



A curving slab-like roof oversails the glazed elevations of this new airport terminal in Gibraltar by London firms Bblur Architecture and 3DReid (+ slideshow).



The architects designed the building as a gateway to the British overseas territory, as it is the first structure that visitors will see when arriving by plane, car or on foot.



Fully glazed elevations were added to take advantage of the views in every direction. To the west and east, passengers can look out over the Mediterranean Sea, while the landmark Rock of Gibraltar flanks the building from the south.



The roof overhangs each side of the building, creating a canopy that shades the windows from direct sunlight. An integrated cleaning system also rinses the facades periodically to keep the glass free from corrosive sand particles.



The interior of the terminal is organised over two floors, with a double-height concourse for check-ins and arrivals. The departures lounge occupies the first floor and extends out onto a balcony terrace that spans the building and branches out to the west.



"I feel that the building arrangement is particularly successful in creating a graceful and elegant and calm resolution to a very demanding brief," lead designer Daniel Bérubé told Dezeen.



He added: "There is a type of narrative that unravels in the building, culminating in the departures lounge where there is finally a full view of the striking north face of the Rock of Gibraltar. Its full breadth and setting can be further appreciated by stepping outside the departures lounge onto the airside terrace."



Another benefit of the glazed elevations is that they bring natural light through most spaces in the building. Roof lights were also added and help to aid orientation through the terminal.



Bérubé first developed the design for the airport whilst working for [3DReid](#), but continued working on the project after leaving to set up his own firm, [Bblur Architecture](#), with partner Matthew Bedward.



Since launching in 2008, Bblur Architecture has also completed [a bus station with an undulating aluminium canopy](#) and collaborated with Rogers Stirk Harbour + Partners on a [fabric walkway on the roof of the O2 Arena in London](#).



Other airports to complete in recent years include [Bodrum Airport in Turkey](#), which topped the transport category at last year's [World Architecture Festival](#), and [Carrasco International Airport in Uruguay by Rafael Viñoly](#). See [more airport design](#) on Dezeen.



Photography is by [Hufton + Crow](#).

Here's some text from the design team:

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### **New Gibraltar Airport Terminal**

Gibraltar Airport's uniquely situated new terminal building is modern, dynamic, transparent and airy. Designed by bblur architecture with 3DReid and NACO, it is a world class facility which has created opportunities for flights from Spain and the rest of Europe to Gibraltar.



### **A unique and complex location**

The new terminal is the first building visitors will see when they enter Gibraltar by air, road or on foot and is located immediately at the frontier, with the Rock as a backdrop. Sited within an extraordinary and spectacular landscape, it is bound by very tight constraints on all sides with the frontier with Spain to the North, the existing airport runway to the South, Winston Churchill Avenue to the West and tapering land with RAF restrictions to the East. The building is 2-storeys high and covers 19,600sqm.



### **A refined and elegant design solution**

With over 20 years experience in aviation the design team approached this commission with consideration and empathy, and created an important public space both around and inside the terminal.



A large over-sailing roof, providing shade and shelter to the fully glazed walls which maximise views to the Rock and across the straits toward Africa and the Atlantic and the Mediterranean, reflects the terminal's aviation function and maritime location.



The forecourt creates a new landscaped park providing a generous welcome to Gibraltar and the airport and an identifiable 'place' at the frontier, a place to meet and greet whether on a local or extended journey.



There are double height spaces within the terminal and an extensive airside roof terrace, designed as an extension to the departures lounge. The terminal which operates over two levels with an area of 19,600sqm has a primary check in and arrivals concourse at ground floor on the West side of the terminal. The terminal was also designed to accommodate entry and exit of passengers directly at the frontier.

The airport's airside areas have also been reconfigured to provide 5 aircraft stands and a new airside facilities building.



### Key design attributes

- » Takes advantage of fantastic views over the airfield towards the rock
- » Dramatic roof overhang and solar shading create a building which is architecturally significant and environmentally sensitive
- » The use of glazing achieves transparency between the interior and exterior, allows the terminal to be predominantly naturally lit and provides extensive views out of the terminal.
- » The fifth elevation (roof) very important as seen from the rock – use of roof lights which are laid out to visually guide passengers through some of the more internal routes. The roof lights generate subtle animation of the space throughout the day from throwing disks of diffused sunlight onto the floor to capturing the blue glow in the early evening.



## Energy efficient

Energy efficiency has been a key consideration. The design incorporates a large roof overhang to provide a high level of solar shading which maintains a cool environment. High performance double glazing and automated roller blinds contribute to enhanced energy performance.



Certain features of the design result from the building's proximity to the sea. In addition to the need for close attention to detailing and specifications for external elements because of the corrosive marine environment, there was also concern about maintaining the appearance of the glazing, not just from salt-saturated air but also wind-borne sand and dust particles. The design solution includes a special external cleansing system that intermittently rinses the façades to eliminate accumulated material. The de-ionised water used in the system further improves the effectiveness of the rinsing process.



Buro Happold's Fire Engineering developed a holistic fire safety design that integrates a combination of passive and active fire safety measures, along with management measures to combine to give a simple but robust fire strategy for the building. This provides several benefits: offering life safety protection to the large numbers of passengers and staff using the terminal, containing fire and smoke to limited areas, and reducing operational disruption in the event of an incident.

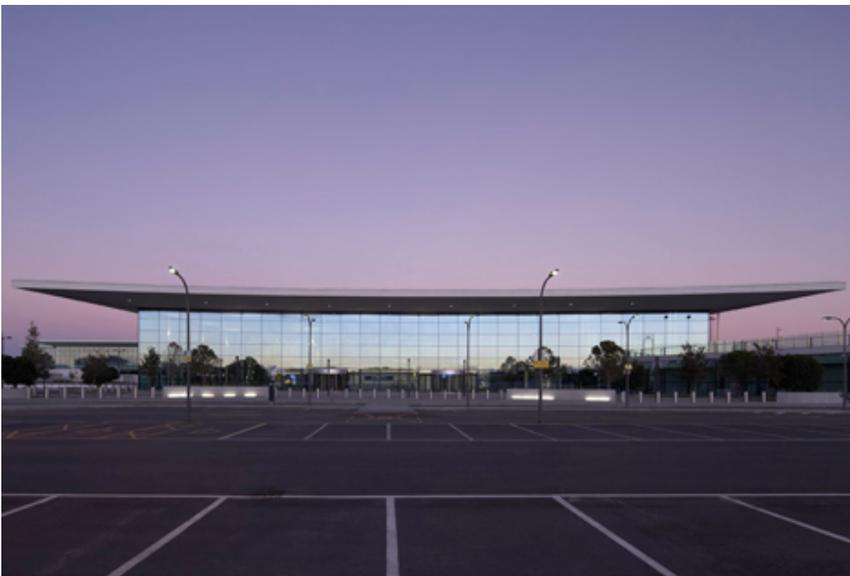


### **Team definition and roles**

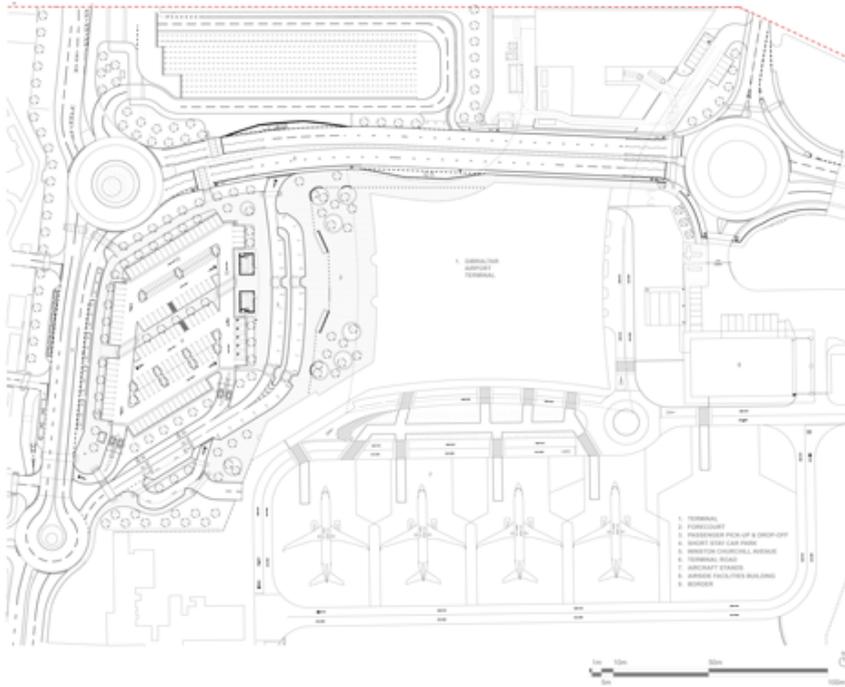
Daniel Bérubé and Matthew Bedward led the 3DReid design team from concept to planning scheme design until they left to form bblur architecture in 2008. bblur architecture and 3DReid agreed to collaborate throughout the design development and delivery phases of the project with Daniel Bérubé leading the project as concept guardian and lead designer working with 3DReid and the contractor to deliver the Terminal and associated infrastructure. This was to ensure that Dragados S.A., the Spanish contractor who was awarded the design-build contract of the Terminal and associated infrastructure works, remained faithful to the original design intent.



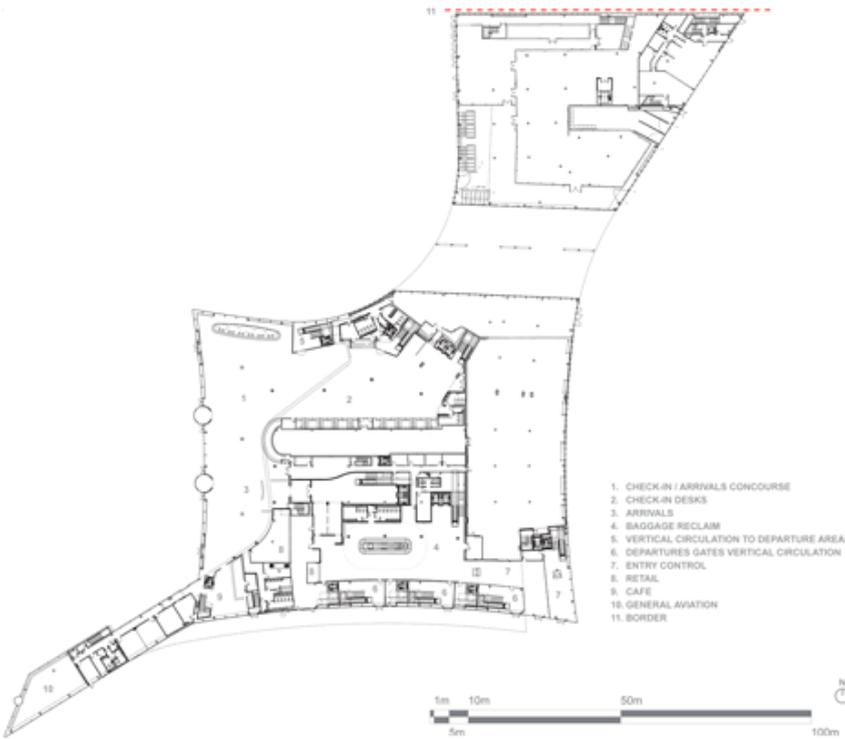
During the course of the project delivery bblur architecture was also commissioned to design the interiors of the terminal, and to redesign the terminal forecourt and adjacent public realm with Spacehub. In addition to the main terminal building, bblur architecture and 3DReid have designed the Park & Ride facility, a 6 level multi-storey car park, on the opposite side of runway.



Client: Government of Gibraltar  
Architect: bblur architecture and 3DReid  
Engineers: Buro Happold  
Main contractor: Dragados S.A.  
Aviation Consultants: NACO B.V.  
Landscape Consultants: Spacehub  
Project Management Gibraltar Land Reclamation Company



Above: site plan - click for larger image

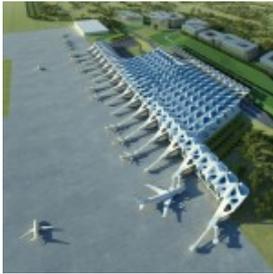


Above: ground floor plan - click for larger image



Above: first floor plan - click for larger image

**See also:**



- [Zaha Hadid appointed to develop plans fo...](#)



- ["Turkey has learnt how to be in a crisis...](#)

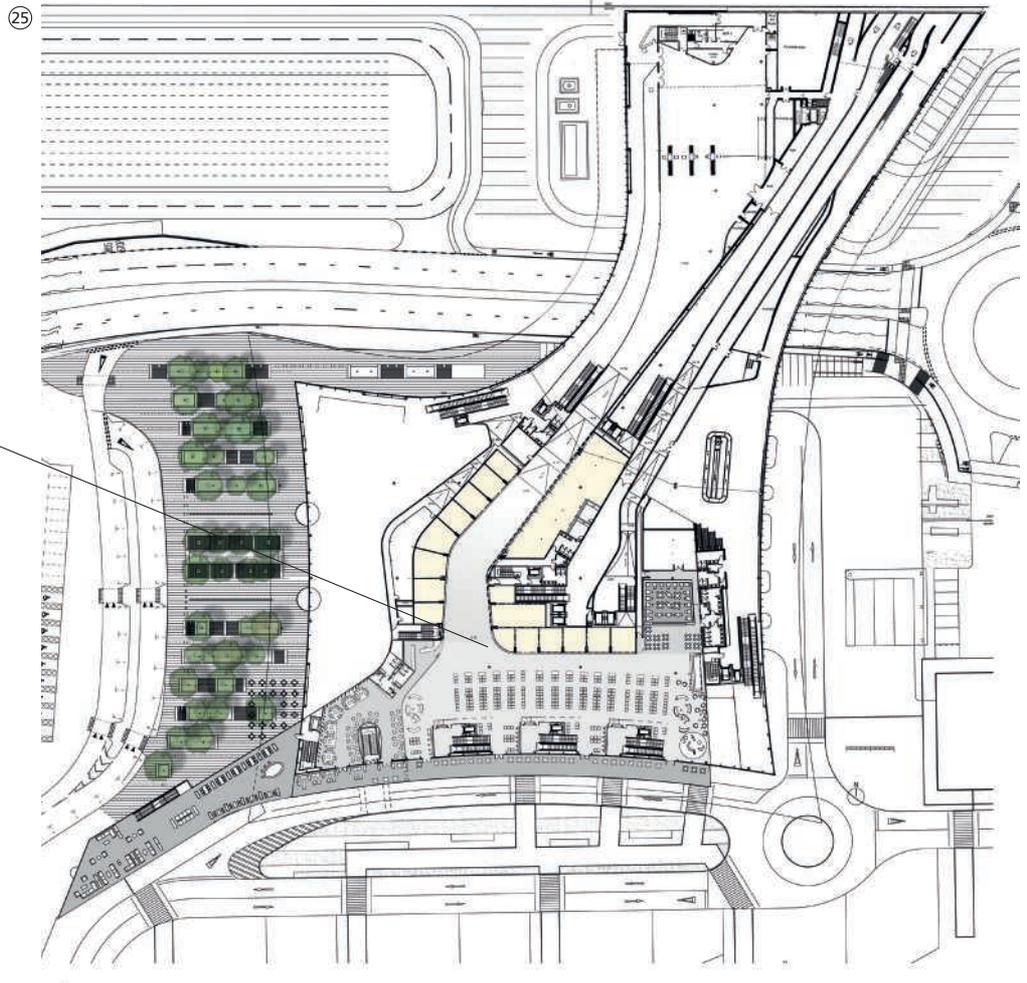


- [London Britannia Airport by Gensler](#)

speciale

Aeroporti

Attualmente in cantiere, il nuovo complesso sostituirà il Terminal esistente e verrà completato nel 2011



25, 26 e 27 Bblur architecture e 3DReid, Nuovo Terminal Aeroporto di Gibilterra, Gibilterra, 2011 (foto di Bblur Architecture)

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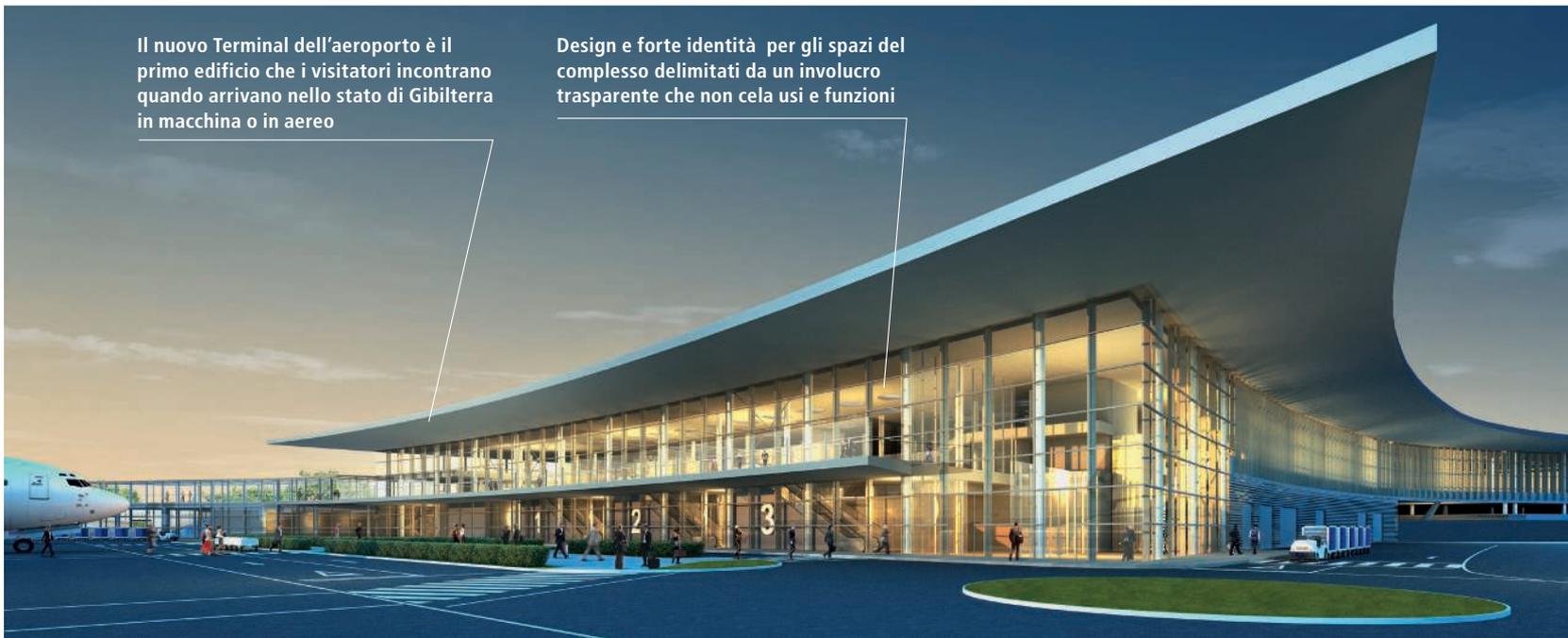


Ispirato dal paesaggio marino del sito, il Terminal ha una copertura che riprende lo sviluppo di una vela

Le pareti interamente vetrate sono ombreggiate dall'aggetto sinuoso della scultorea copertura

Lo spazio aperto, come la terrazza, divengono importanti punti d'incontro per chi viaggia e per chi resta

27



Il nuovo Terminal dell'aeroporto è il primo edificio che i visitatori incontrano quando arrivano nello stato di Gibilterra in macchina o in aereo

Design e forte identità per gli spazi del complesso delimitati da un involucro trasparente che non cela usi e funzioni

# UPGRADING THE ROCK

► Tall ceilings and the predominant use of white paint help to instill a feeling of space within the structure.



to 1,000 cars, located to the south of the runway. Another new car park will be built by the Eastern Beach and more parking will be provided on the site of the old terminal once it has been demolished.

Original plans called for the new terminal to open to departures in May 2012, but this was delayed until September 26.

## Design team

The concept for the building was to provide Gibraltar with a world-class facility and a prestigious 'business card' for visitors. The airport's unique

and complex location, with stunning views of the imposing Rock and the azure sea surrounding it on two sides, provided inspiration for the design teams at

3DReid and bblur architecture.

The 3DReid design team was led by Daniel Bérubé and Matthew Bedward from conception to planning until they left to set up bblur architecture in 2008. The two firms agreed to collaborate on the project. This collaboration worked successfully throughout the design, development and delivery phases, with Daniel Bérubé leading the project as 'concept guardian' and lead designer and working with Paul Green and Verena von Stempel of 3DReid and the Spanish contractor Dragados SA to deliver the terminal and associated infrastructure.

This ensured that Dragados SA, which was awarded the design-build contract, remained faithful to the original design brief. During the course of the project, bblur architecture was also commissioned to design the interiors and to redesign the terminal forecourt and adjacent public areas. Along with the main terminal building, 3DReid and bblur architecture designed the park and ride facility and the six level multi-storey car park on the opposite side of the runway. ↘

Gibraltar Airport opened its new terminal on September 26. **Luigi Vallero** paid a visit prior to the opening to assess the new facility.

Proudly serving 'the Rock' since 1939, Gibraltar's North Front Airport (GIB - see *Airports of the World*, Issue 6, p44) has earned itself a place in history as one of the world's more unusual. Its short, 6,000ft (1,828m) runway is crossed by the major road which provides access to the town from Spain, while the proximity of the famous Rock of Gibraltar often creates complex wind patterns that can make landing here rather challenging.

Despite offering only flights to the UK, the old terminal struggled to cope with increasing numbers of passengers. It was small, had only ten check-in desks, one baggage reclaim carousel, one security check point and two boarding gates.

This meant that if two or more aircraft were arriving or departing at the same time, the terminal was quickly subject to overcrowding. Over the past few years it became increasingly obvious to the Gibraltar Government that the territory needed a much more modern gateway.

## From concept to reality

On December 2, 1987, an agreement was signed between the governments of the United Kingdom and Spain to allow the joint civil use of the airport and foresaw the building of a new passenger terminal in the municipality of La Linea de la Concepción, just across the airport and to the north

▲ The airport's sparkling new terminal with the Rock of Gibraltar towering in the distance. (All photos author)

of the border with Spain. But this plan was blocked by the then Government of Gibraltar.

For the following two decades GIB continued to be excluded from European operations, except for those to the UK. Then, on September 18, 2006, the tripartite Córdoba Agreement was signed between the governments of Gibraltar, Spain and the UK. This finally ended all restrictions on civilian flights to and from GIB, including the prohibition of flights over Spanish land and the exclusion of Gibraltar from all EU agreements on air transport - thereby allowing civilian flights from all European nations. Underlining the new status, a daily Iberia service from Madrid was launched on December 16, 2006, the first time a Spanish aircraft had used the airport since 1979.

The decision to revamp the airport and begin the construction of a brand new terminal, related road access improvements and a general aviation (GA) terminal was

also taken in September 2006. Work on the new terminal began in 2009 and after two years the sleek new building was completed, finally opening on November 26, 2011 when all arrivals (but not departures) were switched from the old terminal. The first passengers to use these new facilities were off easyJet's flight EZY7295 from Liverpool.

To overcome the constraints of the runway/road crossing, a new four-lane diversion road and a tunnel section were also envisaged. When completed, the new runway tunnel will eliminate delays and tailbacks caused by having to give way to air traffic on the runway. The existing road crossing will remain in place for emergencies or in case the tunnel needs to be closed for maintenance. New car parks have already been completed, including a six-level facility with a capacity of up

▲ This curved corridor leads from security to the departure lounge.

► Shops and refreshment concessions were all in place by June 2012 in readiness for the full opening of the terminal on September 26.





desks, car rental booths and a snack bar as well as the check-in area, arrivals concourse and the General Aviation Wing which contains a VVIP lounge. After passing through security screening, passengers follow a curved corridor to the three boarding gates, passing several concessions on the way. A modern and elegantly-appointed VIP lounge is on the west side of the departure area with a restaurant/café opposite.

The first floor is characterised by curved glassed walls that allow in copious amounts of natural light and which provide extensive views across the airport. This openness of design gives an overwhelming feeling of space which the airport authorities hope will prove popular with passengers. Seen from above, the terminal resembles a huge leaf. The clever use of skylights, which are laid out to visually guide passengers

◀ An outside terrace offers superb views across the airport and the famous Rock.

through some of the inner areas, generates subtle 'animations' throughout the day by projecting discs of diffused sunlight onto the floor.

Certain features of the design result from the building's proximity to the sea, such as the need to manage the risks inherent in the corrosive marine environment and also concern about maintaining the appearance of the glazing, not just from salt-saturated air but also from windborne sand and dust particles. The design solution includes a special external cleansing system that intermittently rinses the façades to eliminate accumulated material. The de-ionised water used in the system further improves the effectiveness of the rinsing process.

The engineering team developed a holistic fire safety design that integrates a combination of passive and active measures which, along with management systems,

combine to give a simple but robust fire strategy for the building. This would provide protection for the large numbers of passengers and staff using the terminal by containing fire and smoke and would reduce operational disruption in the event of an incident.

With an impressive, modern and welcoming new terminal, Gibraltar and its surrounding Andalucian neighbours are confident the airport will encourage increasing passenger flows to this historic Mediterranean location. ✈

#### Acknowledgements

The author wishes to thank Claire Lalaguna, Account Director Satellite MPR, Peter Farmer, Partner 3DReid and Daniel Bérubé, Partner bblur architecture for their support in preparing this article.

#### Project Team

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|------------------------|------------------------------------|
| Client:                | Government of Gibraltar            |
| Architects:            | 3DReid and bblur Architecture      |
| Engineers:             | Buro Happold                       |
| Main contractor:       | Dragados SA                        |
| Aviation Consultants:  | NACO BV                            |
| Landscape Consultants: | Spacehub                           |
| Project Management:    | Gibraltar Land Reclamation Company |

#### Terminal in detail

The new structure was officially dedicated by HRH Prince Edward, The Earl of Wessex, on June 13, 2012. It has two levels and covers 210,979sq ft (19,600m<sup>2</sup>) giving a capacity of 1.5mppa. There are three departure gates (but no airbridges) and two baggage reclaim carousels. Six new aircraft parking stands were laid and have been in use for some time.

The beautifully-styled and clean design includes a large overhanging roof which provides shade and shelter from the hot sun; and fully-glazed walls which afford unrestricted views of the Rock and across the straits toward North Africa. While designing the new terminal, energy efficiency was a key consideration - and the roof's design helps by maintaining a cool internal environment, even during the hot summer season, without the need for air conditioning. High-performance double glazing and automated roller-blinds further contribute to enhanced energy performance and insulation.

In front of the terminal is a tree-lined landscaped forecourt which provides a pleasant welcome to Gibraltar and an ideal place to meet and greet travellers. Entering the main hall, the feeling of spaciousness continues - in stark contrast to the old terminal and its cramped confines. There is an extensive airside terrace, designed as a sleek extension to the departures lounge, which offers a now-rare opportunity for visitors to view the airside activities.

On the ground floor there are information



◀ The Victoria Lounge is one of several refreshment outlets available.

