An Aircraft Position Indicator

"YOUR passengers don't know what's below. They can, by referring to 'FRED,' the minute-to-minute aircraft position indicator." This is the slogan chosen by Wing Cdr. C. Hole in connection with a neat instrument he has just evolved. It might be explained that "FRED" is formed by the initial letters of "Flight Route Easily Determined."

On a cross-country flight passengers are always interested in knowing just where their aircraft is, whether there are any interesting features or landmarks in view, and whether their machine is keeping its course and its time-table. Not all commercial aircraft will be carrying "hostesses," and, even if they do, a map which gives all the information at any moment is a great asset.

Self-contained Unit

The Hole position indicator comprises a strip of map of the route, over which a small model aircraft progresses. The model is driven by an integral prime mover, which can, of course, be either clockwork or an electric motor. The main point is that it is self-contained and needs no wiring-up or other connection to the aircraft, other than that of fixing it to a wall or bulkhead. The speed of the model can be set to tally with the ground speed of the aircraft, the range of its equivalent speed being from 100 m.p.h. to 400 m.p.h.

One drawback of the indicator is that it must necessarily show the route as a straight line, and thus it must fail to give a realistic impression on routes where changes of course occur several times. This, however, is remedied to some extent by indicating on the map any angular changes of course.

The map is stowed on two spools and covers some 8,000 miles on a scale of 20 miles to the inch, or 4,000 miles on a scale of 10 miles to the inch. A route length of approximately 600 miles is under immediate observation, and if a time-table is posted near the instrument the passengers can at any moment see whether or not the machine is keeping to it.

The least valuable psychological effect of the device is that when the aircraft is flying in fog or over cloud, so that the ground is obscured, passengers can see on the map how far they have progressed (if the pilot is on his course!) and thus avoid that "lost" feeling.

The Hole position indicator shown mounted on the iron wall. As an alternative two can be used, one on each of the side walls. In the upper picture of the indicator itself can be seen the model, and the airspeed indicator and clock at each end of the instrument.

LOW-FLYING IN CANADA

The crash of the United States Army Air Force bomber into the Empire State Building had its reverberations in Toronto when Mayor Robert Saunders issued a statement declaring that too many liberties were being taken by aircraft flying over the city, and that low-flying over the metropolitan area must come to an end. Mr. Saunders cited as a typical example the fact that someone has been flying an aircraft too close to the roof of the Mayor's house.

The Mayor disclosed he had written officials of the R.C.A.M.T. in Ottawa, the Civil Aviation branch of the Department of Transport and of the de Havilland aircraft plant at Subadian. Mr. Wetton requesting that existing low-flying regulations be tightened up and their enforcement be more stringent.

Later, Mayor Saunders carried the anti-low-flying campaign a step farther when he induced the Board of Control to approve a request to the Dominion Government to institute a law setting out minimum heights at which aircraft may fly over Canadian cities.

The stunt of two Mosquito aircraft which flew low over the city and attracted the attention of thousands and the queries of scores—including the Mayor—provoked the action.

Mr. Saunders said there is no set height at which aircraft must fly over Canadian cities. Aviation officials say the aircraft must keep high enough to glide to a landing outside the cities in case of trouble. In Toronto that height is estimated at about 3,000 feet.

At Ottawa, a Transport Department official explained that minimum heights for flying over cities were never defined in Canadian flying regulations because the circumstances were not equal in every city. He quoted the regulation as saying: "No aircraft shall fly over any city, town or village except at such an altitude as will enable the aircraft to alight outside the city, town or village should the means of propulsion fail through mechanical breakdown or other cause, except for the purpose of alighting or taking off from a licensed airport within the limits of the city, town or village."

The official added that the minimum height for a Mosquito would be lower than, say, for a Hurricane, because the Mosquito has two engines and can remain airborne if one engine fails. He said that common law also covered low flying, for anyone could lay information against a pilot flying too low over a city on the grounds that he was committing a public nuisance.

This was covered in every city ordinance.