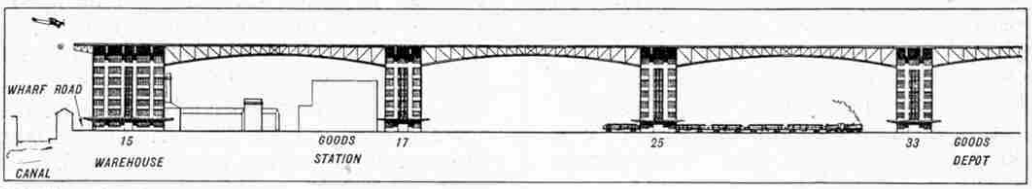
An Airport in the Heart of London

Unique Scheme for Elevated Aerodrome

IN countries such as Australia and Canada the great value of the aeroplane as a means of rapid transport can be appreciated far more than in England, for an aeroplane often makes it possible for a journey through undeveloped country to be completed in a few hours, where days would be required by surface transport. In England, however, the distances to be covered are much shorter, and consequently the time saved by air travel is less. Further, as most aerodromes are situated several miles from the centres of the towns they serve, much of the time that is saved in travelling by air is lost in the journey between the aerodrome and the town. This is particularly the case in London, owing to the enormous traffic congestion experienced during the busy hours of the day. A scheme that provides for the construction of an elevated airport in Central London is therefore of great interest, for passengers arriving at the aerodrome would be right in the heart of the city.



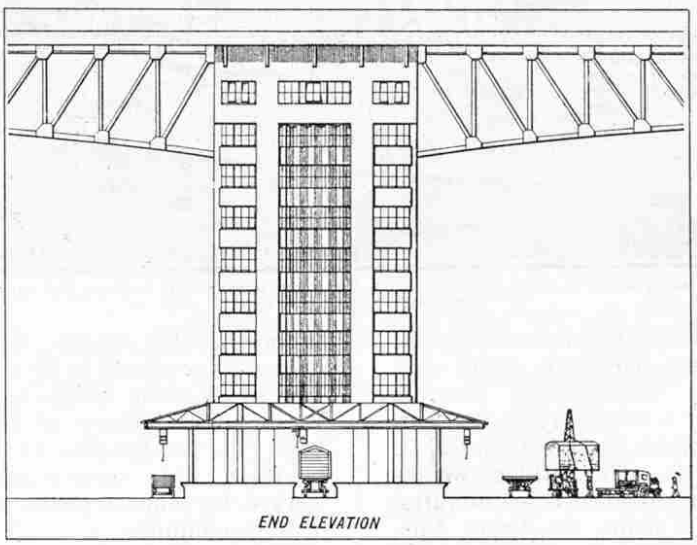
This illustration shows a sectional elevation of a portion of one of the elevated runways that are to be used on the proposed Central London Airport at King's Cross. For the illustrations accompanying this article, and much of the information, we are indebted to the Editor of "Modern Transport."

The proposed airport is to be built in the vicinity of the St. Pancras and King's Cross goods stations. It will be linked up with all forms of inland transport, as the aerodrome will be the site of an immense omnibus and long-distance motor coach garage and terminus, and it will be served also by the L.M.S., L.N.E., and Underground Railways. It will also be possible for freight to be distributed by means of the Regent's Canal in the immediate vicinity.

Opponents of the scheme say that it would not be in the interests of public safety for aeroplanes to fly low over densely populated areas, as would be necessary for all machines making use of the aerodrome. The use of the airport would be limited to commercial machines, however, which would be of the multi-engined type and would be controlled by specially licensed pilots. All modern multi-engined air liners are capable of maintaining flight with one engine out of commission, and thus if an engine should fail after an aeroplane had taken off from the airport, it would not be necessary for the machine to make an immediate landing, but it could continue its flight and make an emergency landing at Croydon or at one of the other aerodromes in the immediate vicinity of London. If engine trouble should be experienced in an aeroplane making for the airport after it had reached the boundaries of the city, it would be entirely at the pilot's discretion whether he should turn and make for an aerodrome in the outskirts, or carry on and effect a normal landing at the airport.

The danger of fire is another question that has been raised, but this would be eliminated by allowing only aeroplanes equipped with engines employing heavy oil, or some other fuel that is not readily inflammable under ordinary conditions, to use the airport. The degree of success that has been attained with existing systems of blind flying, and the use of radio when dense fog or other unsuitable conditions prevail, would also assist in keeping the airport free from accidents.

The scheme for the construction of the airport was conceived, and the designs were prepared, by the London consulting engineers and architects C. W. Glover and Partners. According to the provisional plans the aerodrome is to consist of four runways, each about half-a-mile in length and 250 ft. in width, which means that each runway will be about four times as long as London Bridge, and three times as wide. The runways will be 120 ft. above the ground and will intersect at the centre. They will be joined up at the ends by a peripheral runway. The segmental space between the runways will be left open in order to admit light and air to the space below. The runways are to be constructed of concrete, and to be provided with parapets along the sides to prevent machines or people from falling over.

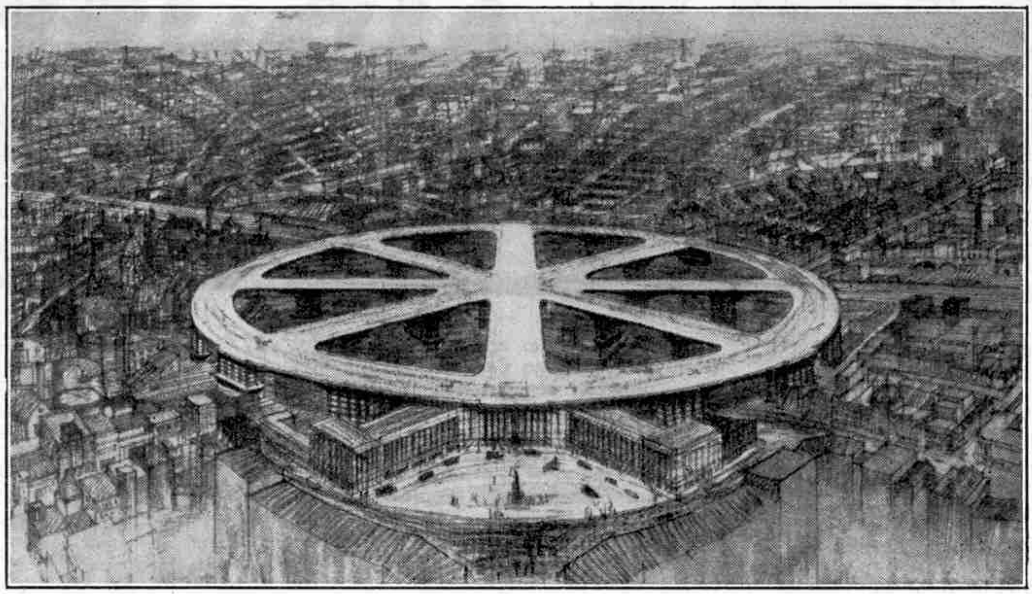


One of the pillars that will support the elevated aerodrome.

This system of runways is to be carried on elevated buildings to raise it clear of all obstructions, and to provide safe landing and taking-off facilities for all types of aeroplanes in all directions of wind. A machine will land on one of the runways and, after slowing

down, taxi round the circular way to set down its load of passengers and mails at the main buildings. It will then travel under its own power to a parking place, or to an elevator—similar to those employed on aircraft carriers—that will lower it to hangars accommodated in a number, probably four, of the supporting buildings.

An elaborate system of lighting has been planned for the aerodrome. Each of the runways is to be flood-lighted from units concealed in the parapets, which will make it possible for the surface to be brightly illuminated without the pilot being dazzled by the beam. All the runways will not be lighted up together, however, but only the one that is in the direction of the wind and is therefore most suitable for landing at the particular time.



An artist's sketch of the proposed airport, the estimated cost of which exceeds £5,000,000.

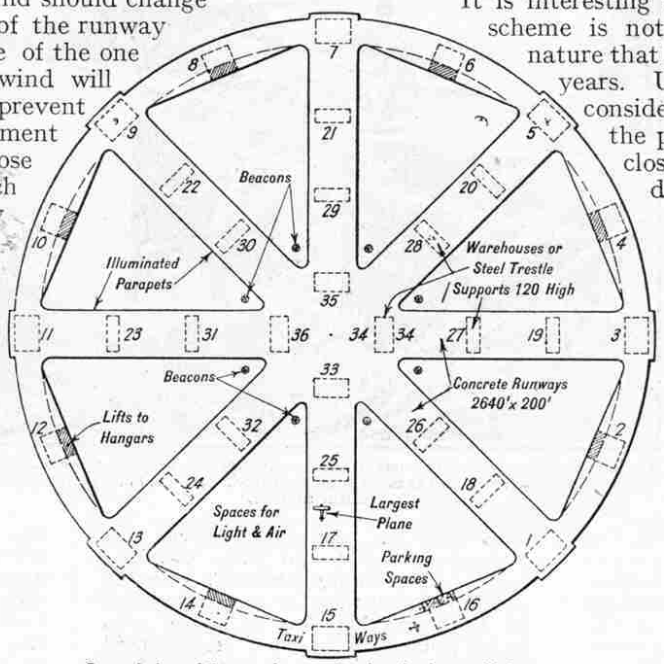
The switches that control the lights will be operated automatically, so that if the wind should change during the night the lights of the runway in use will go out, and those of the one in the path of the "new" wind will be switched on. This will prevent mistakes through errors of judgment on the part of the official whose duty it would be to switch the lights on and off if they were manually operated, for with an aerodrome of this nature such mistakes would probably have serious results.

It is interesting to note that in a model of the aerodrome that was on exhibition at the Charing Cross Underground Station, the mechanism for controlling the lighting was made up of "*Meccano*" parts.

The area that has been selected as most suitable for the erection of the necessary buildings is 130 acres in extent, of which 15 acres are actually built upon. The buildings are mostly very old, however, and no great difficulty should be experienced in obtaining permission to pull them down. The buildings to be erected would provide in all about 75 acres of floor space, and would be devoted to warehouses, offices, shops, flats, garages and hotel accommodation. A certain number of the buildings would be set aside as tenement houses for the use of people who had been dispossessed of the houses demolished. The work provides also for the construction of a new road, to be known as "*Aerial Way*," leading from Pentonville Road to the chief building, with a circulating area for buses and motor traffic in front of it. It would also be necessary for the goods yards and sidings at King's Cross to be replanned, and for an alteration of the alignment of the main passenger line to be made, in addition to the construction of several bridges. The estimated total cost is £5,000,000.

The scheme has the support of many influential people, and a company, known as Central Airports Ltd., has been formed to undertake the work. Colonel The Master of Sempill, A.F.C., A.F.R.Ae.S., has been appointed Aeronautical Consultant to the company.

It is interesting to note that the King's Cross scheme is not the only suggestion of this nature that has been put forward in recent years. Under one project that was considered, a large portion of one of the parks in London was to be enclosed and made into an aerodrome. Hyde Park would of course be most suitable for this purpose, but such a scheme would be certain to meet with strong public opposition, as have other schemes involving the enclosure of one of London's open spaces.



Ground plan of the aerodrome, showing the four radial runways.

An interesting drawing of an elevated aerodrome of the future was shown on the cover of our issue for May 1932. This was different from the King's Cross scheme, as the aerodrome was shown on the roof of a skyscraper, many hundreds of feet above sea level. Aeroplanes would land on the roof of this building and the passengers be carried down to the street by high speed elevators. It is of course possible that when helicopters and "Autogiros" have been developed more fully, elaborate landing grounds of any kind will be unnecessary, owing to the small areas in which such machines can take off and alight.