# SANTIAGO: FACING THE FUTURE

## ÁLVARO ROMERO HIGHLIGHTS THE WORK UNDER WAY TO UPGRADE CHILE'S PRIMARY GATEWAY.

Chilean air passenger traffic grew 17% in 2012, with more than 14 million people flying to or from the country, equivalent to 82% of its population travelling through its airports in a 12-month period. *(Photo: Álvaro Romero)*

**It is no secret that Santiago de Chile's Arturo Merino Benítez International Airport's (IATA: SCL) passenger traffic has outgrown its existing infrastructure – but work is now under way to solve the problem.**

More than 15 years ago, two companies, the Canadian airport design firm Stantec and Chilean architects Amunategui Barreau Arquitectos Asociados (ABAA), joined forces to design the original Santiago Airport terminal. The airport's success and the growth in its passenger volumes have been extraordinary – to the extent that a major expansion is now needed. Chilean air passenger traffic grew 17% in 2012, with more than 14 million people flying to or from the country – equivalent to 82% of its population travelling through its airports in a 12-month period. Along with an expansion programme started in 2009, the growth was the 'trigger' that started short-term work to increase passenger capacity.

An initial enhancement programme – Phase 1 – to improve and expand the domestic terminal's arrivals and departures areas began in November 2013 with the addition of 11 new check-in counters, taking the number by 33% to 59. They were completed in early January 2014, ready for the southern hemisphere's summer season.

The wider Phase 1, scheduled to be complete by June 2014, is the first of seven stages that will dramatically change the face of Arturo Merino Benítez airport and increase its current theoretical 9 million capacity (surpassed in 2009) to 16 million passengers per annum (mppa) by 2015. Phase 1 involves adding 231,424 sq ft (21,500m²) of space to relieve pressure on congested areas at a cost of US$70 million. Other features include a new remote international departure/embarkation zone, raising the airport's handling capacity by 20% and enabling it to handle four departures simultaneously; four extra elevators and escalators; a 50% expansion of the customs and police areas; ten new X-ray machines; and the modernisation of the international arrivals and domestic departure zones, which have new baggage systems.

Later, a new 1.8 million sq ft (176,000m²) international terminal will enable the existing facility to be converted – with a 210,000 sq ft (21,000m²) remodel and expansion – to handle domestic services. Overall, the number of aircraft parking stands looks set to increase from 18 to 81 (depending on aircraft type).

The airport authority is aiming to make the most of its non-aviation revenue and work is under way to better utilise commercial areas by providing more innovative stores and services. Car parking, and its associated revenues, has also been considered – two three-storey car parks will be built, doubling the number of spaces available, and their roofs may be developed into a shopping boulevard.

Consideration for the expansion's environmental sustainability includes energy-saving measures such as using environmentally-friendly construction materials and exploiting natural light to lower electricity consumption and reduce buildings' reliability on air conditioning.

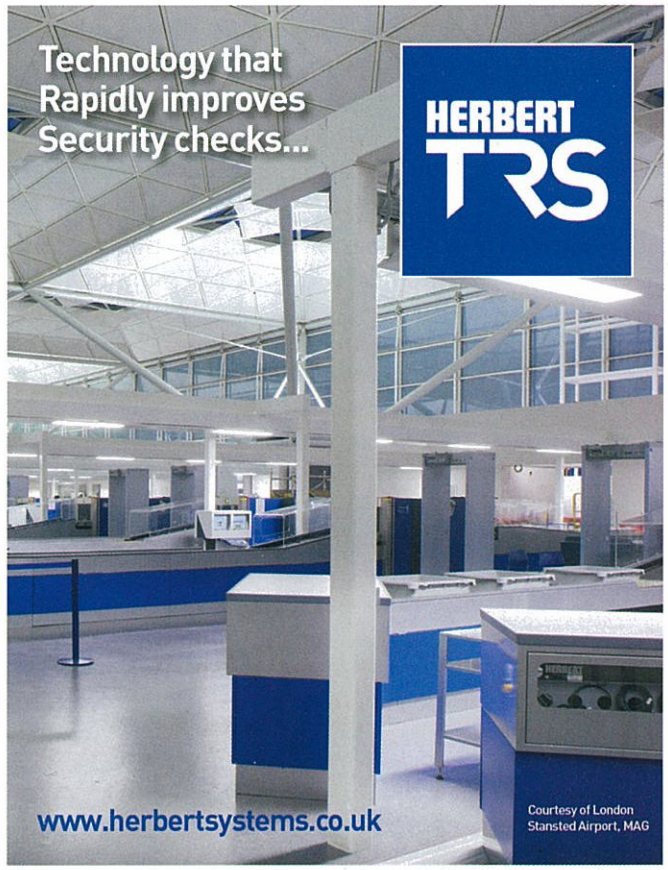
### THE DESIGNER'S VIEW

Chile's state-run civil aviation directorate, the Dirección General de Aeronáutica Civil (DGAC), and its

infrastructure ministry, the Ministerio de Obras Públicas, are working with the airport's management team – Dirección de Aeropuertos – to deliver the upgrades at Santiago Airport. Following the previous successful relationship between designers Stantec and their Chilean architectural partner, ABAA, the two firms were selected from a field of international competitors to plan and design the expansion, which will be one of the largest developments of its kind worldwide. The design consortium is led by Stanis Smith and Sergio Amunategui, and the key design team leaders are Rian Burger and Cecilia Einarson.

Mr Smith told *Airports International*: "The masterplan concept allocates the original terminal to domestic flights and the new terminal to international ones. The key challenge the design team faced was to relate the new to the original in a way that would allow passengers and airline staff to connect easily between international and domestic flights."

Many airports solve this challenge by designing solutions requiring shuttle services, light-rail and other transportation systems between terminals. "The Stantec/ABAA design team felt there had to be a better and more passenger-friendly way," said Mr Smith. "We came up with a design that is remarkable and unique because it turns conventional wisdom on its head, and enables passengers and crew who connect between domestic and international flights to do so ►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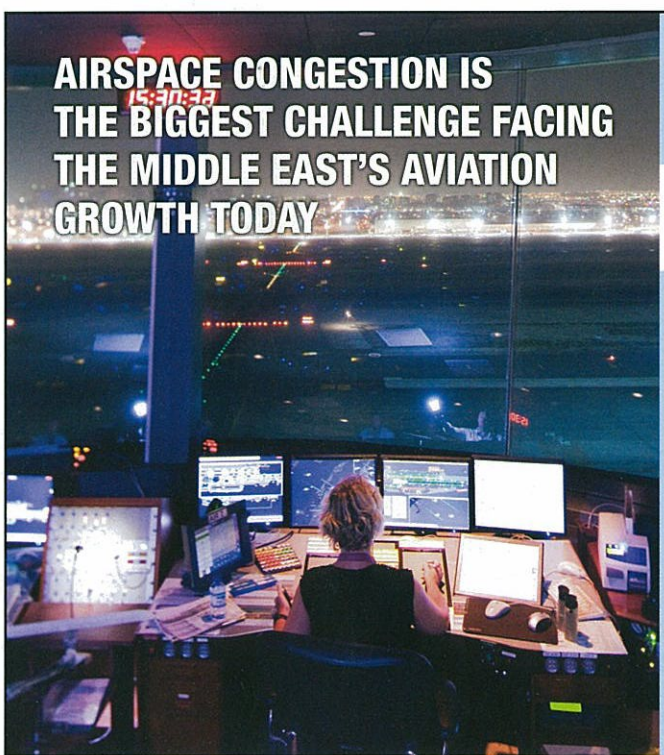


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on foot in a manner that minimises walking distances."

He added that a temperate climate, a receptive client and a passionate commitment to passenger experience led the team towards a unique solution: rotate the new building 180 degrees so that its entrance faces the entrance of the original, and then create a creating a pleasant, walkable, open-air plaza between the two buildings. That way there is no need for any shuttle service or light rail between them, and the walking distances for connecting passengers and crews are minimised.

The design team says it also wanted to create "iconic roof forms" for the new terminal and piers that would "capture the unique geography of Chile and its relationship to the ocean". Mr Smith says the resulting design has a series of "lyrical, flowing sine-wave roofs that express the relationship between land and sea, and will create dramatic interior experiences for those who use it".

The Stantec/ABAA design will form the basis for bids from companies aiming to construct and operate the airport. The bidding process is scheduled to start later this year. Overall, this series of long-term projects is expected to be complete by 2019, thereby enabling the airport to handle 30mppa. ■

**Bottom:** The design for Santiago's future layout will rotate the new building 180 degrees on electronic plans so that its entrance faces the entrance of the original. *(Stantec/ABAA)*

**Below:** The new design, produced by Stantec/ABAA, will form the basis for bids from companies aiming to construct and operate the airport. *(Stantec/ABAA)*