IO FLIGHT

LONDON ROTOR-STATION DESIGN

Proposed Layout for a Charing Cross Station Site

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N May, 1951, Mr. Norman Dodds, M.P.,
submitted to the House of Commons a pro-
posal for a "helidrome" situated over the
Southern Region railway station at Charing Cross, London. To meet the requirements of the Ministry of Civil Aviation, the original arrangement has been modified, and was sub-mitted to the Minister on December 18th last.

Two runways, each 300ft by 150ft, are in-cluded as sides of a 300ft square, so complying with requirements of the Inter-Departmental Helicopter Committee. Helicopters can thus land and take-off at the same time without inter-ference. The main alighting platform is made of reinforced white concrete slab and armoured glass, and is supported at a height of about 98ft by reinforced concrete columns spanning the railway and surrounding roads. At the north end of the structure is a nine-storey building, housing suitable passenger handling and office accom-modation. Beneath the runways is a lower plat-form containing hangars and workshops to
which helicopters can be brought by lifts for
servicing. This is at variance with the ideas of
B.E.A. ; they visualize no maintenance, overhaul
or even refuelling, facilities at a city-centre "bus-station."

Mr. Dodds has put forward this ambitious scheme be-cause, as he says, he is concerned at the lack of real progress being made in this field, and feels that his suggestion provides a useful basis for discussion. A great advantage of the elevated landing platform is the significant reduction in the noise heard at ground level; the landing platform is intended to be acoustically insulated and should form a reflector which would be particularly effective during the critical period afte/ take-off, when the noise level is highest.
The actual design work has been carried out by Asian and Freeman, chartered architects and town-planners. In their opinion, the proposed South Bank rotor station would restrict the development of the surrounding area, and would also— unless mounted on an elevated platform—introduce severe noise problems; they also regard the suggested use of the roof of Waterloo station with disfavour, since this site is inland in a densely-populated area. The Charing Cross site has excellent unobstructed approaches [from the river.

Futuristic, and yet strictly functional, the proposed helicopter station is unlike any other
of man's structures. Presumably wind-tunnel model testing would be used to determine airflow in the landing area and aerodynamic stress within the structure.

Regarding the original proposal of May, 1951, the Ministry
of Civil Aviation commented that there might be objections
from the Railway Executive on the ground of safety, an
from neighbouring premises in the "overshadowed" are
Again, since this was to be a permanent structure, difficultie might arise when the proposed abolition of Charing Cros Station was carried out. On the other hand, there was doubt that a suitable international helicopter station could b built on this site within 18 months for an outlay of between £4,000,000 and £6,000,000.
Elevated "helidromes" have been mooted for over twent years past. But this project, unlike those that have gon before, may actually be built. The conception appears t embody many desirable features, and the site looks as go as any other. We believe that the time is now ripe for such structure to be built; enough has been learnt of helicopt operations to enable detailed plans to be made and it w have to be done before long.

POSSIBLE EXTENSION
— 400ft-Oia

This plan diagram shows the
alighting and take-off area only.
An opposite pair of quadrants is
chosen, according to wind direction,
to permit landing and taking off to
proceed independently. The plat-
form is floored with armoured glass
panels to provide illumination in the
workshops below. If the growth of
traffic justifies such a measure, it is
intended to extend the platform area
some 140 yd further to the right,
between the main office-blocks and
above Charing Cross Station itself.