SEPTEMBER 27, 2007****REGISTERED**

4. (b) Share Capital			Issued by Company in the last financial period		Purchased/Redeemed by Company in the last financial period	
Class of Shares	Number issued and Outstanding	Amount of stated capital	Number of shares	Amount of stated capital	Number of shares	Reduction of stated capital
COMMON	115,400,000	TT\$115,400,000.00	115,400,000	TT\$115,400,000.00	N/A	N/A
PREFERENCE	N/A	N/A	N/A	N/A	N/A	N/A

5. AUTHORIZED SHARE CAPITAL, IF ANY

CLASS OF SHARES

NUMBER OF SHARES IN EACH CLASS

1. **COMMON****UNLIMITED**2. **PREFERENCE****UNLIMITED**

3.

4.

6. LIST OF PERSONS HOLDING SHARES IN THE COMPANY ON THE **27th** DAY OF **SEPTEMBER, 2007**, AND OF PERSONS WHO HAVE HELD SHARES THEREIN AT ANY TIME SINCE THE DATE OF THE LAST RETURN, OR (IN THE CASE OF THE FIRST RETURN) OF THE INCORPORATION, CONTINUANCE OR AMALGAMATION OF THE COMPANY, SHOWING THEIR NAMES AND ADDRESSES AND AN ACCOUNT OF THE SHARES SO HELD

Name	Address/ Registered Office	Occupation/Status	Class of Shares and Number Held at date of Return
THE MINISTER OF FINANCE	ERIC WILLIAMS FINANCE BUILDING, INDEPENDENCE SQUARE, PORT-OF- SPAIN	CORPORATION SOLE	COMMON - 115,399,998
EUNICE WALTON	ERIC WILLIAMS FINANCE BUILDING, INDEPENDENCE SQUARE, PORT-OF- SPAIN	DIRECTOR	COMMON - 1
JAGGERNAUTH SOOM	ERIC WILLIAMS FINANCE BUILDING, INDEPENDENCE SQUARE, PORT-OF- SPAIN	DEPUTY PERMANENT SECRETARY (Ag.) - MINISTRY OF FINANCE	COMMON - 1

ACCOUNTS OF SHARES				
Particulars of Shares transferred since the date of the last Return or (in the case of the first Return) of the incorporation of the Company, or of its continuance, by persons who are still Shareholders		Particulars of Shares transferred since the date of the last Return or (in the case of the first Return) of the incorporation of the Company, or of its continuance, by persons who have ceased to be Shareholders		
Class of Shares and Number at date of Return	Date of Registration of Transfer	Class of Shares and Number at date of Return	Date of Registration of Transfer	Remarks
N/A	N/A	N/A	N/A	N/A
Date 15 - 01 - 2008		Signature <i>Sultan-Khan</i>		Title DIRECTOR

7. Total amount of the indebtedness of the Company in respect of all mortgages and charges of the kind which are required to be registered with the Registrar under the Companies Act..... **USD \$5.7 Million**

8. The directors of the company as of the date of the Annual Return are:

Name	Address	Occupation
ARTHUR LOK JACK	#2 BHAGOUTIE TRACE, SAN JUAN	BUSINESSMAN
GERVASE WARNER	# 63 PARK STREET, PORT-OF-SPAIN	BUSINESSMAN
WILLIAM LUCIE-SMITH	#11-13 VICTORIA AVENUE, PORT-OF-SPAIN	FINANCIAL CONSULTANT
ROBERT RILEY	#5-5a QUEEN'S PARK WEST, PORT-OF-SPAIN	ATTORNEY-AT-LAW
SHAFEEL SULTAN-KHAN	15 CIPRIANI BOULEVARD, NEWTOWN, PORT-OF-SPAIN	ATTORNEY-AT-LAW

9. The secretary/~~assistant secretary~~(ies) of the company as of the date of the Annual Return is/are:

Name	Address/Registered Office Principal place of Business	Occupation/Status
RACHEL LAQUIS	IERE HOUSE, GOLDEN GROVE ROAD, PIARCO	ATTORNEY-AT-LAW

10. Date	Name and Title	Signature
15-01-2008	SHAFEEL SULTAN-KHAN DIRECTOR	

REGISTERED



REPUBLIC OF TRINIDAD AND TOBAGO

THE COMPANIES ACT, 1995

(Section 194(1))

ANNUAL RETURN OF A COMPANY FOR PROFIT INCORPORATED,
CONTINUED OR AMALGAMATED UNDER THE ACT

1. Name of Company: CARIBBEAN AIRLINES LIMITED	2. Company No. C 5323 (95)
---	-----------------------------------

3. Registered Office of Company **17-19 PEMBROKE STREET, PORT-OF-SPAIN**

4. (a) Anniversary Date of Incorporation / [] Continuance / [] Amalgamation

SEPTEMBER 27, 2007

REGISTERED

4. (b) Share Capital			Issued by Company in the last financial period		Purchased/Redeemed by Company in the last financial period	
Class of Shares	Number issued and Outstanding	Amount of stated capital	Number of shares	Amount of stated capital	Number of shares	Reduction of stated capital
COMMON	115,400,000	TT US\$115,400,000.00	115,400,000	TT US\$115,400,000.00	N/A	N/A
PREFERENCE	N/A	N/A	N/A	N/A	N/A	N/A

5. **AUTHORIZED SHARE CAPITAL, IF ANY**

CLASS OF SHARES	NUMBER OF SHARES IN EACH CLASS
1. COMMON	UNLIMITED
2. PREFERENCE	UNLIMITED
3.	
4.	

6. LIST OF PERSONS HOLDING SHARES IN THE COMPANY ON THE **27th** DAY OF **SEPTEMBER, 2007**, AND OF PERSONS WHO HAVE HELD SHARES THEREIN AT ANY TIME SINCE THE DATE OF THE LAST RETURN, OR (IN THE CASE OF THE FIRST RETURN) OF THE INCORPORATION, CONTINUANCE OR AMALGAMATION OF THE COMPANY, SHOWING THEIR NAMES AND ADDRESSES AND AN ACCOUNT OF THE SHARES SO HELD

Name	Address/ Registered Office	Occupation/Status	Class of Shares and Number Held at date of Return
THE MINISTER OF FINANCE	ERIC WILLIAMS FINANCE BUILDING, INDEPENDENCE SQUARE, PORT-OF- SPAIN	CORPORATION SOLE	COMMON - 115,399,998
EUNICE WALTON	ERIC WILLIAMS FINANCE BUILDING, INDEPENDENCE SQUARE, PORT-OF- SPAIN	DIRECTOR	COMMON - 1
JAGGERNAUTH SOOM	ERIC WILLIAMS FINANCE BUILDING, INDEPENDENCE SQUARE, PORT-OF- SPAIN	DEPUTY PERMANENT SECRETARY (Ag.) - MINISTRY OF FINANCE	COMMON - 1

ACCOUNTS OF SHARES				
Particulars of Shares transferred since the date of the last Return or (in the case of the first Return) of the incorporation of the Company, or of its continuance, by persons who are still Shareholders	Particulars of Shares transferred since the date of the last Return or (in the case of the first Return) of the incorporation of the Company, or of its continuance, by persons who have ceased to be Shareholders			
Class of Shares and Number at date of Return	Date of Registration of Transfer	Class of Shares and Number at date of Return	Date of Registration of Transfer	Remarks
N/A	N/A	N/A	N/A	N/A
Date June 16, 2008	Signature 		Title ASSISTANT COMPANY SECRETARY	

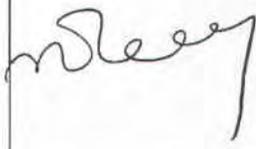
7. Total amount of the indebtedness of the Company in respect of all mortgages and charges of the kind which are required to be registered with the Registrar under the Companies Act..... **USD \$5.7 Million**

8. The directors of the company as of the date of the Annual Return are:

Name	Address	Occupation
ARTHUR LOK JACK	#2 BHAGOUTIE TRACE, SAN JUAN	BUSINESSMAN
GERVASE WARNER	# 63 PARK STREET, PORT-OF-SPAIN	BUSINESSMAN
WILLIAM LUCIE-SMITH	#11-13 VICTORIA AVENUE, PORT-OF-SPAIN	FINANCIAL CONSULTANT
ROBERT RILEY	#5-5a QUEEN'S PARK WEST, PORT-OF-SPAIN	ATTORNEY-AT-LAW
SHAFEEK SULTAN-KHAN	15 CIPRIANI BOULEVARD, NEWTOWN, PORT-OF-SPAIN	ATTORNEY-AT-LAW

9. The secretary/~~assistant secretary~~(ies) of the company as of the date of the Annual Return is/~~are~~:

Name	Address/Registered Office Principal place of Business	Occupation/Status
RACHEL LAQUIS	IERE HOUSE, GOLDEN GROVE ROAD, PIARCO	ATTORNEY-AT-LAW

10. Date	Name and Title	Signature
June 16, 2008	WENDY KERRY ASSISTANT COMPANY SECRETARY	

REPUBLIC OF TRINIDAD AND TOBAGO

THE COMPANIES ACT, 1995
(Section 178(4)(b), (c))



NOTICE OF SECRETARY/ASSISTANT SECRETARY(IES)

OR

NOTICE OF CHANGE OF SECRETARY/ASSISTANT SECRETARY(IES)

1. Name of Company **Caribbean Airlines Limited**

2. Company No **C5323 (95)**

3. Notice is given that on the 19th day of **December**, **2007**, the following individual(s), ~~corporation(s)~~, firm(s) was/were appointed ~~secretary/assistant secretary(ies)~~*

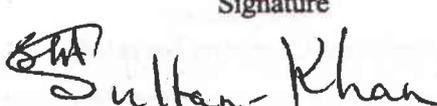
Name	Address/Registered Office/ Principal Place of Business	Occupation/Status *
Wendy Kerry	Iere House, Golden Grove Road, Plarco	Attorney-at-Law

4. Notice is given that on the _____ day of _____, the following individual(s) ~~corporation(s)~~, firms(s) ceased to hold office as ~~Secretary/Assistant Secretary(ies)~~*

Name	Address/Registered Office/ Principal Place of Business	Occupation/Status *
Not applicable		

5. The Secretary/Assistant Secretary(ies) as of this date is/are

REGISTERED

Name	Address/Registered Office/ Principal Place of Business	Occupation/Status *
Rachel Laquis - Secretary	Iere House, Golden Grove Road, Plarco	Attorney-at-Law
Wendy Kerry - Assistant Secretary	Iere House, Golden Grove Road, Plarco	Attorney-at-Law
6. Date	Signature	Title
Feb. 6, 2008	 Sultan-Khan	Director

REPUBLIC OF TRINIDAD AND TOBAGO

THE COMPANIES ACT, 1995

(Sections 71 and 79)

NOTICE OF DIRECTORS

OR

NOTICE OF CHANGE OF DIRECTORS



1. Name of Company **CARIBBEAN AIRLINES LIMITED** 2. Company No. **C 5323 (95)**

3. Notice is given that on the _____ day of _____ the following person(s) was/were appointed director(s):

Name	Address	Occupation
N/A		

REGISTERED

4. Notice is given that on the 30th day of December, 2007, the following person(s) ceased to hold office as director(s)

Name	Address
William Lucie-Smith	#11-13 Victoria Avenue, Port-of-Spain

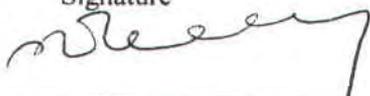
5. The directors of the company as of December 31, 2007 are:

Name	Address	Occupation
Arthur Lok Jack	#2 Bhagoutie Trace, San Juan	Businessman
Gervase Warner	#63 Park Street, Port-of-Spain	Businessman
Robert Riley	#5-5A Queen's Park West, Port-of-Spain	Attorney-at-Law
Shafeek Sultan-Khan	#15 Cipriani Boulevard, Newtown, Port-of-Spain	Attorney-at-Law

6. Date	Name and Title	Signature
Feb 20, 2008	Wendy Kerry Assistant Company Secretary	

Name	Address/ Registered Office	Occupation/Status	Class of Shares and Number Held at date of Return
THE MINISTER OF FINANCE	ERIC WILLIAMS FINANCE BUILDING, INDEPENDENCE SQUARE, PORT-OF- SPAIN	CORPORATION SOLE	COMMON - 115,399,998
EUNICE WALTON	ERIC WILLIAMS FINANCE BUILDING, INDEPENDENCE SQUARE, PORT-OF- SPAIN	DIRECTOR	COMMON - 1
JAGGERNAUTH SOOM	ERIC WILLIAMS FINANCE BUILDING, INDEPENDENCE SQUARE, PORT-OF- SPAIN	DEPUTY PERMANENT SECRETARY (Ag.) - MINISTRY OF FINANCE	COMMON - 1

REGISTERED

ACCOUNTS OF SHARES				
Particulars of Shares transferred since the date of the last Return or (in the case of the first Return) of the incorporation of the Company, or of its continuance, by persons who are still Shareholders		Particulars of Shares transferred since the date of the last Return or (in the case of the first Return) of the incorporation of the Company, or of its continuance, by persons who have ceased to be Shareholders		
Class of Shares and Number at date of Return	Date of Registration of Transfer	Class of Shares and Number at date of Return	Date of Registration of Transfer	Remarks
N/A	N/A	N/A	N/A	N/A
Date September 30, 2008	Signature 		Title ASSISTANT COMPANY SECRETARY	

7. Total amount of the indebtedness of the Company in respect of all mortgages and charges of the kind which are required to be registered with the Registrar under the Companies Act..... **USD \$5.7 Million**

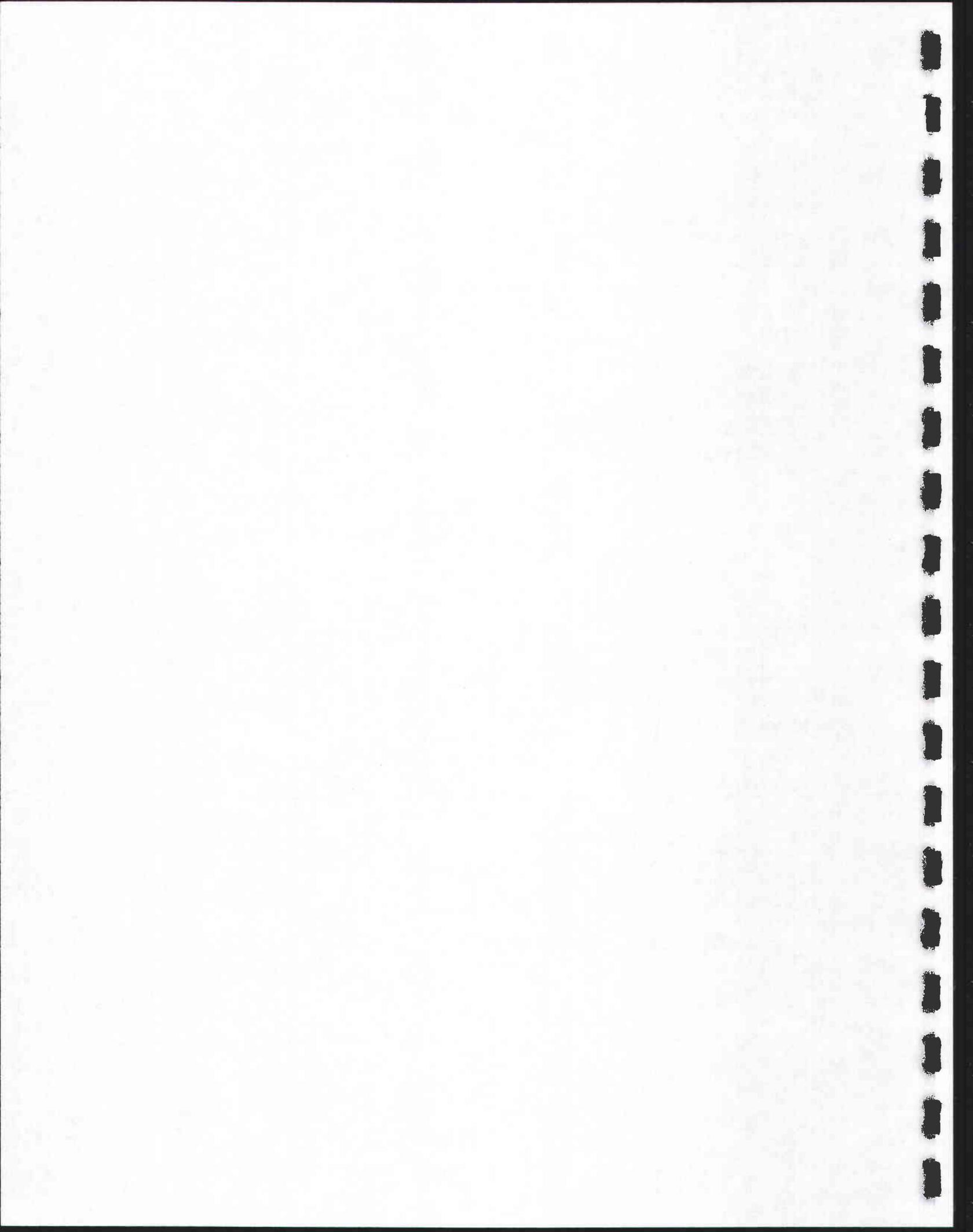
8. The directors of the company as of the date of the Annual Return are:

Name	Address	Occupation
ARTHUR LOK JACK	#2 BHAGOUTIE TRACE, SAN JUAN	BUSINESSMAN
GERVASE WARNER	# 63 PARK STREET, PORT-OF-SPAIN	BUSINESSMAN
ROBERT RILEY	#5-5a QUEEN'S PARK WEST, PORT-OF-SPAIN	ATTORNEY-AT-LAW
SHAFEEK SULTAN-KHAN	15 CIPRIANI BOULEVARD, NEWTOWN, PORT-OF-SPAIN	ATTORNEY-AT-LAW

REGISTERED

9. The secretary/assistant secretary(ies) of the company as of the date of the Annual Return is/are:

Name	Address/Registered Office Principal place of Business	Occupation/Status
RACHEL LAQUIS SECRETARY	IERE HOUSE, GOLDEN GROVE ROAD, PIARCO	ATTORNEY-AT-LAW
WENDY KERRY ASSISTANT SECRETARY	IERE HOUSE, GOLDEN GROVE ROAD, PIARCO	ATTORNEY-AT-LAW
10. Date	Name and Title	Signature
September 30, 2008	WENDY KERRY ASSISTANT COMPANY SECRETARY	



The construction, development, operation and management of the new commercial facilities at Piarco will require a variety of systems, equipment and vendors some of which may be US companies.

SH&E has gathered a list of appropriate major US businesses as shown below.

MAINTENANCE, REPAIR, AND OVERHAUL (MRO)

- 1. PEMCO World Air Services**
100 Pemco Drive, Dothan, AL 36303
Phone: 334-983-4571; Fax 334-983-7042
Website: www.pemcoair.com
- 2. TIMCO Aviation Services, Inc.**
623 Radar Rd. Greensboro, NC 27410
Phone: 336-668-4410; Fax: 336-665-9011
Website: www.timco.aero
- 3. Empire Aero Center**
394 Hangar Rd., Griffiss Park, Rome, NY 13441
Phone: 315-838-1500; Fax: 315-838-1555
Website: www.empireacmro.com
- 4. Goodrich Corp.**
1100 Wilson Boulevard, Suite 900, Arlington VA 22209-2296
Phone: 703-558-8230; Fax: 703-558-8261
Website: www.aerostructures.goodrich.com
- 5. AAR Corp.**
1100 N. Wood Dale Rd. Wood Dale, IL 60191
Phone: 630-227-2000; 800-422-2213; Fax: 630-227-2039
Website: www.aarcorp.com
- 6. The Nordam Group**
6911 N. Whirlpool Dr. Tulsa, OK 74117
Phone: 918-401-5000; Fax: 918-401-5745
Website: www.nordam.com
- 7. Aviation Technical Services, Inc.**
3100 112th St. S.W. Everett, WA 98204-3500
Phone: 425-347-3030; Fax: 425-423-3508
Website: www.atismro.aero
- 8. Triumph Group, Inc.**

1550 Liberty Ridge Dr., Suite 100 Wayne, PA 19087
Phone: 610-251-1000; Fax: 610-251-1555
Website: www.triumphgroup.com

9. Global Aircraft Solutions, Inc./Hamilton Aerospace Technologies

6451 S. Country Club Rd. Tucson, AZ 85706
Phone: 520-547-8631; Fax: 520-547-8638
Website: www.hamaerotech.com

10. ST Mobile Aerospace Engineering, Inc. (MAE)

9th Street, Brookley Complex, Mobile, Alabama 36615
Phone: 251-438-8888; Fax: 251-438-8892
Website: www.staero.aero

AIR CARGO DEVELOPERS

11. Aeroterm

201 West Street, Suite 200 Annapolis, MD 21401
Phone: 410-280-1100
Website: www.aeroterm.com

12. Aviation Facilities Company, Inc.

7600 Colshire Drive, Suite 240, McLean, VA 22102 USA
Phone: 703-902-2900; Fax: 703-902-2901
Website: www.afcoinc.com

13. Lynxs Group

106 East 6th Street, Suite 550
Austin, TX 78701 USA
Phone: 512-539-2190; Fax: 512-539-2211
Website: www.lynxs.com

FIXED BASE OPERATORS (FBOs)/AIRPORT LOGISTICS

14. Atlantic Aviation Corp.

6504 International Pkwy., Suite 2400, Plano, TX 75093

Phone: 972-447-4200; Fax: 302-322-7221

Website: www.atlanticaviation.com

15. Aircraft Service International Group (ASIG)

201 S. Orange Ave., Suite 1100-A, Orlando, FL 32801

Phone: 407-648-7373; Fax: 407-206-5391

Website: www.asig.com

16. Jet Aviation Holdings USA Inc

112 Charles A. Lindbergh Drive, Teterboro, NJ 07608

Phone: 201-288-8400 ; Fax : 201-462-4136

Website: www.jetaviation.com

17. Landmark Aviation

1500 CityWest Blvd. Suite 600, Houston, TX 77042

Phone: 713-895-9243; Fax: 713-690-9553

Website: www.landmarkaviation.com

18. Allied Aviation

462 7th Ave., 17th Fl., New York, NY 10018

Phone: 212-868-3870; Fax: 212-868-3871

Website: www.alliedaviation.com

19. Evergreen Aviation Ground Logistics Enterprises, Inc.

3850 Three Mile Lane, McMinnville, OR 97128

Phone: 503-472-9361; Fax: 503-472-9150

Website: www.evergreenaviation.com/EAGLE

20. Airport Terminal Services (ATS)

111 Westport Plaza Drive, Suite 400, St. Louis, Missouri 63146

Phone: 314-739-1900; Fax: 314-739-7070

Website: www.atsstl.com

21. Servisair USA, Inc.

5200 Blue Lagoon Dr., Suite 700, Miami, FL 33126

Phone: 305-262-4059; Fax: 305-262-8975

Website: www.servisair.com

22. PrimeFlight Aviation Services, Inc.

7135 Charlotte Pike, Suite 100, Nashville, TN 37209

Phone: 615-312-7856

Website: www.primeflight.com

AIRCRAFT COMPONENT SUPPLY AND SALES

23. Boeing Parts

P.O. Box 3707, MC: 35-44, Seattle, WA 98124-2207

Phone: 206-544-7333

Website: www.boeing.com

24. United Aerospace Corp.

Subsidiary-YMC Aviation, Inc.

9800 Premier Pkwy., Miramar, FL 33025

Phone: 954-364-0085; Fax: 954-364-0089

Website: www.unitedaerospace.com

25. AAR Composites

Subsidiary-AAR Corp.

14201 Myerlake Circle; Clearwater, FL 33760

Phone: 727-539-8585; Fax: 727-539-0316

Website: www.aarcorp.com

26. General Electric Company

3135 Easton Turnpike, Fairfield, CT 06828

Phone: 203-373-2211

Website: www.ge.com

27. Derco Aerospace

8000 West Tower Ave, Milwaukee, WI 53223

Phone: 414-355-3066; Fax: 414-355-6129

Website: www.dercoaerospace.com

28. Composites Unlimited

16452 Construction South

Irvine, CA 92606

Phone: 949-559-0930; Fax: 949-559-1413

Website: www.compositesunlimited.com

29. Weber Aircraft LLC

2000 Weber Drive - Gainesville, TX 76240

Phone: 940-668-4100

Website: www.weberair.com

30. B/E Aerospace, Inc

1400 Corporate Center Way, Wellington, FL 33414

Phone: 561-791-5000; Fax: 561-791-7900

Website: www.beaerospace.com



**Appendix F:
EXISTING CONDITIONS AND ICAO STANDARDS REVIEW**



Piarco International Airport (POS) is located 22 kilometers (13.6 miles) east-southeast of Port of Spain, the capital city of Trinidad and Tobago. The closest airport to POS is Crown Point International Airport located 84 kilometers (52 miles) to the northeast on the island of Tobago. The Airport Reference Point (ARP), which is the geographic center of the airfield, is located 579 meters (1,900 feet) from the threshold of Runway 10 on the Runway centerline. It is at an elevation of 17.4 meters (57 feet) above mean sea level and is located on 10° 35' 35" Latitude and 61° 20' 55" Longitude. The airport area is defined by the physical boundaries of the Churchill – Roosevelt Highway to the north, the Caroni River to the south, Mausica Road to the east, and the general area of the convergence of the Oropuna and Caroni Rivers north to Churchill – Roosevelt Highway on the west. The land encompassed by the Airport property line is approximately 681.56 hectares (1,684.17 acres). The Airport property conforms to the runway and passenger terminal layouts, providing (on average) 1,950 meters (6,400 feet) of clearance north of the runway centerline and over 800 meters at the furthest point (2,625 feet) of clearance south of the runway centerline. The property line is approximately 240 meters (787 feet) west of Runway 10's threshold, and 440 meters (1,444 feet) east of Runway 28's threshold. The communities surrounding the Airport are comprised of light-density residential and small agricultural plots.

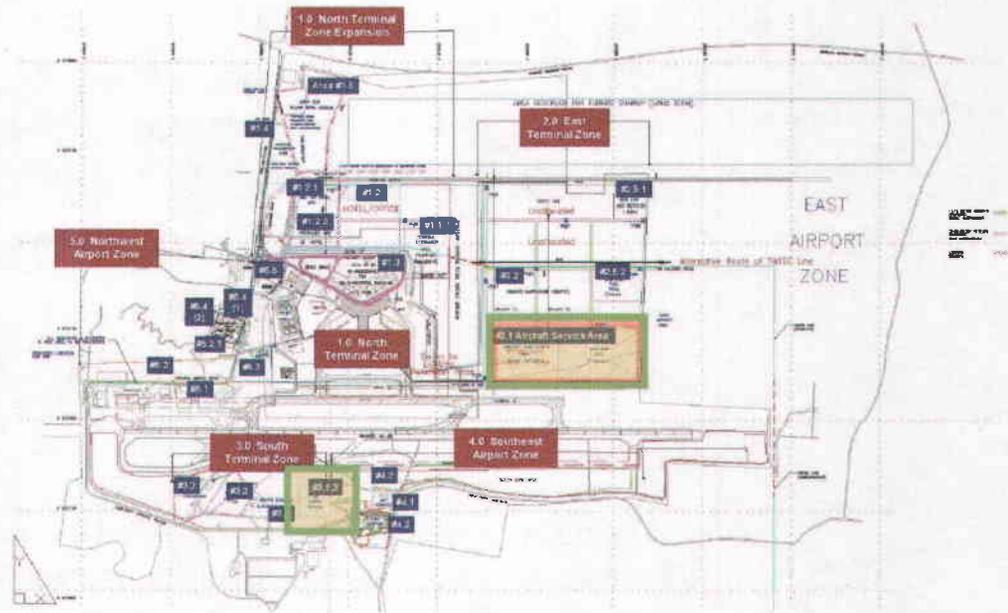
In accordance with the task requirements of this report, the areas of study include two designated future development areas outlined in the Airport's official Land Use Plan. The designated future MRO area is located in the airport authority-designated "Aircraft Service Area" (Area #2.1), 1,000 meters east of the airport's passenger terminal, running parallel and north along Runway 10-28. The future cargo area is located on the southwestern portion of airfield on the airport-designated area named "South Terminal Zone" (Area #3.1.3) where the old passenger terminal was previously located. The green boxes highlight the areas of study in Exhibit E-1.

The airport's current aircraft servicing, maintenance, and cargo operations are mostly handled at the old location of the BWIA facilities which are now owned and operated by Caribbean Airlines. Due to future plans of the airport requiring a full length parallel taxiway in this area, the facilities will have to be relocated. As such, the general Caribbean Airlines maintenance and cargo facilities can be redesigned to meet future tenant goals and take advantage of the many market advantages in the Caribbean Basin by also potentially investing in an MRO facility.

In order to conduct the analysis, SH&E recognized that it was crucial to take the initial step of identifying an airport's existing and potential future facility requirements by referencing fundamental development guidelines. By examining the types of aircraft expected to use the airport and the information contained within the

SH&E project material for the related tasks, it is possible to establish the critical aircraft for design purposes. This critical aircraft is usually the most demanding aircraft using the airport, however, in this case it was determined that the critical aircraft that are anticipated to use the MRO and Cargo facilities are mainly ICAO Code D aircraft.

Exhibit E-1: POS General Land Use Map/Areas of Study



Source: *Strategic Land Use Development Plan*, All-Inclusive Project Development Services Limited (APDSL), October 2007.

The Airport's Aerodrome Reference Code (ARC) of "4E" was confirmed based on the characteristics of the critical aircraft. The three primary characteristics of a critical aircraft are the aircraft's reference field length, wingspan and outer main gear wheel span. Because some aircraft may have large wingspans and relatively slow approach speeds, while others may have bigger field length with less wing span or outer main gear wheel span, it is sometimes necessary to establish more than one critical aircraft. The ARC is made up of two components, a number designation followed by a letter. The number indicates the airplane reference field length and the letter the wingspan category and outer main gear wheel span of the most demanding aircraft. Exhibits E-2 and E-3 delineate the Aerodrome Reference Code and Aircraft Design Groups according to ICAO Annex 14. It is important to note that the POS Runway 10-28 north parallel taxiway designated as "Taxiway A" is a Code E taxiway. These design requirements were taken into account when the MRO facility concept was created.

Exhibit E-2: Aerodrome Reference Code (1)

Code Number	Aeroplane Reference Field Length
1	Less than 800 m
2	800 m up to but not including 1200 m
3	1200 m up to but not including 1800 m
4	1800 m and over

Source: ICAO Annex 14, Chapter 1

Exhibit E-3: Aerodrome Reference Code (2)

Code Letter	Wingspan (meters)	Outer Main Gear Wheel Span (meters)
A	Up to but not including 15 m	Up to but not including 4.5 m
B	15 m up to but not including 24 m	4.5 m up to but not including 6 m
C	24 m up to but not including 36 m	6 m up to but not including 9 m
D	36 m up to but not including 52 m	9 m up to but not including 14 m
E	52 m up to but not including 65 m	9 m up to but not including 14 m
F	65 m up to but not including 80 m	14 m up to but not including 16 m

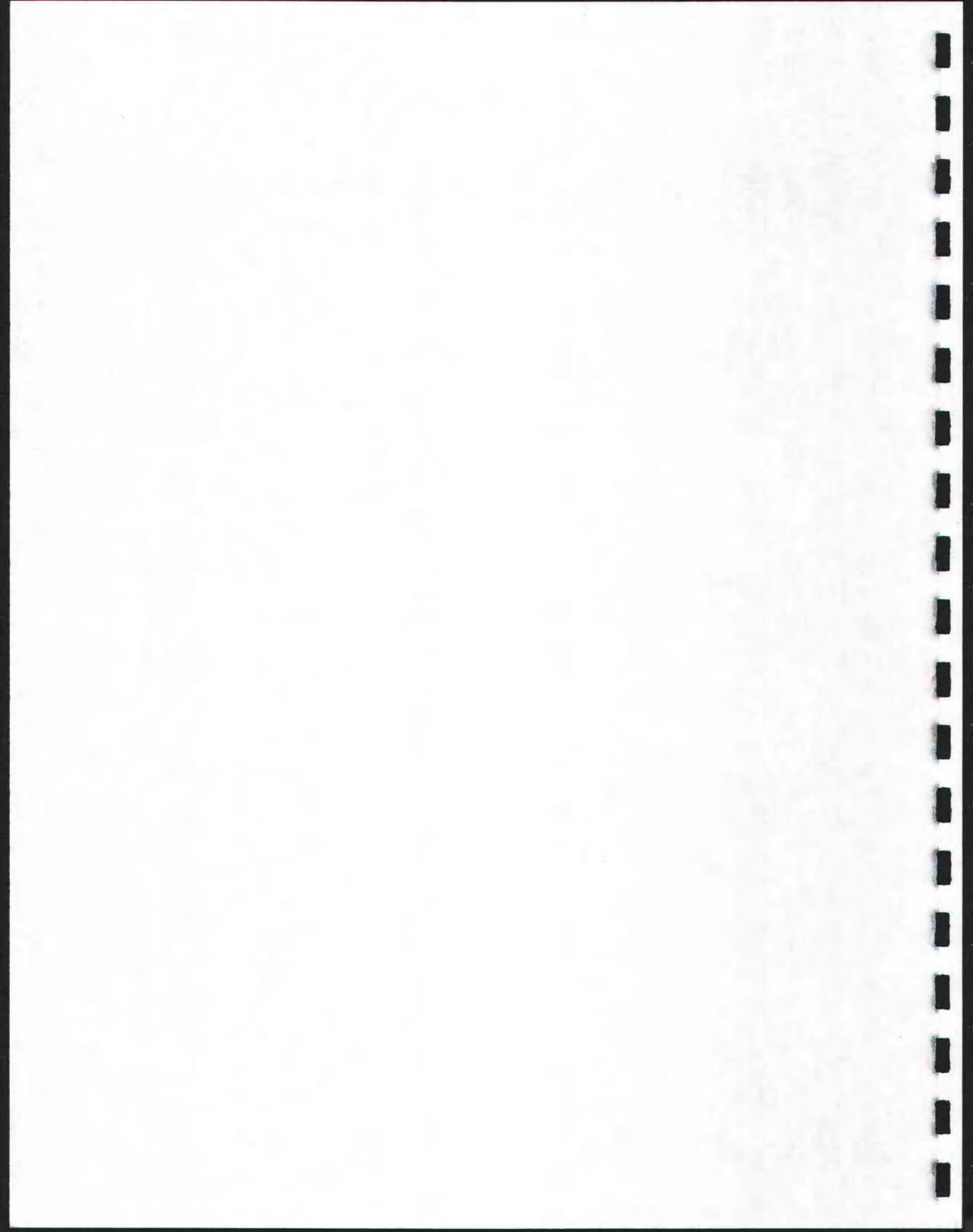
Source: ICAO Annex 14, Chapter 1.

The SH&E aviation forecast for POS included information as to the types of aircraft that would service a cargo/MRO market such as Trinidad and Tobago and/or The Caribbean. Using this forecast, a “critical” or representative aircraft could be identified to guide the design of the MRO and Cargo facilities. This is referred to as the “design aircraft”; it is typically the aircraft that places the most demands upon the section of the airfield in the study. The existing and future airport facilities at POS were analyzed in accordance with ICAO design criteria established in ICAO Annex 14, Chapter 3. The specific design criteria associated with Airport Reference Codes 4-D and 4-E are shown in Exhibit E-4 and were used in the critical analyses.

Exhibit E-4: Airport Design Criteria

Criteria	ARC 4-D (m)	ARC 4-E (m)
Runway to Parallel Taxiway/Taxilane Centerline	176	182.5
Runway Width	45	45
Runway Shoulder Width	7.5	7.5
Width of Runway Strip	150	150
Runway Safety Area Length Beyond each Runway End	240	240
Taxiway Centerline to Parallel Taxiway/Lane Centerline	66.5	80
Taxiway Centerline to Fixed or Movable Object	40.5	47.5
Taxilane Centerline to Fixed or Movable Object	36	42.5
Taxiway Width	23	23
Taxiway Shoulder Width	7.5	10.5

Source: ICAO Annex 14



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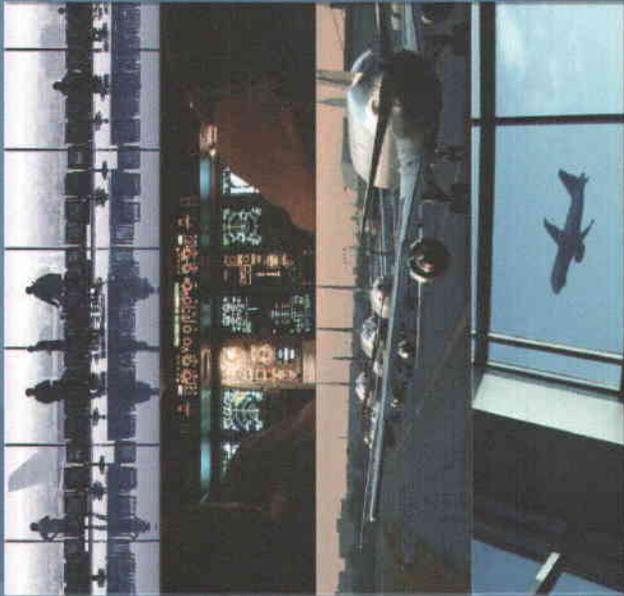


**Appendix G:
MARKETING MATERIALS**



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CARIBBEAN AIRLINES MAINTENANCE CENTER

Proposed Marketing Materials

Prepared for:

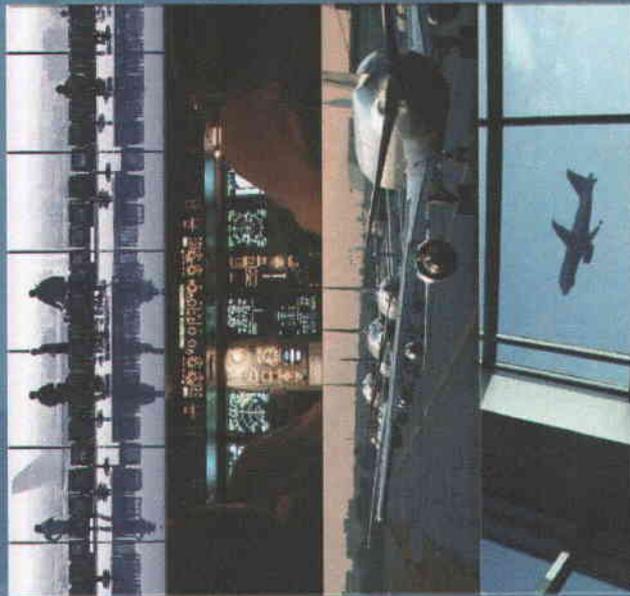


Airports Authority of
Trinidad and Tobago

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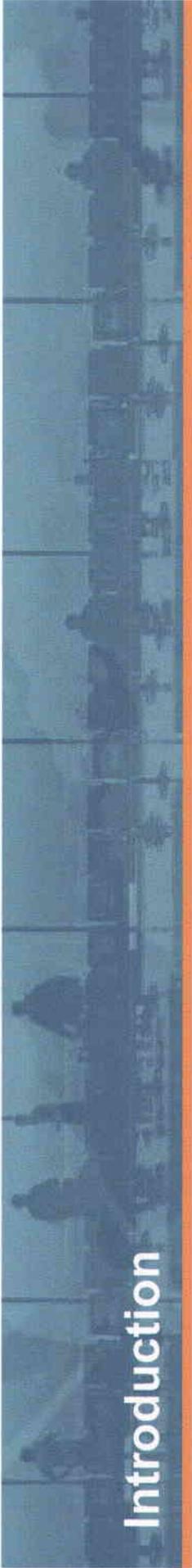
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The Opportunity

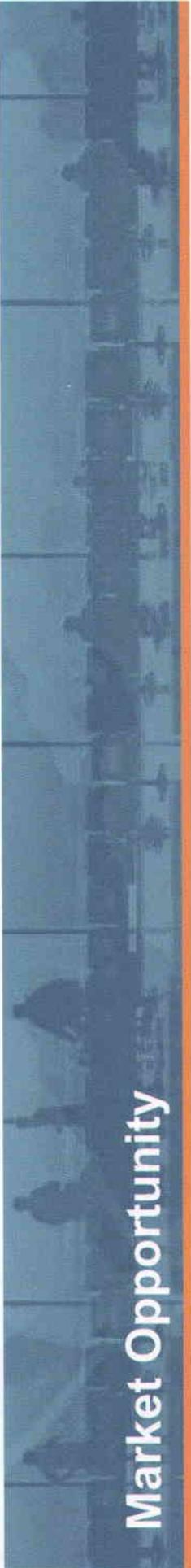
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Introduction

- ◆ **The Government of Trinidad and Tobago (GORTT), through the wholly owned Caribbean Airlines (CAL), based at Piarco Airport in Port of Spain, Trinidad, has expressed an interest in establishing a third party MRO operation**
 - Focusing on C-checks for the 737NG and ATR-42 turboprop
 - Component repair and outsourced line maintenance are other areas of maintenance services that are under consideration

- ◆ **CAL seeks to create an independent, joint venture company for the MRO, with a highly experienced JV partner**



Market Opportunity

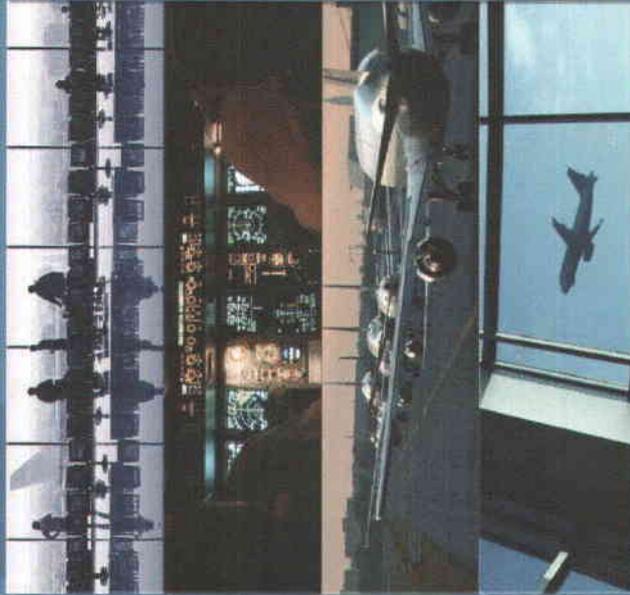
- ◆ **Airlines in the Caribbean region have few competitive options for outsourced maintenance in the region, and currently are forced to send their aircraft farther afield for servicing, often to North America**
- ◆ **The last two decades have seen a large increase in the amount of heavy maintenance work outsourced by U.S. airlines to lower cost MRO shops in Mexico and Central America – and an MRO center at Piarco would offer many of the same labor and logistics cost advantages**
- ◆ **The current MRO market in North America, Central America and the Caribbean is estimated at USD \$16.9 billion**

Caribbean Airlines MRO - Key Advantages for Developing Third Party Business

- ◆ **Optimum Geographic Location to Serve Carriers in Caribbean, Central America, North America and South America**
- ◆ **Existing “C-Check” Capability on Aircraft in Wide Use in Customer Catchment Area**
 - 737NG, Dash-8 and in future, ATR
 - 737NG's are expected to account for USD \$3 billion in MRO spend in the Americas by the middle of this decade
- ◆ **Much Lower Labor and Logistics Costs Compared to MRO's in North America**
 - Labor Rates Estimated to be 30% to 50% Below North American MRO Rates
 - Significantly reduced or eliminated aircraft ferry costs for airlines based in the region
- ◆ **New, State-of-the-Art Facility to be Developed**
- ◆ **Caribbean Airlines (CAL) as the Anchor Customer**
 - Current fleet: 10 737-800's, 5 Dash-8 Q300's
 - Orders: 9 ATR-42-600's
- ◆ **Additional Activity Likely from Air Jamaica, 100% Owned by Caribbean Airlines**
 - Current fleet: 5 A319/A320/A321, 1 737-800
- ◆ **Well-Trained, Skilled, Productive, English-Speaking Workforce**
- ◆ **Trinidad and Tobago Have FAA Category 1 Status**

The Government of Trinidad and Tobago Offers Important Economic and Business Development Programs and Incentives

- ◆ Tax Holidays on Manufacturers
- ◆ The Foreign Investment Act of 1990 Permits Full Foreign Ownership of Companies
- ◆ Necessary Laws for Establishment of Free Trade Zones are in Place
- ◆ Incentives That Apply to Commercial Real Estate, Including an Allowance Against Taxable Income of 15% of Construction Costs for Commercial Properties
- ◆ Other Tax Incentives for Private Investment



Recommended Concession Structure, Partner Selection Criteria and Timetable

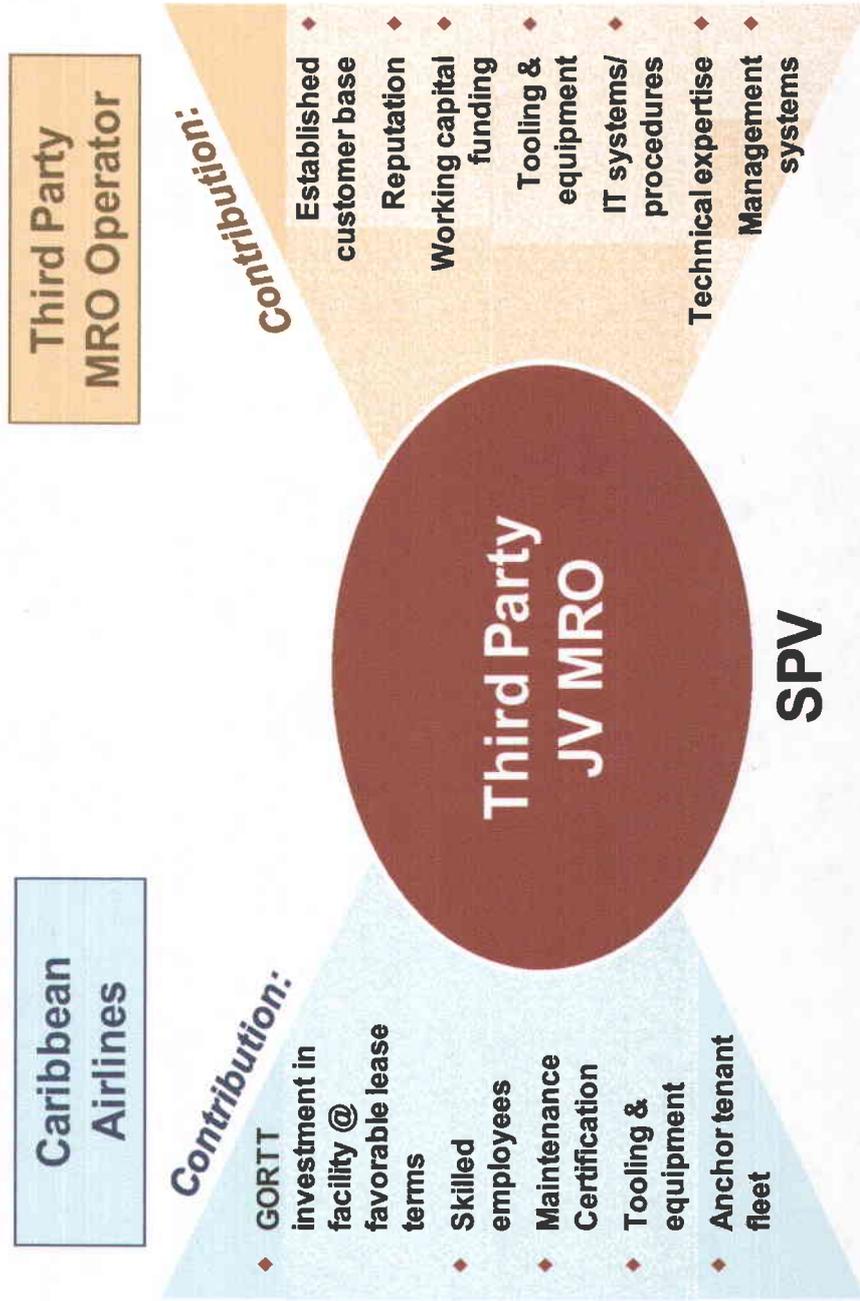
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Recommended Concession Structure

- ◆ **The Government of Trinidad and Tobago (GORTT) is proposing to pay for the facility and infrastructure upfront, and recover the cost of the facility through rental payments**
- ◆ **Success fee payments from the JV enterprise to the government are envisioned, to provide the potential for further recovery of some of the infrastructure costs**
- ◆ **The structure would be a long-term lease by the joint venture enterprise:**
 - 20-year period
 - Fixed annual rental payments
 - Success-sharing fee payment, based on aircraft throughput

Envisioned Contribution of Each Party to the Joint Venture MRO Enterprise



Key Criteria for JV Partner Selection

- ◆ **Ability of the partner to assist in financing facility expansion, tooling/equipment acquisition and upgrades**
 - Via equity stake in a JV operation
 - Via access to financing at preferential rates and terms
- ◆ **Ability and incentives of the partner to drive business to the Piarco facility**
 - Moving existing customer business
 - Attracting new customers, providing marketing assistance
 - Can the partner guarantee that a minimum level of 3rd party business will flow to the Piarco MRO?
- ◆ **Ability and incentives of the partner to offer improvements to the Piarco operation**
 - Willingness to designate the Piarco operation as a “center of excellence” for certain capabilities, for which Piarco would become the selected facility in the partner’s network
 - *E.g., specific airframe types, component maintenance and/or modification activities, etc.*
 - Joint efforts to improve capabilities, efficiency and productivity
 - Willingness and ability to leverage procurement strength, in helping the Piarco operation to acquire needed tooling, equipment and materials
 - Willingness and ability to offer training
 - Willingness to develop the Piarco facility’s marketing capabilities
 - Assistance in upgrading IT capabilities

Key Criteria for JV Partner Selection, Cont'd.

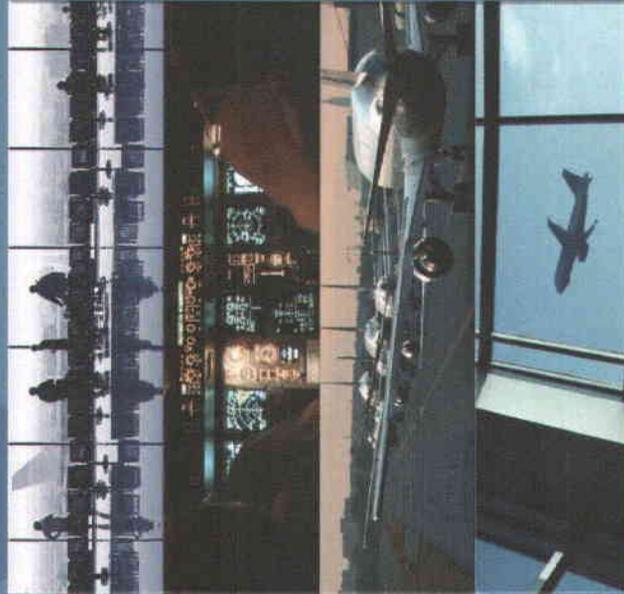
- ◆ **Implied value of the equity stake the partner is willing to provide**
- ◆ **Required equity to be provided by Trinidad stakeholders, including Caribbean Airlines and/or GORTT**
- ◆ **Value and terms of the proposed partnership from the Trinidad stakeholders' perspective**
 - Based on a detailed forecast of future activity, revenue generation and cash flow that the facility can generate
- ◆ **Duration of the agreement**
- ◆ **Ownership and governance structure**

A Negotiated Agreement is Targeted for the Beginning of 2013, with Completion of the New Facility by 2015

Proposed Timing of Tender Process and Facility Construction

Party	2011		2012		2013		2014	
	6 months	6 months	6 months	6 months	6 months	6 months	6 months	6 months
AATT	Finalize MRO Infrastructure Plan			Tender Process		Airside Construction Improvements		
CAL	Identify/Select JV Partner		Negotiate JV Agreement - CAL MRO Spinoff			Implement JV Business		
Ministry of Works & Transport	Procure GORTT Funding		Oversee Development Process					

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Current Maintenance Facility

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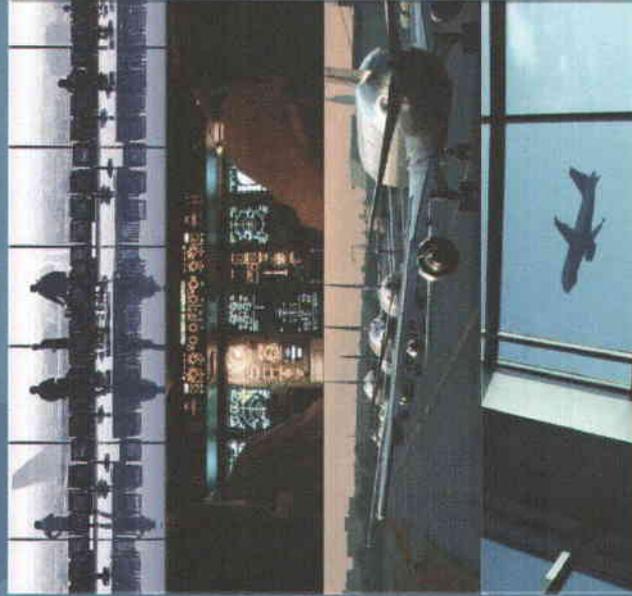
Aerial Photograph of Piarco Airport, Including Current CAL Maintenance Facilities



CAL MRO Complex

Caribbean Airlines' Current Aircraft Maintenance Facility - Overview

- ◆ **Location:**
 - North side of Threshold 10 at Piarco Airport
- ◆ **Current facilities:**
 - Two covered, but open, hangars where maintenance is performed, with a total of 5,400 m²
 - Attached office and storage areas
 - Maintenance facility for small aircraft west of the two main hangars
 - Avionics repair facility
- ◆ **Capabilities include “C Checks” on Caribbean Airlines’ fleet types:**
 - Current: Boeing 737NG and Bombardier Dash 8-100/200/300
 - Planned: ATR-42-600



Proposed New Maintenance Facility

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Planned New Facility – Rationale and Planned Location

- ◆ **Rationale:**
 - Current facility blocks extension of taxiway to runway threshold
 - Existing open hangars suboptimal for maintenance, susceptible to elements
 - Limited capacity for accommodating Third Party work
 - Limited room for future expansion
- ◆ **Location of Planned New Facilities:**
 - Southeast Airport Zone, east of North Terminal, north of runway
 - Unimpeded area with ample room for expansion

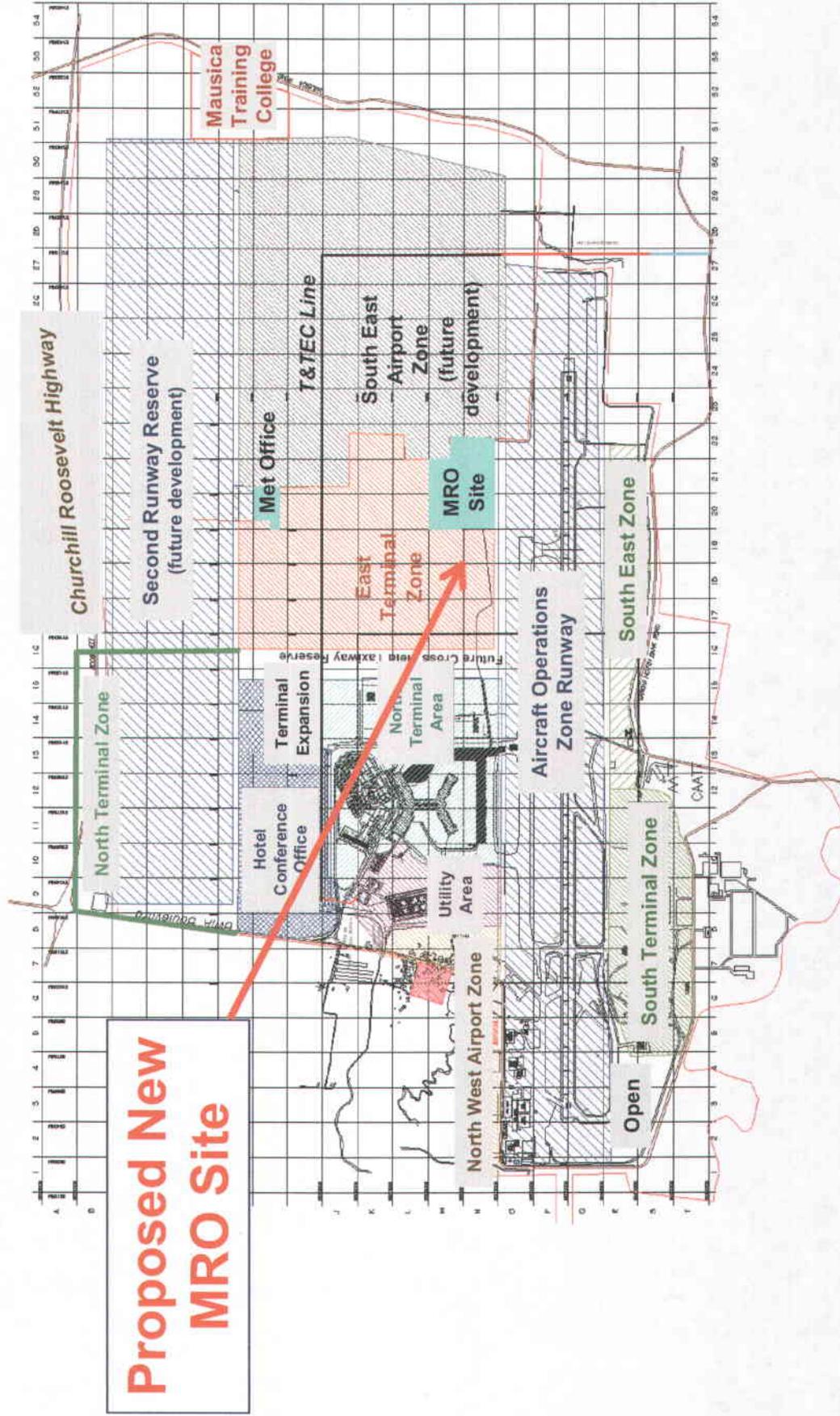
Planned New Facility – Requirements

- ◆ **Upgraded and larger facilities are required, to ensure that it has sufficient capacity and complies with the highest quality and safety standards**
- ◆ **The current hangars can accommodate two maintenance lines, but an additional 1-2 lines would be required for economies of scale in a third party operation**
- ◆ **All hangars should be enclosed, per FAA and JAR rules**
- ◆ **The new facility location should have sufficient room for future expansion, potentially including a widebody-capable hangar**
- ◆ **The Third Party MRO must deliver high quality and high value service to customer carriers, with a particular focus on safety and turn time, at competitive rates**

Planned New Facility – Proposed Specifications

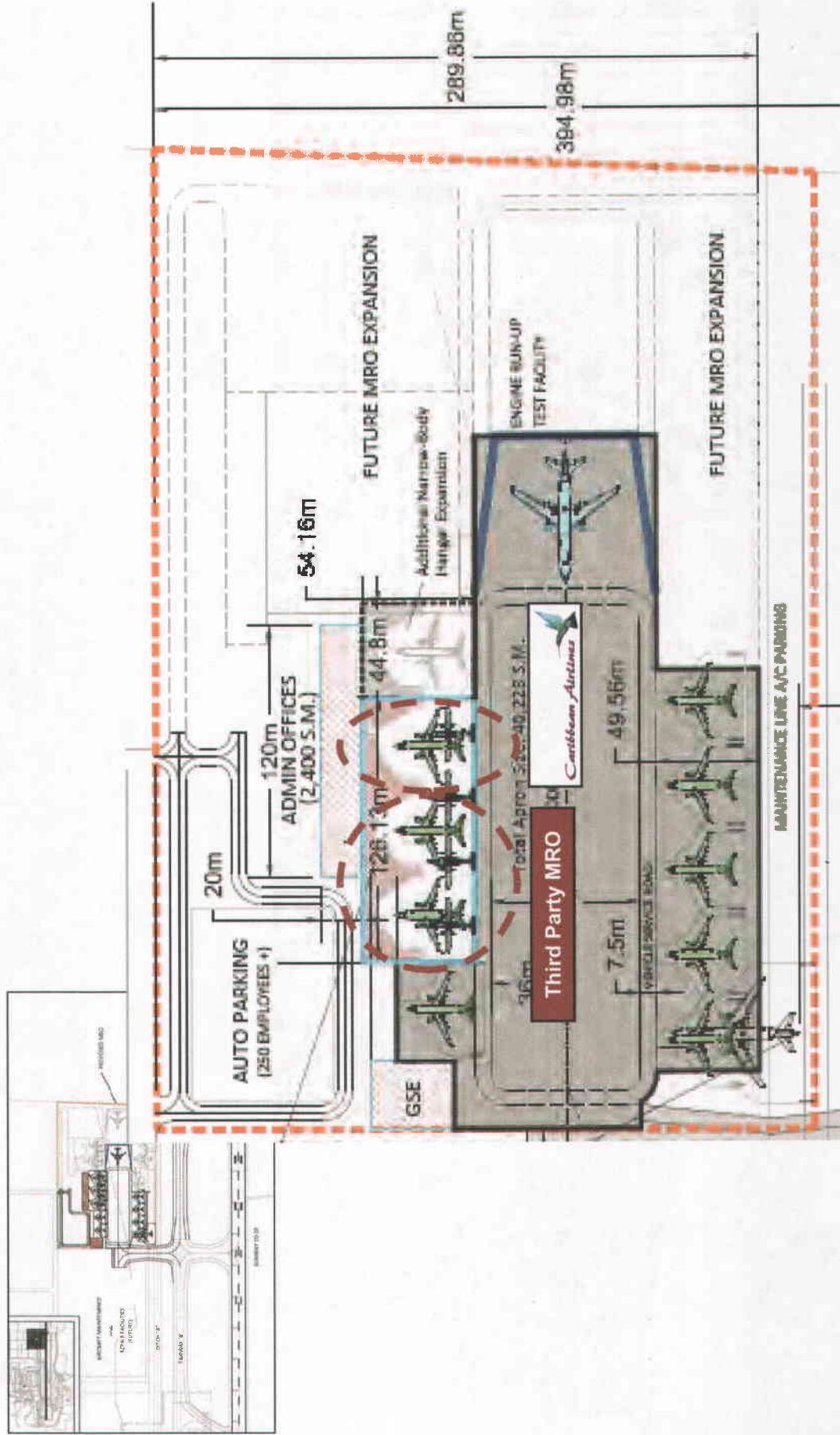
- ◆ **Hangar capable of accommodating up to 3 narrowbodies, or 1 widebody plus 1 narrowbody aircraft**
 - One bay will be dedicated to Caribbean Airlines' in-house maintenance (including that of the Air Jamaica fleet), while the other two bays will accommodate CAL overflow activity and support third party work
- ◆ **Proposed facility area is 6,760 m² total, including a 1,850 m² workshop facility**
- ◆ **Parking apron able to accommodate 4-6 narrowbodies, 39,750 m²**
 - Including an engine run-up/test facility
- ◆ **Administrative facility, 2,400 m²**
- ◆ **GSE storage area**
- ◆ **Entrance taxiway**
- ◆ **Roadway access and automobile parking**
- ◆ **Provision for future enclosed widebody maintenance area**
 - 10,500 m² hangar capable of accommodating 1 widebody and 1 narrowbody, or 1 narrowbody plus 4 turboprops
- ◆ **Provision for future widebody parking area**
 - Able to accommodate 3 widebodies and 5 narrowbodies, 14,500 m²
- ◆ **Provision for future taxiway extension**

Proposed Location of New Maintenance Facilities

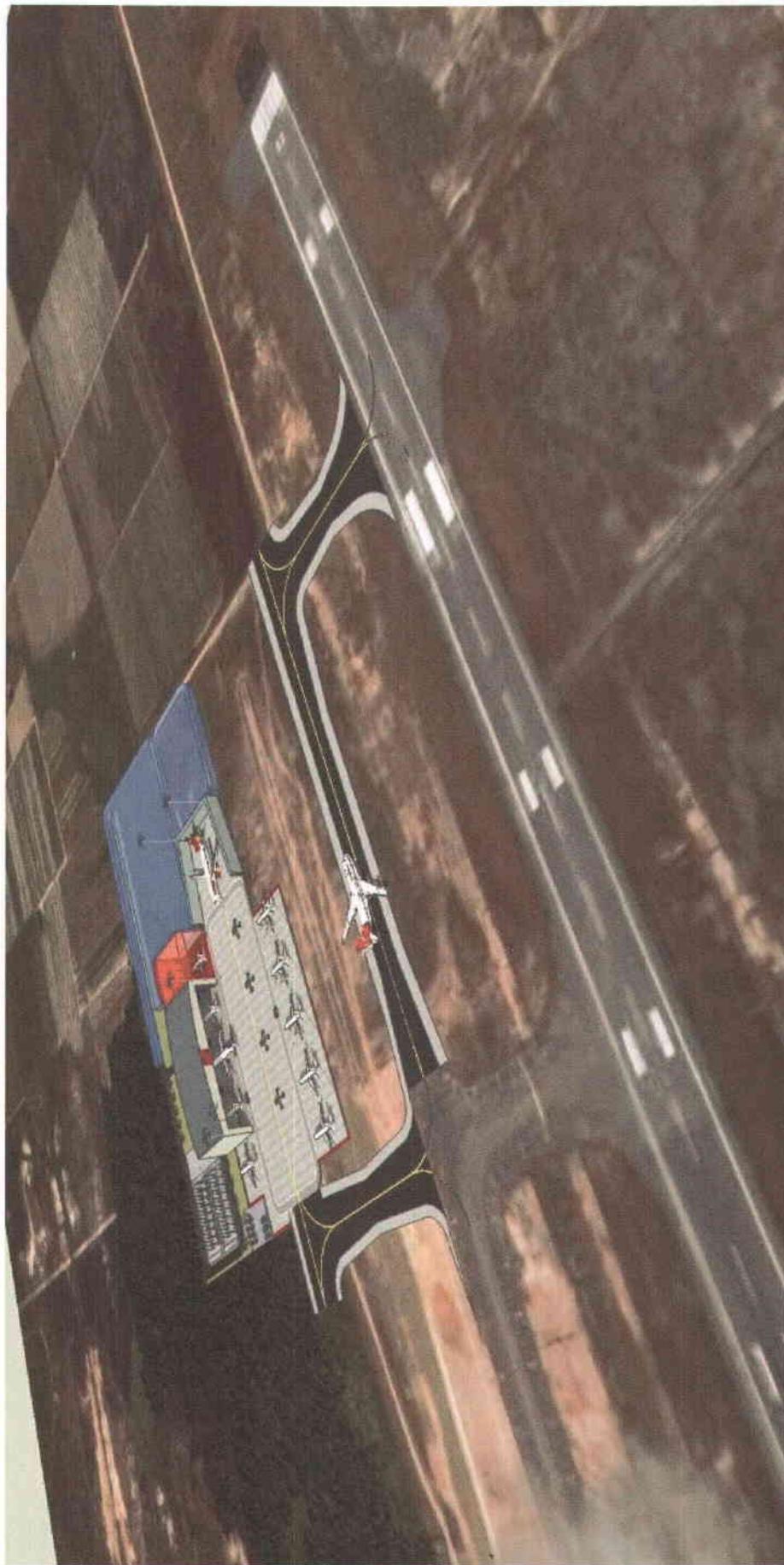


**Proposed New
MRO Site**

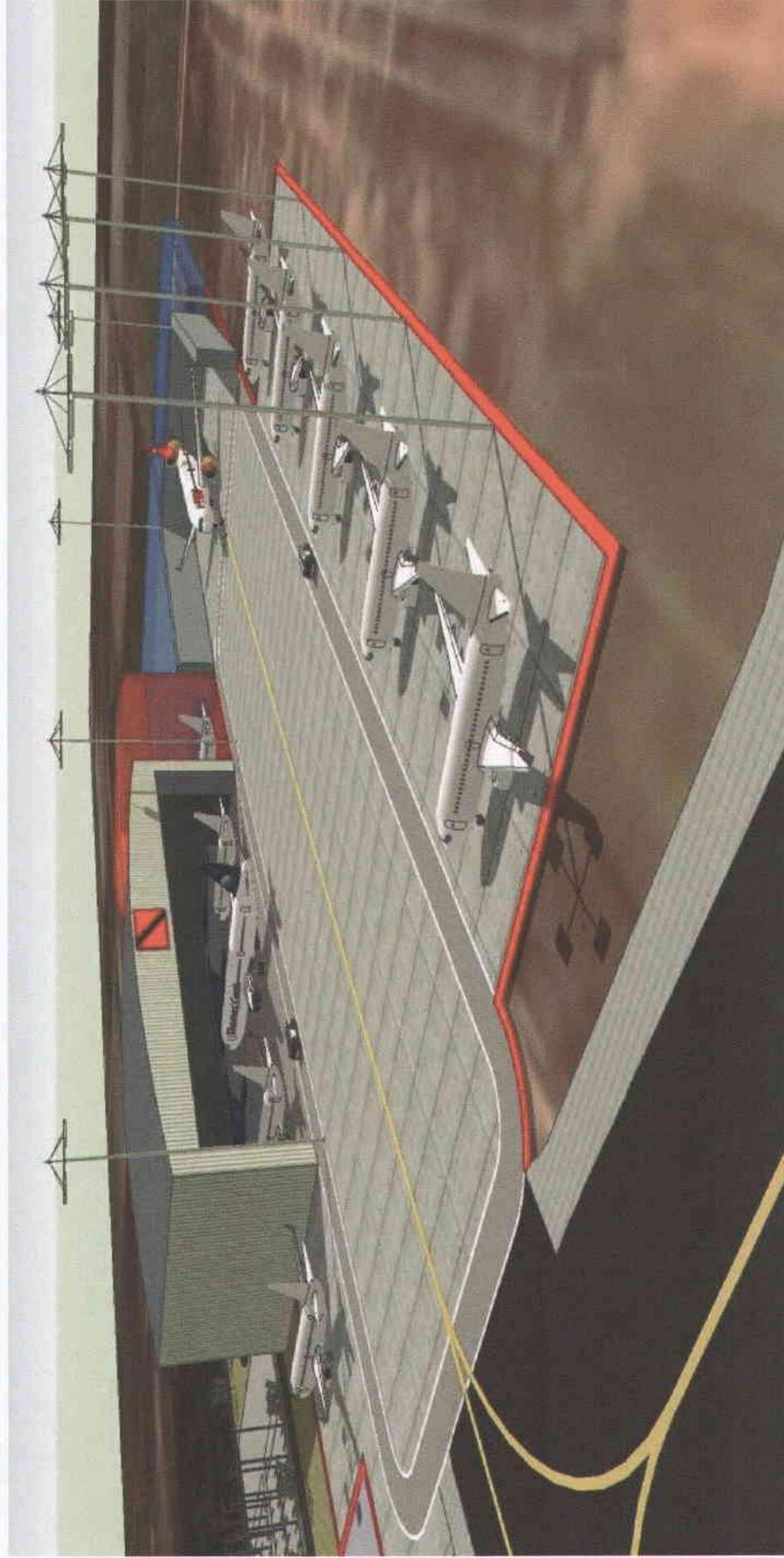
Proposed Layout of New Maintenance Facilities



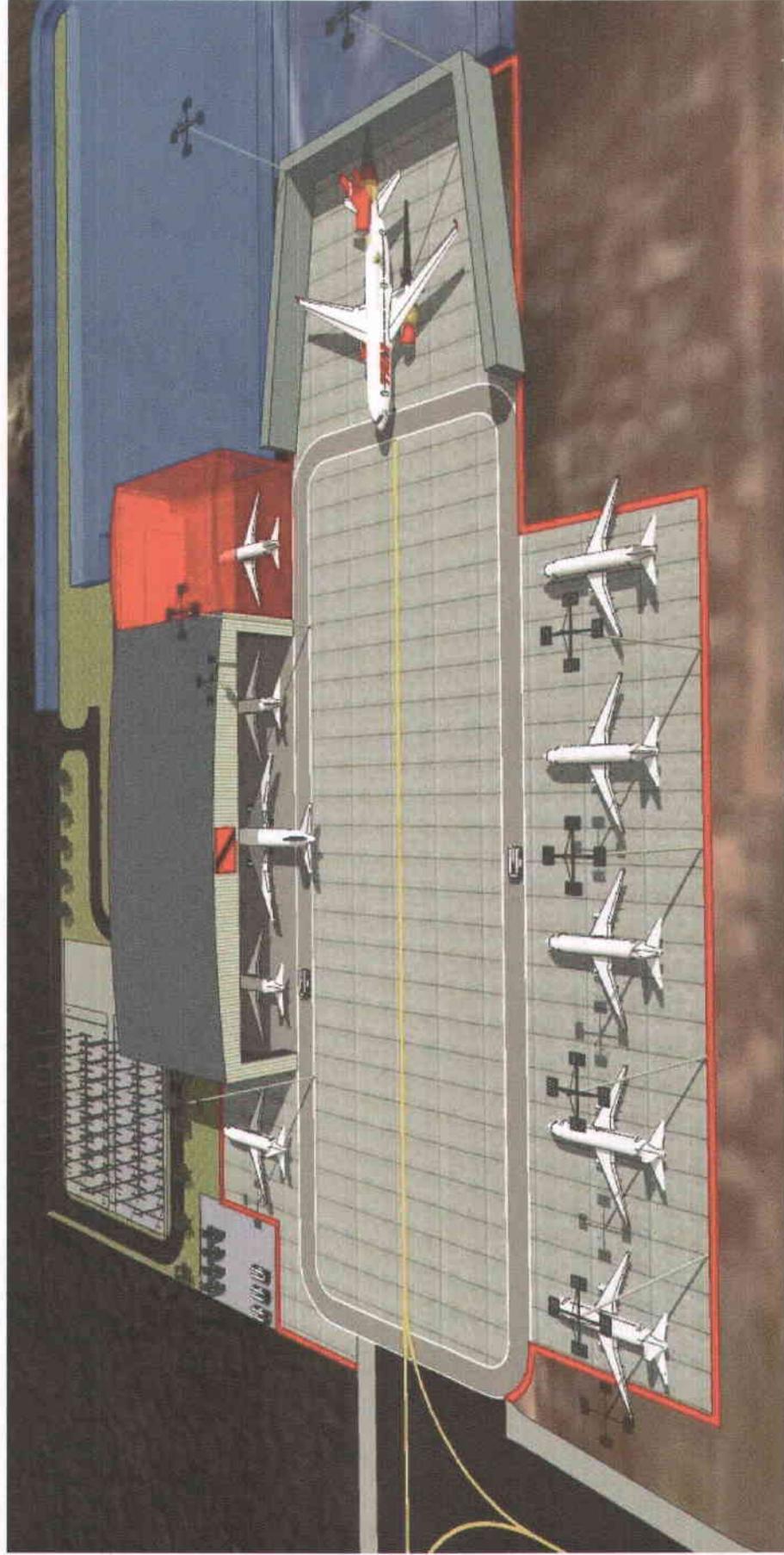
Proposed Facilities - Renderings



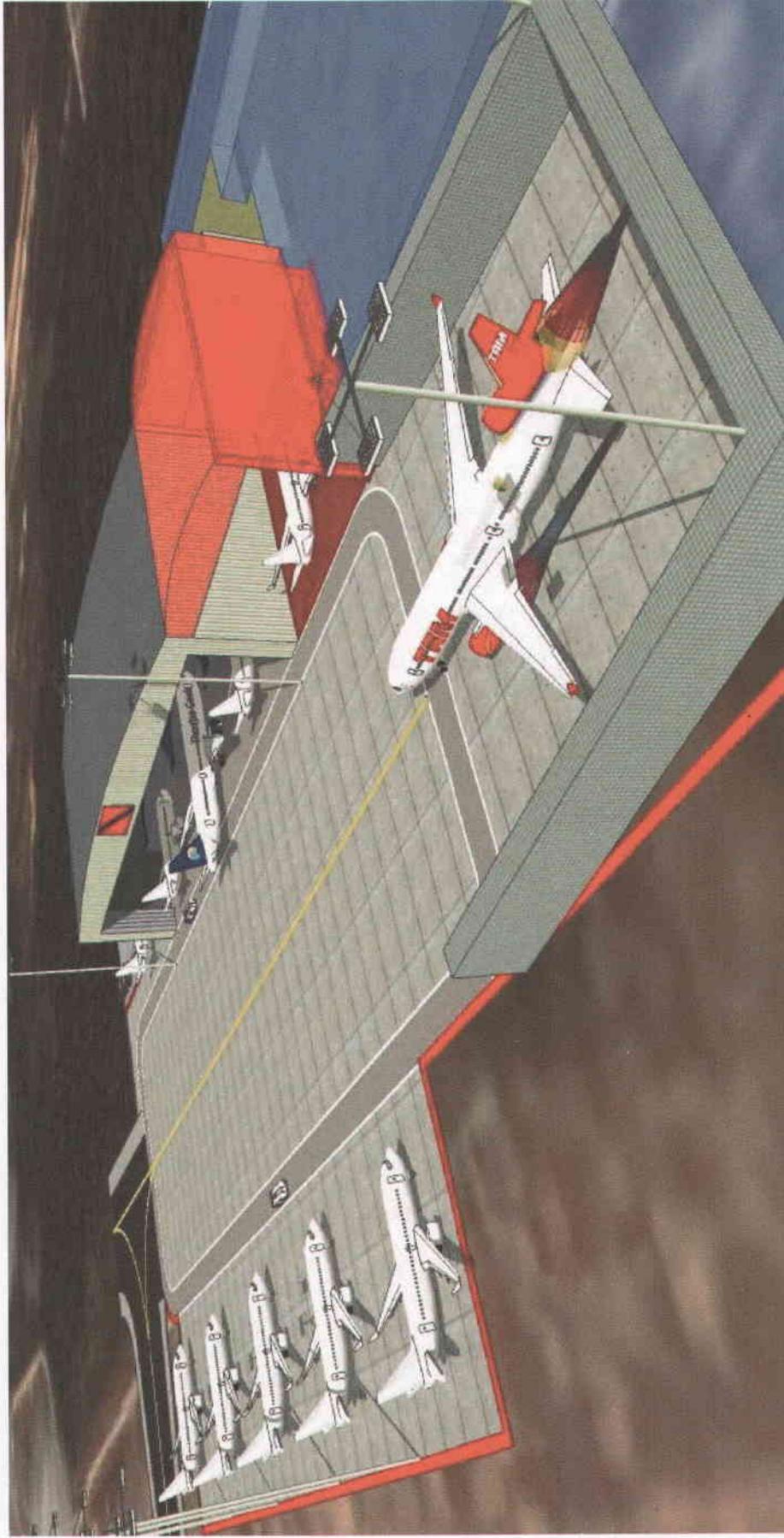
Proposed Facilities – Renderings, Cont'd.



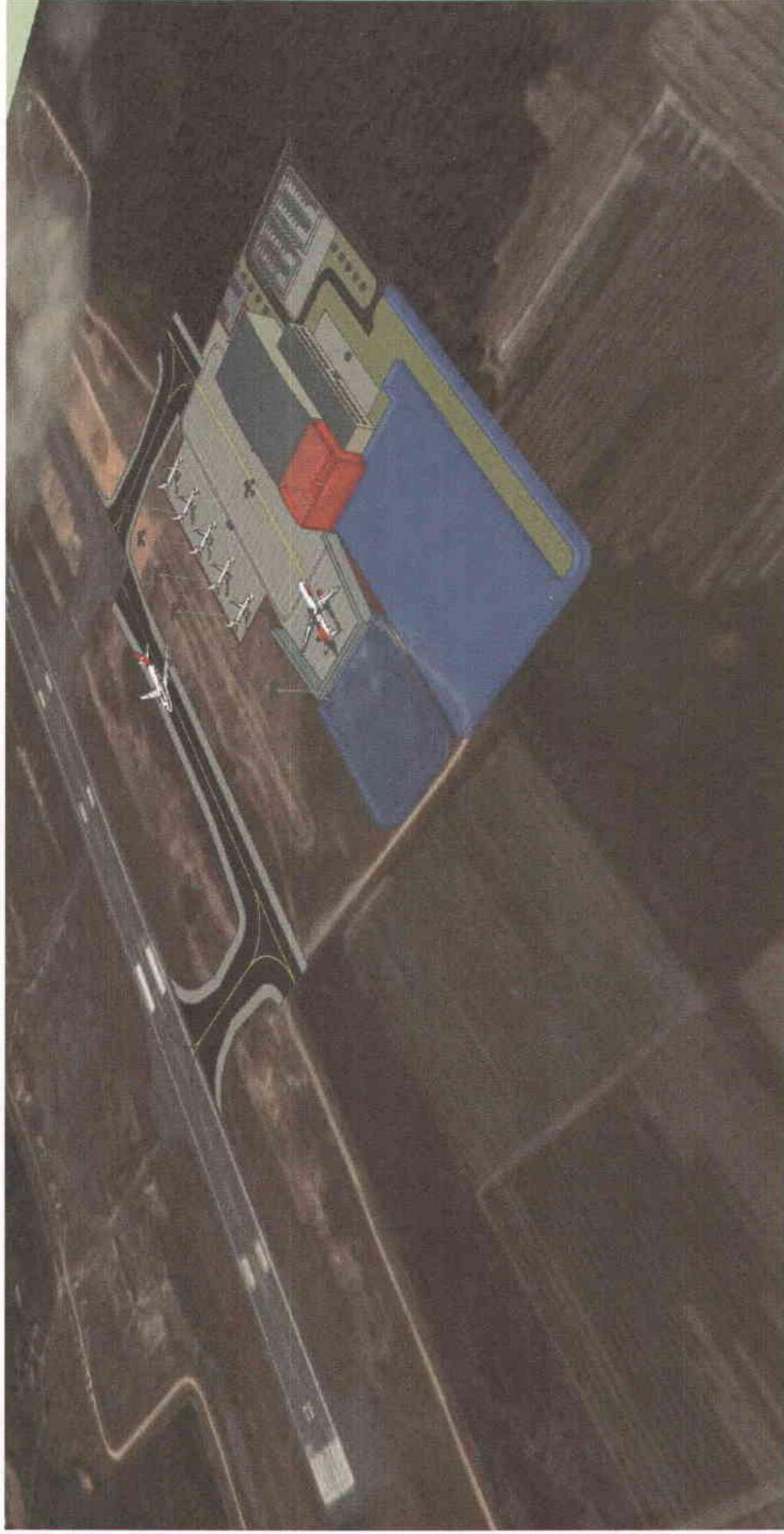
Proposed Facilities – Renderings, Cont'd.



Proposed Facilities – Renderings, Cont'd.



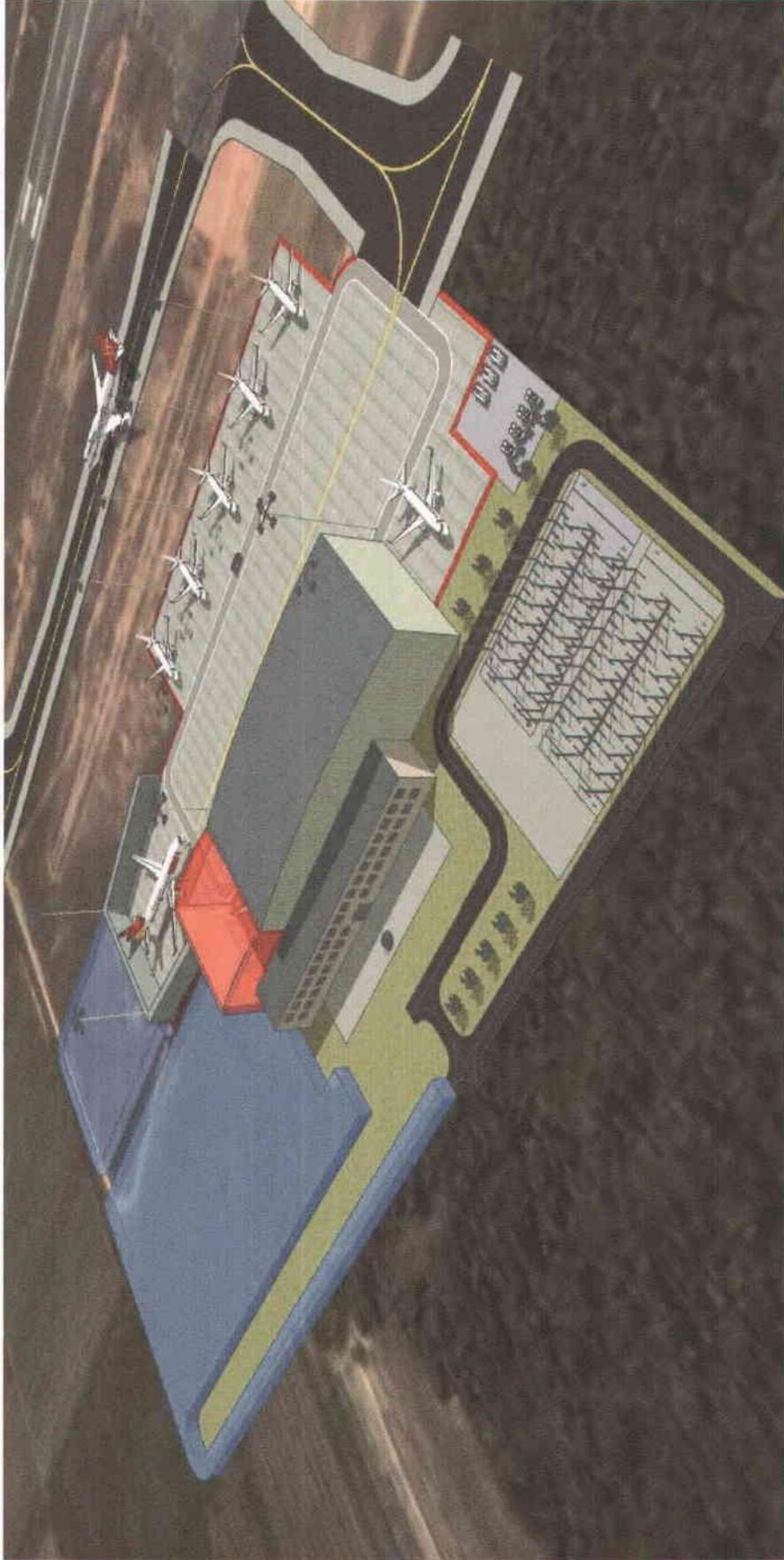
Proposed Facilities – Renderings, Cont'd.



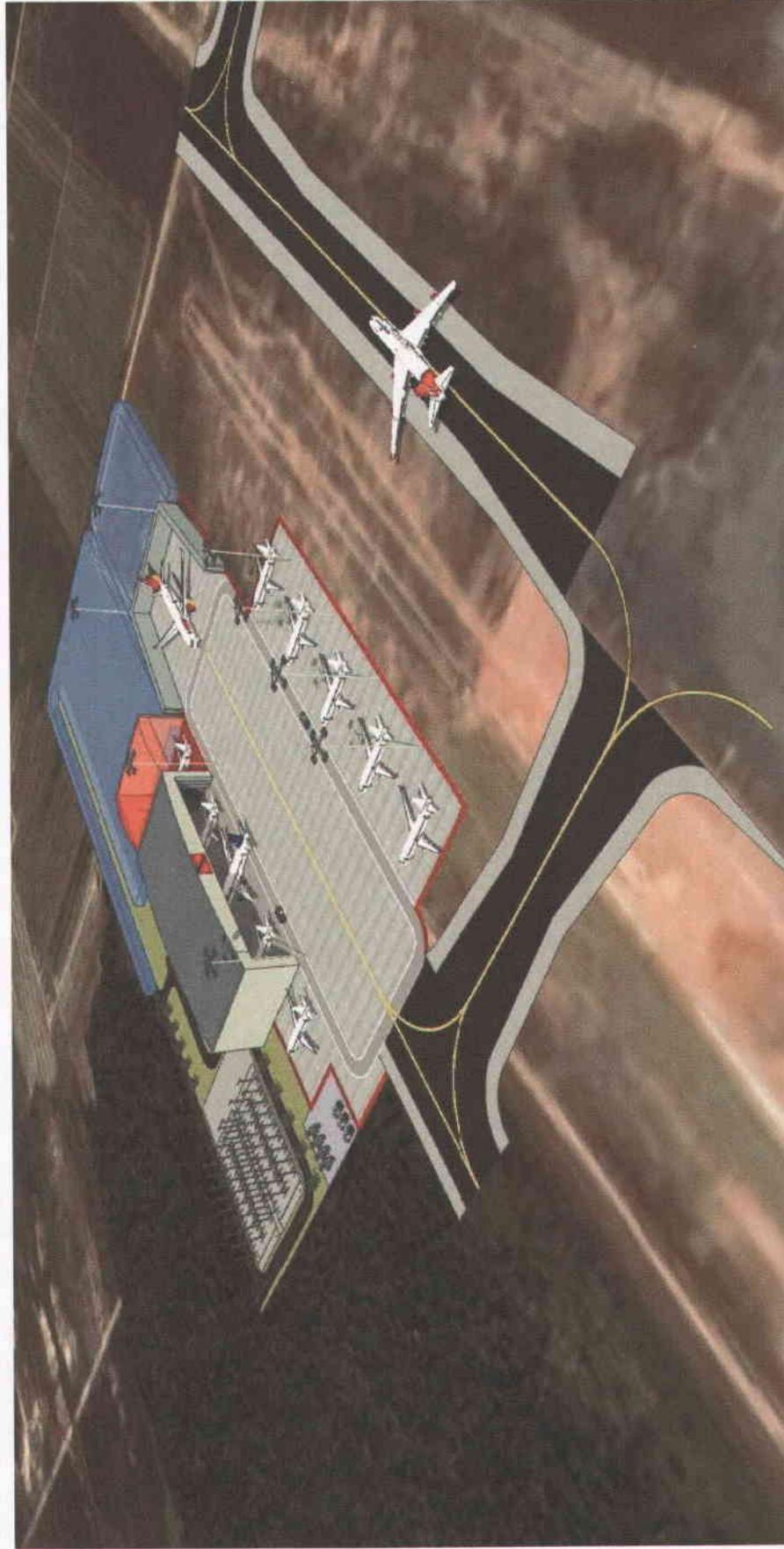
Proposed Facilities – Renderings, Cont'd.



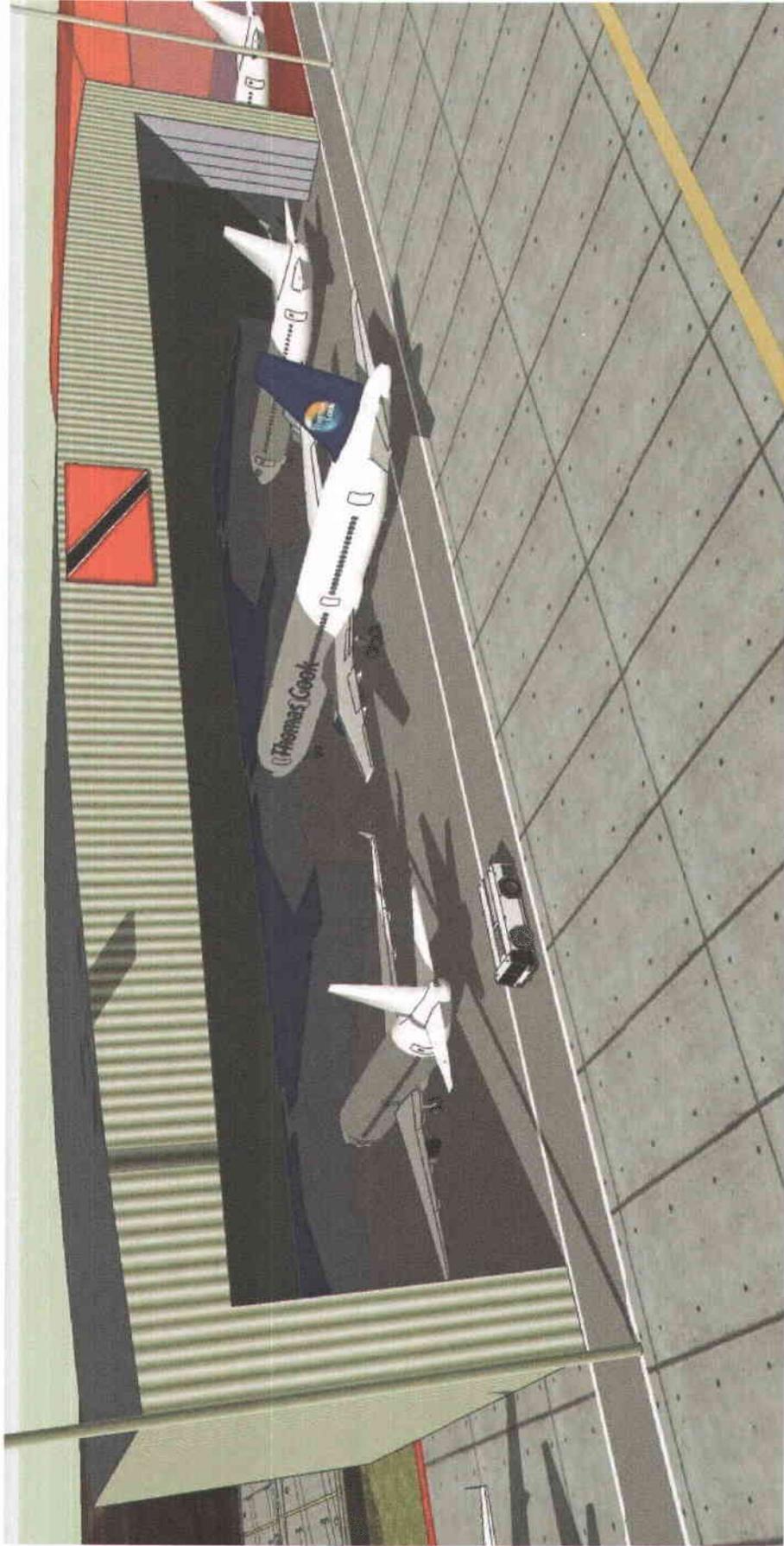
Proposed Facilities – Renderings, Cont'd.



Proposed Facilities – Renderings, Cont'd.



Proposed Facilities – Renderings, Cont'd.



Proposed Facilities – Renderings, Cont'd.



Proposed Facilities – Renderings, Cont'd.





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Appendix I: FINANCIAL MODEL (Confidential)

rrivals



