Going Places

COURTSEY OF YRM ARCHITECTS & PLANNERS

People Mover
In common with many airports in the United States,Gatwick Airport to the south of London has installed a revolutionary inter-terminal transportation system that combines the directional stability and automatic driverless operation ability of the light railway with the comfort and convenience of the bus or coach. Designed and built by the Westinghouse Corporation, famous for its rail signalling systems, the People Mover can carry up to 100 passengers at a time

Transporting goods and people from place to place in this increasingly crowded world is a difficult business. The use of computers helps matters considerably

A century and a half ago it took three months to travel from Europe to Australia. In the 1980's that same journey could be accomplished in less than half a day. This technological miracle would not be possible, however, without extremely sophisticated methods of computerised vehicle control.

Air travel is the form of transportation that poses the most demanding problems. Heathrow Airport in London, for example, handles more than a thousand flights every day, with 120 aircraft movements an hour at peak periods. Without computer assistance in controlling this activity, the system simply could not operate.

Let us take the case of a traveller who wishes to go from London to New York. From the travel agents where a ticket is bought and a seat reserved (using Prestel as a gateway into the airline's own reservations computer), to touchdown at Kennedy Airport, perhaps as many as 15 different computers will have been directly concerned with the journey. Let's examine computer involvement in air travel in more detail.

The first consideration must be the standard of the aircraft itself. Modern passenger aircraft cost a great deal of money. In order to maximise the return on their investment, operators must keep the aircraft in 'as new' a condition as possible, and the key to this is 'planned maintenance'. After a predetermined number of flying hours the aircraft will return to its engineering base, where personnel will have access to computerised records of the aircraft's complete history from the first day of its construction, down to the serial number of every part, both past and present. The records will detail: every engineering operation the plane has undergone; reports on its performance from flight engineers and other aircrew members; fuel consumption figures; and any other piece of data that could conceivably be of interest. The home computer user might consider applying these same methods — though not in such detail, perhaps — to the maintenance of a car.

Only when the maintenance schedule is complete and up to date will the aircraft be returned to service. It will then become a component of yet another computer system — the airline's operational control system. This allocates aircraft to routes; places orders for fuel at various points along those routes; and arranges for crew, meals, in-flight entertainment and the multitude of other arrangements necessary to transport three or four hundred people halfway around the world.

Another computerised control system operates within an airport itself, where officials must cope with the huge demand for their often limited facilities from airlines to whom even a few minutes' delay might mean a considerable loss of money. It is only by means of computerised scheduling that this operation can be successfully accomplished. The airport's computer system will