2015 FACT FINDING BRAZIL

Advancing your Aerospace and Airport Business
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INTRODUCTION

Brazil has great ambitions in aviation. It has one of the largest aircraft manufacturers in the world, Embraer, and it is home to some of the largest airports in the region. The Netherlands have focussed on cooperation with Brazilian government organisations and private industries for many years. This resulted in a Memorandum of Understanding which was signed on December 9th 2013 by Mr. W. Moreiro Franco, Minister of Civil Aviation of Brazil, and Mrs. Wilma Mansveid, Minister for the Environment of the Netherlands.

Even though Brazil is currently in a challenging phase of economic recession and in a battle with corruption, it still has the potential to have a flourishing aviation industry. Because of this outlook, combined with its ambition of upgrading / building 270 airports to develop regional aviation, and within the scope of the current MoU, the Embassy of the Netherlands in Brazil has taken the initiative to make a fact finding into Brazil’s Airport Development & Infrastructure sector. The fact finding has been organised in cooperation with Netherlands Enterprise Agency (RVO) and NAG.

Within the segment of Airport Development & Infrastructure a focus on Air Cargo and Airport Safety & Security had been agreed with the Secretaria de Aviação Civil (SAC) since these are the most pressing items where a potential cooperation was discussed.

Four Dutch organisations joined the fact finding to share their experiences in the seminar “Airport Cargo, Safety & Security: a Dutch perspective” and to invest in their local network.

**NACO** – www.naco.nl
Global provider of airport planning, airport design and airport engineering services.

**NLR** – www.nlr.org
National aerospace laboratory with a focus on identifying, developing and applying advanced technological knowledge in the area of aerospace.

**SACO** – www.saco.aero
Specialized in the development, production and delivery of air cargo handling and storage systems.

**To70** – www.to70.com
Aviation consultants providing research and advisory services to the global aviation community.

This joint fact finding have resulted in an overview of developments in aviation in Brazil. An overview of contact made during this fact finding can be found under references and useful links.

The fact finding was executed under the Partnership for International Business (PIB) programme of the Netherlands Enterprise Agency (RVO).
PROGRAM

The program for the 2015 fact finding into the Brazilian airport developments was organised by the Embassy of the Netherlands in Brasilia in cooperation with Netherlands Enterprise Agency and NAG. It included site visits, B2B meetings, workshops and a seminar on Airport Cargo, Safety and Security.

FACT FINDING MISSION AVIATION
25 - 29 October 2015
São Paulo - Brasília - Rio de Janeiro

SUNDAY OCTOBER 25 (SÃO PAULO)

19:05   Arrival in São Paulo - Guarulhos International Airport (KLM791)
19:30   Transfer to hotel Transamérica Faria Lima (by taxi*)
21:00   Introduction meeting
22:00   End of program

MONDAY OCTOBER 26 (SÃO PAULO)

08:00   Transfer from São Paulo to São José dos Campos
09:45   Arrival in São José dos Campos (Location: SJC City Hall)
10:15   Welcome by Colonel Cavali and Colonel Mateus
        Introduction Municipality of SJC/SDE and Aerospace and Defence
        Presentation ITA, focus on Airports Safety and Security:
        Prof. Anderson - Vice-Rector for International Cooperation
        Prof. Donizetti - Expert in Aeronautic and Security
        Presentations by participants of the Dutch delegation
        Q&A
        Conclusions and proposal agenda for next steps
12:00   Transfer from SJC City Hall to Guarulhos International Airport
15:00   Arrival at GRU Airport (+ interpreter)
        Meeting with Mr. Mauricio Pontes - Security Manager GRU Airport and his team
        Technical visit of airport facilities
17:00   Transfer from GRU Airport to hotel
19:30   Transfer from hotel to Restaurant Barbacoa
20:00   Networking dinner
22:30   End of program

TUESDAY OCTOBER 27 (SÃO PAULO)

08:00   Transfer from São Paulo to Campinas
09:45   Arrival in Campinas - Viracopos International Airport
10:00   Meeting with Cargo, Safety and Security managers of the airport
        Site visit of the airport
12:30   Transfer from Viracopos to São Paulo
15:00   Arrival at Congonhas Airport (+ interpreter)
15:10   Meeting with Cargo, Safety and Security managers of the airport
        Mr. Walter Stanisci - Coordenador de Proteção Contra Atos Ilícitos
        Site visit of the airport & collect luggage
18:15   Flight GOL to Brasilia (GG 1416)
End of program
WEDNESDAY OCTOBER 28 (BRASÍLIA)

08:55 Walking to SAC
Setor Comercial Sul - B, Quadra 9, Lote C Edifício Parque Cidade Corporate - Torre C - 6º

09:00 Reception and handing over of identification badges

09:30 Opening Seminar “Airport Cargo, Safety & Security: a Dutch perspective”
Mr. Guilherme Walder Mora Ramalho – Executive Secretary of the Secretariat of Civil Aviation
Mr. Han Peters - Ambassador of the Kingdom of the Netherlands
Mr. Sjoerd Keizerwaard - Head of Business Delegation

09:50 Presentation of the Netherlands Aerospace Group – NAG
Mr. Sjoerd Keizerwaard - NAG

10:00 Aviation 2.0 - Performance Oriented Research and innovation for sustainable growth of Brazilian aviation from a Dutch perspective
Mr. Louis Aartman & Mr. Michel Piers – NLR
Mr. Jan van Galen - To70

10:40 Q&A

11:00 Coffee break

11:20 NACO’s approach to airside safety
Mr. Paul Govaerts - NACO

11:40 Solving your air cargo handling challenges
Mr. Hans van Schaik - SACO

12:00 Q&A

12:20 Closing session
Mr. Paulo Henrique Possas – Director of the Department of Airport Management of SAC
Mr. Nasrat Popal – Program Manager of Partners for International Business

14:00 Workshops
Air Cargo
Mr. Marcelo de Souza Carneiro Lima - Operation Manager ANAC
Safety & Security
Mr. Carlos Eduardo Gomes Souza - Division Chief (SAC)

16:00 Conclusions & Follow-up

16:30 Transfer to Brasilia Airport

17:00 Technical visit of airport facilities
Mrs. Jennifer Campos (TBC)

20:23 Flight to Rio de Janeiro (JJ 3531)
End of program
THURSDAY OCTOBER 29 (RIO DE JANEIRO)

07:30 Transfer to DECEA
08:30 Meeting with DECE
Welcome by Brig. Eng. Fernando Cesar Pereira Santos
Presentation from DECEA
Presentations from the Dutch Companies
Technical visit to CGNA
Corporal Engineer Fernando Cesar Pereira Santos - Chefe do Subdepartamento Técnico
Aviator Colonel Leandro Costa Andrade - Adjunto do SDTE
Lieutenant Colonel Engineer Alessander de Andrade Santoro - Chefe da Divisão de Tecnologia e Segurança da Informação – TI/SI
Lieutenant Colonel André Eduardo Jansen - Adjunto da Divisão de Delineamento Técnico
13:30 Transfer to Galeão Airport
14:00 Technical visit and round table meeting at the Galeão Airport
Prédio Anexo da UAC at Rio Galeão.
Mrs. Alessandro Oliveira - Safety & Security Manager
Mrs. na Torrontegui - Manager Strategic Development
Mr. Gilberto Ribeiro - Cargo Coordinator
Mr. Carlos Rodriguez – Operations Manager
16:00 Conclusive meeting at Rio Aeroporto Hotel
17:00 Transfer to hotel or check in flight to the Netherlands
18:00 End of mission
MARKET OVERVIEW

AIRPORTS IN BRAZIL
Brazil is home to an amazing 657 public airports that are officially registered by the National Civil Aviation Authority (ANAC). However most of the nation’s air traffic is concentrated in 65 airports that serve as international and regional hubs. 31 of these airports handle over one million passengers annually (2014).

To strategically develop the airport infrastructure a government program was launched in 2012 to construct or upgrade 270 airports around the country. These developments are mainly focussed on developing the more remote areas of the country. Out of these 270 airports to be developed, 255 are existing airports to be upgraded. The plan is to have 96% of the population living at most 100 km of a passenger terminal. Currently 40 million people are at a greater distance than this from an airport and only 77 regional airports operate commercial flights regularly. The investment program comes from the National Civil Aviation Fund (FNAC) and selection of companies responsible for studies and works is done by the federal government and there is no transfer of funds to states and municipalities. Recent economic struggles in Brazil have caused delay and uncertainty to this development program.

Another initiative, launched in 2011, was the federal airports grant program. This concession program was initiated to allow the upgrade and development of several international airports for the FIFA World Cup 2014. The airports of São Gonçalo do Amarante, Brasilia, Guarulhos, Campinas, Galeao (RJ), and Confins (MG) are currently under concession of (international) private sector companies. A 49% share is held by state government and managed by Infraero. Fortaleza (CE), Salvador (BA), Porto Alegre (RS) and Florianópolis (SC) are the next step in this program and conduct of the auctions is scheduled for the first half of 2016. The amounts raised in the auction will go to the National Civil Aviation Fund (FNAC) for investments in other airports.

In 2014 Brazil’s airports handled a total of 215.499.079 passengers, which was a 5.67% growth with respect to 2013. Guarulhos Airport in São Paulo is Brazil’s largest airport with a 18,1% share of this total.

TOP 10 AIRPORTS (2014) - BRAZIL

<table>
<thead>
<tr>
<th>AIRPORT</th>
<th>PASSENGERS NUMBERS (MILLION)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SÃO PAULO GUARULHOS AIRPORT</td>
<td>39,8</td>
</tr>
<tr>
<td>BRASÍLIA AIRPORT</td>
<td>18,1</td>
</tr>
<tr>
<td>SÃO PAULO CONGONHAS AIRPORT</td>
<td>16,1</td>
</tr>
<tr>
<td>RIO DE JANEIRO GALEÃO AIRPORTLAGOS, BELO</td>
<td>17,3</td>
</tr>
<tr>
<td>HORIZONTE INTERNATIONAL AIRPORT</td>
<td>10,8</td>
</tr>
<tr>
<td>RIO DE JANEIRO SANTOS DUMONT</td>
<td>9,9</td>
</tr>
<tr>
<td>CAMPINAS VIRACOPOS AIRPORT</td>
<td>9,8</td>
</tr>
<tr>
<td>SALVADOR INTERNATIONAL AIRPORT</td>
<td>9,6</td>
</tr>
<tr>
<td>PORTO ALEGRE AIRPORT</td>
<td>8,5</td>
</tr>
<tr>
<td>CURITIBA AIRPORT</td>
<td>7,8</td>
</tr>
</tbody>
</table>

Source: Secretaria de Aviação Civil
The main airlines in Brazil are:
- TAM:
  Part of the Chilean LATAM Airline Group and Brazil's largest operator. In 2014 TAM had 38.1% of the domestic and 78.82% of the international market shares in terms of passengers per kilometre flown. TAM's current MRO operation is located in São Carlos but it is scheduled to open a new MRO hangar at Guarulhos in 2017.

- Gol:
  2nd largest airline of Brazil and the 2nd best low-cost airline of South America. Gol has its own MRO facility at Belo Horizonte International Airport. Codeshare partner of Air France/KLM.

- Azul:
  is currently the third operator in Brazil, but is gaining momentum and market share because TAM/LATAM is struggling to realize all the promised synergies promised to investors and governments.

- Avianca Brazil is part of the Avianca group and part of the Star Alliance. Its main bases are Brasilia and Guarulhos airports.

AIR CARGO IN BRAZIL
Brazil's current economic recession has caused total numbers for air cargo to decrease in 2013 and 2014. In 2014 Brazilian airports handled a total of 1.452.717 metric tons of cargo, which was a 3.42% decrease as compared to the previous year. The airports of Guarulhos and Campinas had a combined share of over 50% of the total air cargo market in Brazil. As a comparison, Amsterdam Airport Schiphol handled a total of 1.670.676 metric tons of cargo in 2014. Over three times the amount of Brazil's largest cargo airport, Guarulhos.

TOP 10 CARGO AIRPORTS (2014) - BRAZIL

<table>
<thead>
<tr>
<th>Airport</th>
<th>Cargo (Metric tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>São Paulo Guarulhos Airport</td>
<td>554,564</td>
</tr>
<tr>
<td>Campinas Viracopos Airport</td>
<td>223,280</td>
</tr>
<tr>
<td>Manaus Airport</td>
<td>142,529</td>
</tr>
<tr>
<td>Rio de Janeiro Galeão Airport</td>
<td>118,102</td>
</tr>
<tr>
<td>São Paulo Congonhas Airport</td>
<td>44,292</td>
</tr>
<tr>
<td>Guararapes Recife Airport</td>
<td>44,247</td>
</tr>
<tr>
<td>Fortaleza Airport</td>
<td>43,979</td>
</tr>
<tr>
<td>Brasília Airport</td>
<td>40,628</td>
</tr>
<tr>
<td>Salvador International Airport</td>
<td>33,502</td>
</tr>
<tr>
<td>Belem Val de Cans Airport</td>
<td>27,703</td>
</tr>
</tbody>
</table>

Source: Albatross Airports Database
However, even though there has not been a growth in air cargo in 2013 and 2014, Brazil is still regarded a potentially great market for air cargo because of the size of the country, the potential of its economy and the amount of natural resources. Investments in air cargo infrastructure, air cargo management, connectivity and safety and security are to be made to develop the sector.

AEROSPACE INDUSTRY IN BRAZIL
Even though this fact finding focussed on airport development & infrastructure the aerospace industry in Brazil cannot be ignored. The Brazilian aerospace industry is the largest in the Southern Hemisphere with its biggest representative company being Embraer. The firm produces commercial, military and executive aircraft and is currently the 3rd major aerospace manufacturer in the world. The boom in the Brazilian Aerospace Industry in the past years has seen the country become well integrated into the global supply chain. Yet, the market still has opportunities to offer such as the aerospace maintenance and repair sub-sector which is enjoying an annual growth of 5-6% over the last few years. The worldwide trend of airlines replacing larger aircrafts with smaller jets should keep Embraer as the leader of this segment and will offer other business possibilities for aircraft component manufacturers. Expansion opportunities and better integration are expected in areas of supply chain and procurement, composites and metallic structures, automation technology, connectivity and MRO.

The aerospace industry in Brazil is mainly concentrated in the State of Sao Paulo. The State of Sao Paulo has the largest aerospace hub in Latin America which is located in the region of Sao Jose dos Campos. With around 100 facilities for aircraft manufacturing, the state accounts for 73% of Brazil units and 95% of employed persons.

Source: Aerospace Industries Association of Brazil (AIAB)
GOVERNMENT AUTHORITIES

In the first decennium of 2000 civil aviation in Brazil underwent a major restructuring. Where civil aviation fell under the Air Force’s Civil Aviation Department (DAC), it is now the responsibility of the Secretaria de Aviação Civil (SAC). The SAC has a ministerial status and is linked directly to the Presidency. In addition to SAC there are various other airport related government authorities within Brazil.
SAC, or the Civil Aviation Secretary, was established in 2011 for the purpose of coordinating and supervising actions for the strategic development of the civil aviation industry and airport infrastructure in Brazil. Currently the ministry is responsible for the deployment of the airport infrastructure plan as presented by President Dilma Rousseff in 2011. This involves the reorganisation of the way airports are organised including privatisations (concessions) and investments. The focus of this programme is to improve the quality of services and airport infrastructure and to develop regional aviation and general aviation.

The National Civil Aviation Agency - ANAC is responsible for civil aviation regulation and safety oversight in Brazil. Established in March 2006, ANAC incorporated staff, structure and responsibilities of the Department of Civil Aviation (DAC), the former civil aviation authority which fell under the responsibility of the Ministry of Defence. ANAC has the status of a regulatory agency and is now linked to the Civil Aviation Secretary. In line with other civil aviation authorities ANAC has its regulatory duties for airworthiness, flight standards and training. The department of Airport Infrastructure (Superintendência de Infraestrutura Aeroportuária – SIA) has responsibilities related to aerodromes concerning planning, safety, security and airport inspection. In line with these responsibilities, the main subdivision for airport development are:

**Engineering Division (Gerência de Engenharia de Infraestrutura Aeroportuária – GENG)**
Development of studies and technical guidelines concerning the improvement capacity of airport infrastructure, with programs to enhance the Brazilian aerodromes’ system, and the establishment of standards and rules for airport design and master plans.

**Operations Division (Gerência de Operações Aeronáuticas e Aeroportuárias – GOPS)**
Establishment of safety standards, rules, guidelines and inspections related to aerodromes operations, maintenance, emergency response and safety management systems (SMS). It is also responsible for conducting airport operational certification process.

**Facilitation and Security Division (GFSI)**
Establishment of technical guidelines, standards and rules for all aspects related to air transport facilitation and security against unlawful acts. This division is also responsible for regulating airlines, airport and cargo operators, airport services, besides aviation security training centers.

**Privatized Airports Branch (Gerência Técnica de Coordenação de Concessões – GTCC)**
Coordination of actions concerning the privatized airport infrastructure, teaming with other ANAC branches. Up to date there are four major airports operated by the private sector – one of them under construction. GTCC is in charge of the management of the contract on the issues related to Airport Infrastructure and works along with the technical branches (GENG, GOPS, GFSI) checking compliance, investment triggers, airport infrastructure expansions and follows the operational airport transfer processes.

**Urban Relations and Environment Section (DRUM)**
Development of studies, analysis and technical guidelines concerning the regulation of aircraft noise and wildlife hazard at airports. Additionally, the section advises the Airport Infrastructure office on issues related to the development of airport infrastructure in accordance with the environmental standards, promoting sustainable development of civil aviation.

Source: ANAC
**Infraero** is a national public company founded in 1973. Infraero operates airports, air navigation stations, cargo logistic terminals and helicopter platforms throughout the country. The ongoing concessions programme however has changed Infraero’s role. From being the operator of nearly all airports in the country it is now more focussed on the development of airports to benefit regional aviation. This means Infraero is currently responsible for mostly smaller airports since six airports have already been privatised with another four on the way. The airports already under concession include the hubs of Galeão (Rio de Janeiro), Guarulhos (São Paulo), Brasília and the cargo focussed Viracopos. Infraero is still 49% stakeholder of the airports currently under concession. This means the state will receive dividends arising from such participation and resources of the National Fund of Civil Aviation (FNAC) for investments in other airports, but it also means Infraero has to match private investments made by concession holders, which limits Infraero’s funds to invest in other airports such as São Paulo’s Congonhas airport. Lessons learned from the first auctions are used to create the conditions for future concessions. For example: the minimum stake of Infraero will be 15% instead of 49%. It is expected that Infraero’s role within Brazilian aviation will change further in the coming years.

The airport infrastructure plan also foresees in the creation of Infraero Serviços, a subsidiary of Infraero. Infraero Serviços, in partnership with an international operator, will offer planning services, consulting, management, operation support and personnel training related to the operation of airports in Brazil and abroad. The latest news is that Infraero will partner with Germany’s Fraport for the creation of this new venture.

**DECEA** is Brazil’s airspace control organisation which falls under the Ministry of Defense (Air Force). The Department is responsible for the management of all the activities related to the safety and efficiency of the Brazilian airspace control. Its mission is to manage and control the air traffic in the Brazilian sovereign airspace as well as to guarantee its defense. As the main organization of the Brazilian Airspace Control System (SISCEAB), DECEA plans and approves the deployment of equipment and systems and oversees technical and operational organizations responsible for activities related to SISCEAB. DECEA’s subdivisions provide services such as Aeronautical Information System (AIS), Air Traffic Management, Aeronautical Cartography, Search and Rescue, Aeronautical Meteorology, Information Technology, Flight Inspection and Aeronautical Telecommunication. Relevant units of DECEA for airport development are:

- **CISCEA** – Maintenance and upgrade of surveillance and control systems.
- **ICEA** – Training and R&D organisation.
- **ICA** – Aeronautical cartography.
- **CGNA** – Air traffic flow management.

Source: DECEA

The municipality of São José dos Campos and its Instituto Tecnológico de Aeronáutica (ITA) were visited. The city is home to Embraer’s main facility and its airport has recently been renewed to facilitate Embraer’s operations and can now also handle air cargo. ITA is part of DCTA and within the faculty of Air Transportation it focusses on civil engineering and airport planning & design. Research topics air for example on capacity and ATM. It has a collaboration with the airports of Galeão and Guarulhos, but also with the Dutch Technical University of Delft.
AIRPORTS

Brazil has 31 airports that handle over 1 million passengers per year. The major, 10+ million passengers, hubs are located in São Paulo (economic centre), Rio de Janeiro (tourist centre), Brasília (government) and Belo Horizonte (3rd largest city).

Source: Albatross Airport Information.
MAJOR AIRPORTS

SÃO PAULO GUARULHOS AIRPORT
Passengers (2014): 39,765,714
Cargo (2014): 554,564 metric tonnes

Brazil’s largest airport is owned for 51% by a consortium of Invepar (Investimentos e Participações em Infraestrutura S.A.) and ACSA (Airports Company South Africa). Guarulhos was included in the second round of concessions to be granted by the Brazilian government. It has seen major investments to prepare the airport for 2014’s FIFA World Cup and 2016’s Summer Olympics. One of the concession holders major investments included the construction of a new terminal, Terminal 3. This terminal is already in operation. Other projects include the construction of additional taxiways and enlargement of apron and taxiways to be completed in 2016. The retrofit of terminal 1 and 2 is also to be completed in the second semester of 2016. The airport’s main challenges are in daily operations, increase of capacity / efficiency for example for the 2016 Summer Olympics. It is estimated that 40% of the traffic will go through São Paulo and this will increase to 70/80% in case the new terminal at Galeão is not in operation for the Olympics.
BRASÍLIA AIRPORT
Passengers (2014): 18,144,828
Cargo (2014): 40,628 metric tonnes

This airport, which shares facilities with the Brazilian Air Force, is under a 25 year concession (since 2012) by the Consortium Inframérica, formed by the Brazilian Engineering Group Engevix (50%) and the Argentinean Group Corporación América (50%). Inframérica also won the concession of Gov. Aluízio Alves International Airport in Natal. Brasilia Airport has seen several expansions, including a new 10-gate pier, and an upgrade of terminal 1 and 2. A €12 million contract was awarded to Vanderlande Industries in 2013 to install a new baggage handling system. In addition to the concession obligations Inframérica launched an additional $252M two-year terminal improvement project in 2016, referred to as the ‘new JK terminal’. This project extends terminal size four times its current size. The focus is on upgrading pre-security areas and making terminal improvements for international flights. Plans include 6 boarding bridges, 280 shops, 30 cafes, 8 restaurants, movie theatres, gym, 2 office buildings and a carpark with 4,000 spaces.

SÃO PAULO CONGONHAS AIRPORT
Passengers (2014): 18,060,925
Cargo (2014): 44,292 metric tonnes

Congonhas Airport is the largest airport that is still (and will remain) fully operated by Infraero. The 80 year old airport has seen extensive growth in previous years, but it is currently reaching its maximum capacity. This, combined with the fact that the airport is located within the city of São Paulo, creates the expected challenges in terms expansion, safety and security. Investments need to be made to expand the terminal and to modernise security and operations. Plans are being made for upgrades including new boarding bridges and apron improvement. These projects are led by Infraero’s headquarter in Brasilia and Infraero will launch a tender mid-2016 after securing private sector funding. Congonhas is also planning to study the possibilities of general and executive aviation at the airport.
RIO DE JANEIRO - GALEÃO TOM JOBIM AIRPORT
Passengers (2014): 17,261,873
Cargo (2014): 118,102 metric tonnes

Since 2014 Galeão airport is operated by the consortium of Brazilian contractor Odebrecht and Changi Airport. Infraero is 49% shareholder. The consortium will invest a total of 5 billion reais in the coming 25 years. The main project that was initiated for the 2016 Summer Olympics was the expansion of Terminal 2. The expansion should improve passenger traffic through the airport and should be ready in the first half of 2016. Other projects to be implemented are a new operations command center, 33 new bridges, self-service passport control and bag-drop, a new wayfinding system and an improvement of passenger experience for the Paralympics. After the Olympics the planning and execution of new projects such as a domestic cargo terminal, bird control, improvements on aprons and potentially a 3rd runway (2023). Odebrecht is also looking to increase its stake in airport projects in Latin America.
BELO HORIZONTE - TANCREDO NEVES INTERNATIONAL AIRPORT
Passengers (2014): 10,792,242
Cargo (2014): 14,227 metric tonnes

Brazilian group CCR S.A., Zurich Airport and Munich Airport currently operate Belo Horizonte Airport under a 30-year concession. To manage the expected growth in this period the construction of a new terminal, a second runway and expansion of the apron were planned. The construction of the new terminal 2 is scheduled to be completed by the end of 2016. The expansion of the apron is scheduled in the same period. The airport is furthermore looking to expand its parking and cargo capacity.

CAMPINAS VIRACOPOS AIRPORT
Passengers (2014): 9,846,853
Cargo (2014): 223,280 metric tonnes

The second largest cargo airport, after Guarulhos, is Viracopos Airport which is located north of São Paulo. The Consortium Aeroportos Brasil holds the 30-year concession which was granted in 2012. In the period leading to the 2014 World Cup a new master plan was created which led to the construction of a second runway and the first phase of a new passenger terminal. The airport is expected to grow further if it will be successful in taking over some of the passenger flow from Guarulhos which will operate at close to maximum capacity in 2020. The master plan foresees a potential to grow towards four runways. Cargo currently represents 65% of the airports’ revenue and the airport could improve its cargo capacity and facilities.
OTHER MAIN AIRPORTS

SANTOS-DUMONT AIRPORT

Infraero’s second largest airport, after Congonhas, is Santos-Dumont Airport which is located in downtown Rio de Janeiro. The airport handles nearly 10 million passengers annually and has seen major upgrades in the approach to the 2014 World Cup. Its main challenges are currently the efficient use of airspace and safety and environment related. Both because of restrictions due to its central location in Rio de Janeiro.

The airports of Fortaleza (CE), Salvador (BA), Porto Alegre (RS) and Florianópolis (SC) are the airports that will be available in the next round of concessions. The annual passenger flow for these airports range from nearly 10 million (Salvador) to 3.7 million (Florianópolis) and the approval of the bidding documents and the auction are scheduled for the first half of 2016. The concession programme will include major investments and upgrades from the concession holders so a close monitoring of this process is advised. A presentation by SAC on the coming concessions can be found here.

AIRPORT CONCESSIONS

2011 (ASAG) NATAL 2012 (BSB) BRASÍLIA 2014 (GIG) GALEÃO
2015 (FLN) FLORIANÓPOLIS (FLZ) FORTALEZA (SSA) SALVADOR (POA) PORTO ALEGRE

Due to the government programme to eliminate corruption, all tenders (future and past) are published on SAC’s and Infraero’s website.
NEW SÃO PAULO AIRPORT

In December 2013 it was announced that a privately operated third international airport serving São Paulo would be constructed at Caieiras (40km north of São Paulo). The airport would feature two 3500m runways, a 340,000sqm passenger terminal and a 70,000sqm cargo terminal. The passenger would have a capacity of 48 million passengers annually. This development is in addition to two other planned airports servicing business and general aviation. Since the announcement the concessionaires at the privatised Guarulhos and Viracopos airports have raised their concerns as this development was not mentioned during the bidding process of both airports and is expected to influence passenger numbers once the facility is opened. Current status is that the development is approved by Brazil’s Chamber of Deputies and CCR SA is in negotiations for approximately 12.8 million sqm of land between Cajamar and Caieiras (October 2015).
REGIONAL AVIATION
In addition to the development of the major airports, either by Infraero or by the concession program, Brazil has the strategic plan to construct or upgrade 270 airports around the country. These developments are mainly focussed on developing the more remote areas of the country. Out of these 270 airports to be developed, 255 are existing airports to be upgraded. The plan is to have 96% of the population living at most 100 km of a passenger terminal. Currently 40 million people are at a greater distance than this from an airport and only 77 regional airports operate commercial flights regularly. The USD 3.6 billion investment programme comes from the National Civil Aviation Fund (FNAC) which is managed by the Banco do Brasil. Banco do Brasil also manages procurement and opportunities can be found on: http://licitacoes-e.com.br/aop/index.jsp. The development includes cargo and passenger airports and subsidised flights to develop non-commercial routes and to include remote areas into the network of Brazil's carriers.

Apart from the ability to fund this development, the challenges that occur in this program focus on Air Cargo (management) and Airport Safety and Security. These topics were discussed during the workshops following the “Airport Cargo, Safety & Security: a Dutch perspective” seminar in Brasilia.

AIR CARGO
The discussion, led by ANAC, focussed on improving cargo management, custom procedures, management of dangerous materials and security. An example of custom agreements on government level, for example between India and the Netherlands, will be further investigated. The ICAO programme which is supported by SAC is used to facilitate research in this area.

SAFETY & SECURITY
The development or upgrade of 270 airports in remote areas causes a major challenge in terms of responsibility, affordability and operations. As clearly indicated by main stakeholders the goal is to research international best practices to introduce into Brazilian aviation. These topics will be added to the ICAO programme in order to facilitate studies and consultancy. Research should be focussed on:

- Remote ATC
- Remote safety and security inspection
- Area / surrounding protection
- Operations by local municipalities or airlines
- Pavement solutions
- Firefighting solutions
CONCLUSIONS & RECOMMENDATIONS

A lot has been said about Brazil’s current economy and struggle with corruption, which seems to affect all industries and all layers of the society. Also the import taxes for equipment and services are notorious. Because of this the strategy laid out for its aviation industry, and in particular airport infrastructure development, have only slowly progressed in recent years. Government budgets have been cut and investments are delayed. This affects the decision making for the 270 regional airports to be developed, but also Infraero’s main airports Congonhas and Santos Dumont.

On the other hand there are the privatisation of currently six airports and another four to be finalised in 2016. This created the possibility for privately owned joint ventures to make necessary investment in infrastructure. Since the investment programme is determined in the bidding process this could offer opportunities for Dutch companies.

Despite the aforementioned delays and challenges, it is without a doubt that aviation in Brazil has great potential. The growing population, increasing air travel, size of the country and its natural resources are key elements needed for a strong aviation industry. The ability to deal with the current challenges however decide when and how fast the industry will develop. Some reports say 2016 is a lost year for Brazil (focussing on reform and recovery) and that the re-building starts from 2017. This being said this is a time for government and (Dutch) industry to show commitment and support to its Brazilian counterparts in order to develop the cooperation and business when momentum increases.

Apart from individual follow-up by the participating companies there are some general actions to be taken by the Embassy of the Netherlands in cooperation with NAG and Netherlands Enterprise Agency:

• The current MoU between Brazil and the Netherland ends in December 2016. Discussion for the renewal are to be started.

• A delegation of Brazilian airport experts from government and private industry will visit the Netherlands on a study mission. This is to take place after the 2016 Olympics.

• SAC has an ICAO agreement which could facilitate cooperation between Brazil’s government agencies and Dutch companies. The agreement focusses on Air Cargo and Airport Safety & Security. Suppliers have to be ICAO registered and details are to be discussed.
REFERENCES AND USEFUL LINKS

SUPPORT BY GOVERNMENT AND INDUSTRY ASSOCIATIONS
This fact finding has been executed by the NAG, the Dutch trade association for aerospace and airport development, in cooperation with the Embassy of the Netherlands in Brasilia and its offices in São Paulo and Rio de Janeiro. The network that was used for and created for this fact finding is available to Dutch companies interested to do business in Brazil. Both organisations also organise trade missions and matchmaking visits for Dutch companies. For more information and for an agenda of trade related activities focussed on the region please visit the websites of these non-profit organisations. The NAG also has a local representative in Brazil, Mr. Marcelo Cantor nag.brazil@gmail.com.

www.nag.aero
http://brazilie.nlambassade.org/

The Netherlands economic government network in Brazil region also offers a number of products and services that can help prepare and establish business. These services focus on providing market information, identifying potential partners and advising on setting up business in the region.

TRADE REQUESTS
Do you have a trade request about doing business in Brazil? The Embassy is more than happy to assist. Besides offering concrete answers to your questions relating exporting and investing abroad, they can also assist you in efforts to discover potential market opportunities.

BUSINESS PARTNER SCAN AND MATCHMAKING
A business partner scan gives you an overview of potential business partners in your target market. These partners can be agents or distributors, but also manufacturing partners. The network looks for parties that meet your specified criteria and are interested to work with you. Further information on: www.rvo.nl/onderwerpen/hoi/netwerkpartners-zoeken/internationale-zakenpartners/zakenpartnerscan (in Dutch).

COMPANY CHECK
The Embassies can run a company check at the request of Dutch companies about a potential business partner. The check verifies if the company is legally registered with a local authority.

SUPPORT TOOLS
The Embassy, its network, and NAG work closely together with organisations and ministries in the Netherlands. For example with RVO (www.rvo.nl), which has several tools to support Dutch companies with ambitions abroad, both starting and seasoned entrepreneurs.
SOURCES & USEFUL LINKS

GOVERNMENT:

• SAC (http://www.aviacao.gov.br)
• ANAC (http://www.anac.gov.br)
• DECEA (http://www.decea.gov.br)
• Infraero (http://wwwinfraero.gov.br)

INDUSTRY ASSOCIATION:

• ANEAA (http://aneaa.aero)
• ABRASSET (http://www.abrasset.org.br)
• ANCAB (http://www.ancab.com.br)
• ABEAR (http://www.abear.com.br/)

NEWS:

• Flightglobal (www.flightglobal.com)
• Aviation Week (http://aviationweek.com/)

• Air Cargo World (http://aircargoworld.com/)
• Air Cargo News (www.aircargonews.net/)

• Airport World (http://www.airport-world.com/)
• Albatross Airports Database (http://wwwairport-information.com/)
• Momberger Airport Information (http://wwwmombergerairport.info/)

THE NETHERLANDS:

• NAG (www.nag.aero)
• RVO (www.rvo.nl)

NETWORK

• Secretaria de Aviação Civil (SAC)
  - Leonardo Cruz – Airports Secretary
  - Paulo Henrique Possas – Director Airports Management Department
  - Eduardo Henn Bernardi – Director of Management Department of the Federal Program of Assistance to Airports
  - João Batista Lanari Bo – Special Advisor International Affairs

• Agência Nacional de Aviação Civil (ANAC)
  - Marcelo de Souza Carneiro Lima – Operations Manager

• DECEA
  - Lt Gen José Pompeu dos Magalhães Brasil Filho – DECEA Vice-Director
  - Luiz Roberto Barbosa Medeiros – Chefe do CGNA
  - Col Leandro Costa de Andrade – Technical Subdepartment Second Officer

• Infraero (Congonhas)
  - Eliana Akemi Kogima – Superintendente
  - Marcos Vaz Miguel – Gerente de Segurança
  - Walter Luiz R. Stanisci Jr. – Coordenador de Proteção Contra Atos Ilícitos

• Viracopos
  - Marcelo Mota – Director of Operations and COO
• RIÓgaleão
  - Carlos Rodriguez – Operacões
  - Ana Torrontegui – Strategic Development

• Guarulhos Airport
  - Joel Ribeiro – Special Operations Planning
  - Miguel Trindade – Corporate Security
  - Ana Freitas – Corporate Security
  - Hilma Kelly – Safety
  - Maurícia Pontes – Emergency Response

• São José dos Campos
  - José Henrique de Sousa Damiani – Director
  - Sebastião Gilberti M. Cavali - Secretário

• ANEAA
  - Douglas Reboucas de Almeida – Diretor Administrativo-Financeiro

• Belo Horizonte Airport
  - Camila Primola – Cargo Center

• TAM
  - Audrey Mourão Hilzendeger – On Time Performance Management

• Modern Logistics
  - Adalberto Febeliano – Commercial & Marketing VP

TRADE FAIRS AND EXHIBITIONS
In Brazil various exhibitions take place in the field of aviation and airport related areas. The main events are:
Airport Infra Expo – Brasília (http://www.airportinfraexpo.com.br)
Intermodal – São Paulo (http://www.intermodal.com.br/)