

Reaching for the Sky

This heading does not indicate a yet taller building, but that I became heavily involved with an airport, London City Airport⁵.

Mowlem was minded to proceed with a bold and highly innovative scheme to create an airport in the London Docklands. I was charged with moving this from concept to reality. It is now history that we steered this venture through one public inquiry, leading to the initial construction, and then through another inquiry leading to a lengthening of the runway. This was a truly fascinating project, partly as a business proposition, partly because it was technically adventurous and at the limits of what was achievable, partly because of its relationship with the local people, and partly because the politics defined the parameters of the engineering and vice versa. Two characteristic views of the airport are shown in Figs 13 and 14.

I shall touch upon just one aspect of the airport development: the negotiations to establish aviation surfaces adequate to allow the airport runway to be extended. I must not fall into detail, but suffice it to say that every airport is surrounded by notional surfaces which slope up into the air away from the runway and place limits on the heights to which buildings may be built. For an airport that does not yet exist, or a runway extension that is a proposed project, the boot is on the other foot: one has to establish a mode of aircraft operation, then agree with the



Fig. 13. Aerial view of London City Airport (courtesy of the Metropolitan Police Photographic Unit)

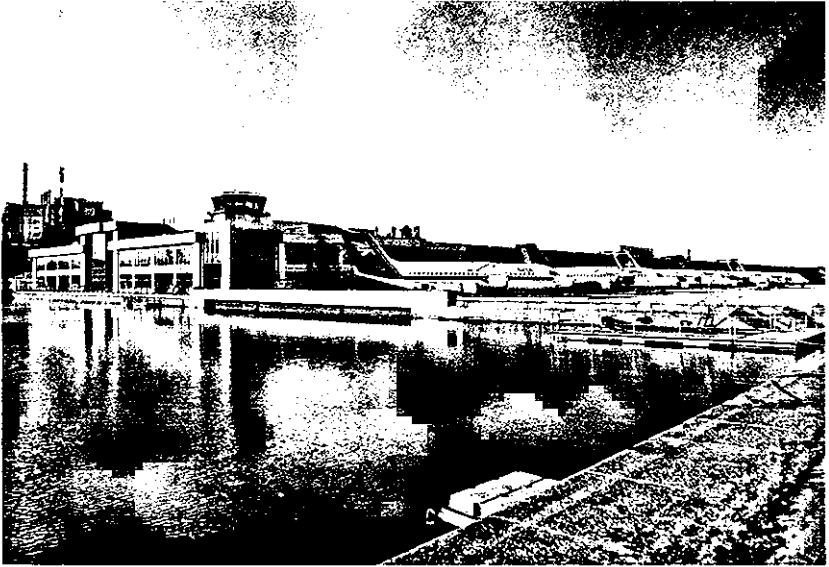


Fig. 14. London City Airport (courtesy of London City Airport Limited)

CAA a set of surfaces relating thereto, and then ensure that nothing has been or will be built which infringes those surfaces – perhaps through a period of many years when the reality of the extended runway is highly uncertain.

Negotiating from a weak position is something we are often called upon to do. At the time, the map of Docklands was dotted with projects that people were proposing to develop, many of them tall structures which would impact upon the operation of an extended runway. It was a matter of talking to developers along rather unusual lines. 'We suggest that you reduce the height of your proposed building in order that we may retain the possibility of a runway extension for which we do not have, and may never get, planning consent, to which some people are opposed, and which some experts believe can never be made to work in a technical sense.'

From the fact of today's operations from the extended runway, it is evident that this somewhat improbable line of discussion succeeded. Here are two examples.

Fig. 15 shows the Connaught Crossing swing bridge which was to be built very close to the end of the runway and accordingly, though not a very tall structure, would have entirely prevented the runway extension. The London Docklands Development Corporation agreed to reduce the height of the suspension tower by the necessary 2m and the picture shows the revised design as built.

Fig. 16 opposite is a view of the Canary Wharf Tower, 800 feet high. The planning permission was granted at 850 ft. I cannot say that our proposed runway was the sole cause of the change, but I can say that I spent a lot of time and effort urging that change.

I cite City Airport as an inverted example of my sub-text. No knowledge at all may sometimes be a benefit.

I was gripped by a great determination to extend the runway, and thereby be able to operate the BAe 146 regional jet. This was a trailblazing endeavour which, with help from a lot of people, became a reality. I sometimes think that the fact that I had never previously been involved in an airport project was an advantage. I simply did not have the experience to understand that the aspiration to operate the BAe 146 was unrealistic.

I have chosen the City Airport runway not only as another illustration of how very interesting the life of a civil engineer can be. It also makes the point that civil engineering is not just about steel and concrete. As was emphasised in the report of the ICE Presidential Commission in 1997, civil engineering is also about operation of facilities, about the environment, about people, about politics and about business.

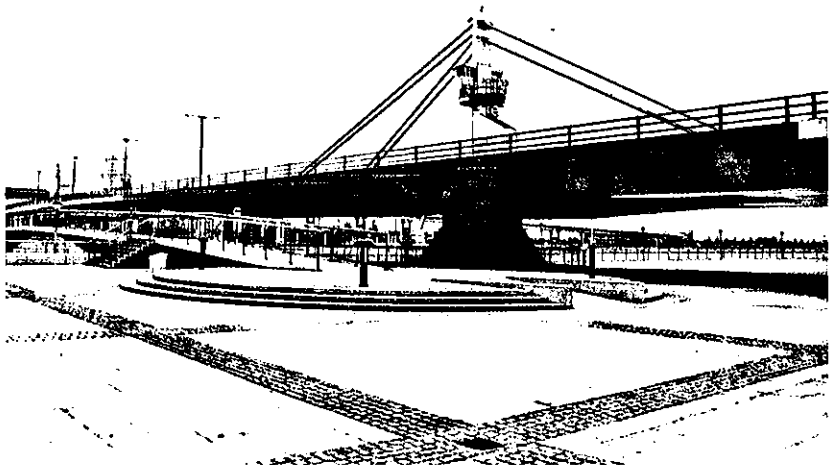


Fig. 15. The Connaught Crossing swing bridge (courtesy of London City Airport Limited)