
Construction of the Hong Kong Airport

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Tudor Walters is the Consultant Project Manager for the massive Hong Kong Airport Core Programme, a \$21 billion project with a very tight timeframe, a wide variety of engineered components and a high level of inter-contract dependencies. To further complicate matters, the British were about to turn their six million citizens and the airport project over to the mainland Chinese for governance, following a 99-year lease.

A single runway with no opportunity to expand supports the current Kai Tak airport, overburdened with the world's third largest number of international passengers and air cargo tonnage, located in the densely populated Kowloon area. Noise pollution is a serious problem, so developers decided on a site just off the north coast of Lantau Island, 30 km from Hong Kong's central business district. The two new runways would be partly on land, mostly on reclamation, stretching out into the bay off the fishing village of Tung Chung.

The cost of the expressways and railway to the new landing site would exceed that of the actual airport, but would also achieve a number of long-standing planning objectives and development needs. The road/rail double-deck Tsing Ma suspension bridge stretches to the island, longer than the Verrazano Narrows Bridge, and the Kap Shui Mun cable stayed box girder bridge enables a 23-minute rail ride to

central city. Tunnels, terminals and elevated highways were built by a wide range of international contractors using a 30% proportion of imported labor.

"Exceptional projects demand exceptional client and governmental responses," he said. By 1994 all contracts were awarded after debt-to-equity ratios for the airport and airport railway (being developed by wholly owned government corporations) were worked out among the UK, PRC and Hong Kong governments. Lump-sum fixed price contracts were awarded with strict penalties for schedule slips. On alternate Saturday mornings the contract managers would meet with government department heads related to the project to deal with issues, concerns, regulations and needs. Integrated management teams trimmed the overall budget twice, saving \$1 billion.

As of April 1997, every contract was running on budget. The freeways were open, and the airport platform was dredged and reclaimed, with terminal construction well underway. The new airport, within 270 minutes of half the world's population, along with its railway, is expected to open April 1998.

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