

# King Khaled International Airport



Lightweight triangular roof sheets provide the building's interior with natural light.

**T**he King Khaled International Airport project has both arabesque architecture and state-of-the-art technology. The grassroots development comprises an airport accommodating up to 12 million domestic and international passengers annually, and an adjacent planned community.

The 87-square-mile (225-square-kilometer) development is composed of five passenger terminals; a control tower; a mosque and a ceremonial mall; a 10,000-car multilevel garage; two 13,800-foot (4,140-meter) parallel runways with associated taxiways; 27 support, 15 utility, and 5 general aviation buildings; and a self-contained community for 3,000 people. In addition to the passenger terminal areas, there are 65 buildings on the site, including an automated cargo terminal, a food preparation center, housing, and utility structures. There is also a 7,400-acre (2,996-hectare) office and industrial park for aviation-related industry and commercial services at the airport.

There are 20 miles (32 kilometers) of 4-lane limited-access highway, 425 miles (684 kilometers) of 2-lane paved roads, 37 miles (60 kilometers) of gravel-surfaced roads, and 20 bridges.

## BECHTEL'S ROLE

Bechtel provided concept to completion services, including planning, engineering, and construction management of the grassroots project. A master plan, economic analysis, complete architectural and engineering designs, and bid documents were completed for more than 50 major facilities. The work included all airfield work, lighting and controls, utilities, terminals, airline and airfield support, roads, bridges,



## Location:

Riyadh, Saudi Arabia

## Client:

International Airports Projects

Ministry of Defence and Aviation

## Scope of Services:

Master Planning

Design

Construction Management and Operations

Maintenance Planning and Services

## Project Duration:

1974-1997

## Total Installed Cost:

Client Confidential



## Significant Features/ Accomplishments:

- Grassroots airport to serve 12 million passengers annually
- Provided concept-to-completion services
- Client-directed reduction in scope to reduce budget 33 percent. Bechtel built half of the deleted items without exceeding reduced budget.
- Performed the engineering design to U.S. codes and specifications

## King Khaled International Airport (Cont'd)

telecommunications, meteorological work, parking facilities, signage, and landscaping.

Bechtel also performed the design and construction management of all highways, roads, and highway and taxiway bridges, the latter tolerating the weight of fully loaded jumbo jets.

A land-use master plan was completed for the Phase I development of the self-contained community. Bechtel subsequently managed the project.

During the design and construction phases of this megaproject, the client reduced the budget by 33 percent. Working in close coordination with the client, Bechtel completed the approved scope, and was able to build half of the deleted scope items without exceeding the reduced budget.

Upon completion, Bechtel was responsible for managing more than 20 subcontractors in the operation and maintenance of the facilities, and has assisted the Ministry of Defence and Aviation in other assignments concerning procurement and maintenance, as required.



*The airport complex, with its traditional arches and courtyards, is at the same time a modern self-sufficient city.*