

## **LATAM Airlines Group presents technical airport infrastructure requirements for the Northeast hub based on study by the consulting firm Arup**

*Study ordered by the Group indicates the airport infrastructure development alternatives for each of the three airports involved*

*This study is one of the factors considered in the Group's analysis to determine the location of the hub*

**São Paulo, October 15, 2015** – LATAM Airlines Group, the largest airline group in Latin America, hired Arup, a global planning, design, and engineering consulting firm with more than 50 years' experience in aviation projects, to develop a study on the airport infrastructure in the cities of Fortaleza, Recife and Natal, involved in the project to implement the first domestic and international hub (flight connection center) in Northeast Brazil.

The analysis of airport infrastructure was presented on October 15, 2015 to the State Departments of the three states involved, as well as federal officials from Brazil's Department for Civil Aviation (SAC) and National Civil Aviation Agency (ANAC).

### **Methodology**

Arup conducted an independent analysis of the existing infrastructure at the passenger and cargo terminals of the three airports to highlight improvements and investments required to guarantee the feasibility of the LATAM Airlines Group hub in its initial phase of development and over the medium- and long-terms.

As primary assumptions, Arup used projections of passenger and aircraft traffic and passenger traffic during peak hours (period of one hour with the greatest passenger traffic) for the period from 2018 to 2038, based on data provided by LATAM Airlines Group and independent growth projections from other airlines.

In addition to the usual operational parameters applicable to terminals, such as service level, airport subsystem processing time (x-ray machines, baggage handling system and others), minimum connection times and boarding area capable of handling peak passenger traffic, among others, Arup used the following planning requirements to determine the size of the LATAM hub:

- **Connection bank:** Concurrent multiple arrivals followed by multiple departures that provide connectivity between destinations in a period of approximately 6 hours;
- **Apron capacity:** Maximum of 36 LATAM Airlines aircraft from different sizes (Narrow-Body and Wide-Body) on ground simultaneously, with approximately 75% connected to fingers;
- **Passenger Processing:** Hub with high percentage of passengers in connection during peak hours (up to 80% of the estimated passenger volume).

Based on the assumptions and technical criteria evaluated, the consulting firm structured alternatives for airport infrastructure development required for each of the three airports involved.

“Arup’s study supports one of the three decision criteria established by the LATAM Airlines Group to implement the hub, the quality of the airport infrastructure. And it’s also connected to the other two: the customer experience and the cost competitiveness. With the data from the analysis, we will continue to evaluate the development plan for each of the airports,” said Claudia Sender, CEO of TAM S/A. “We are confident in the development of the project, which will benefit the entire Northeast region,” she added.

“Each of the Northeast Brazil candidate airports will be well positioned to meet LATAM’s hub objectives if the recommended investments are made in expanded and transfer-friendly facilities”, added Susan Baer, Arup’s Americas Aviation Leader.

### **Unique plans for each city**

**In Fortaleza**, Arup recommends **organic expansion** of the existing terminal, with an increase in terminal area and construction of a pier as a continuation of the current terminal.

**In Recife**, Arup calls for the construction of a new terminal on the opposite side of the runway from the current terminal, which will require approval for use of the area currently occupied by the military base.

**In Natal**, Arup recommends to continue with the existing terminal's **organic expansion** in accordance with the airport's Master Plan, with an increase in terminal area and the construction of a pier to expand the current terminal.

The Arup study initially shows that the current terminals were conceived for point-to-point transit and therefore lack the characteristics of a hub. As such, all will require adaptations to receive a flight connection center with the characteristics desired by LATAM Airlines Group.

Based on data from the study, estimates call for the hub to handle 2 million additional passengers on 24 aircraft operated simultaneously every day in 2018 (between 2,500 and 3,000 passengers at peak hour).

In 2038, passenger traffic is expected to reach 3.2 million on 36 aircraft operated simultaneously every day (more than 4,000 passengers at peak hour).

Based on projections for demand, the nominal capacity of current runways is sufficient to meet projected demand for the LATAM Airlines Group hub up to 2038. However, the study shows that all the stakeholders can benefit from the increase in runway capacity to the international standard of 40 flights per hour, feasible with the improvement of systems and procedures.

With the adaptations and investments recommended herein, Arup believes that the three airports would be capable of handling estimated flight and passenger traffic with satisfactory service and efficiency levels, reasonable timetable for execution and potential for long-term expansion.

## Completed External Studies

LATAM Airlines Group has completed the disclosure of studies ordered from international consulting firms to evaluate the economic, social and infrastructure impacts of the implementation of the Northeast hub.

Arup's evaluation is the second study from an international consulting firm ordered by LATAM to be released.

In September, Oxford Economics presented the results of its assessment of the economic and social impacts of the Northeast hub.

The Oxford study indicates that each dollar invested in the hub by LATAM Airlines Group will generate between 5.2 and 5.8 dollars in new economic activities, considering the average over the first five years of operations. This projection includes the creation of value in the chosen city and others that participated in the study.

The consulting firm also estimates additional GDP growth in the three cities involved in the hub of 5-7%, considering the average of five years of operations. In this period, the hub should generate between 34,000 and 42,000 new jobs in the Northeast region.

During the first phase of development spanning the first two years, the Northeast hub will move 1.1 million passengers on long-haul flights and 1-1.2 million passengers domestically and between neighboring countries in South America.

### About Arup

Arup is the creative force at the heart of many of the world's most prominent projects in the built environment and across industry. Its 13,000 planners, designers, engineers and consultants deliver innovative projects across the world from 90 offices in 38 countries, including Rio de Janeiro and São Paulo in Brazil.

Arup was founded in 1946 with an enduring set of values that fosters a distinctive culture, intellectual independence and collaborative approach. The people at Arup are driven to find a better way to deliver better solutions for their clients. For additional information, visit Arup's website at [www.arup.com](http://www.arup.com) and the online magazine of Arup in the Americas at [doggerel.arup.com](http://doggerel.arup.com).

### About LATAM Airlines Group S.A.

LATAM Airlines Group S.A. is the new name given to LAN Airlines S.A. as a result of its association with TAM S.A. LATAM Airlines Group S.A. now includes LAN Airlines and its affiliates in Peru, Argentina, Colombia and Ecuador, and LAN Cargo and its affiliates, as well as TAM S.A. and its subsidiaries TAM Linhas Aereas S.A., including its business units TAM Transportes Aereos del Mercosur S.A., (TAM Airlines (Paraguay)) and Multiplus S.A. This association creates one of the largest airline groups in the world in terms of network connections, providing passenger transport services to about 140 destinations in 24 countries and cargo services to about 144 destinations in 26 countries, with a fleet of 320 aircraft. In total, LATAM Airlines Group S.A. has approximately 53,000

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employees and its shares are traded in Santiago, as well as on the New York Stock Exchange, in the form of ADRs, and Sao Paulo Stock Exchange, in the form of BDRs.

LATAM Airlines Group announced that LATAM is the new brand for LAN Airlines, TAM Airlines and Affiliates. LATAM Airlines Group is currently working on the gradual roll-out of the new corporate brand image. The first changes will be visible starting in the first half of 2016.

Each airline will continue to operate under their current brands and identities. For any inquiry of LAN or TAM, please visit [www.lan.com](http://www.lan.com) or [www.tam.com.br](http://www.tam.com.br), respectively. Further information at [www.latamairlinesgroup.net](http://www.latamairlinesgroup.net)