

## Wind tunnel

Airlines require various types and sizes of aircraft to meet the unique requirements of each category of air travel. For intercontinental routes supersonic transports will soon be available to speed passengers to their destinations on flights of a thousand miles or more. Since the supersonics cannot be employed over built-up areas because of the damaging shock waves they generate, national routes will continue to use stretched versions of subsonic jet aircraft or the new jumbo jets. On medium range routes, smaller jet types already fill requirements.

However, a major problem has arisen with respect to the use of small jet and turbine aircraft on short-haul inter-city flights. Air traffic control problems at large airports are multiplying, mainly because more people are flying. Precious minutes are lost in holding patterns as traffic jams in the air around airports increase. On-ground travelling time is becoming a problem as rapidly growing populations put more and more automobiles on

the road, slowing the traveller on his way to and from airports, and high noise levels around air terminals are forcing these terminals to move farther away from urban areas. Such factors will eventually make it necessary for average commuting passengers to spend more time getting to and from airports than they spend in the air.

A recent study in the United States on short-haul routes showed that passengers are being slowed down to average speeds of sixty to seventy miles an hour on point to point 200 to 300 mile flights! In some cases, they spend more time travelling by air than would be necessary to make the same trip by automobile at a great deal less cost.

To help to solve these problems, a new breed of aircraft has been conceived to move short-haul freight and passenger traffic and make such operations competitive with ground transportation. Called STOL (short take-off and landing) aircraft, these machines are able to operate from small

airports built close to business and residential areas.

A promising new design which will provide Canadian STOL service is the DHC-7 being developed by de Havilland Aircraft of Canada Limited, Downsview, Ontario. The design has progressed to the point where an 18-foot model of this proposed aircraft now is being tested in a huge wind tunnel operated by the National Research Council of Canada.

The DHC-7 is designed to carry 48 passengers in airline comfort from 2,000 foot downtown STOL ports. The DHC-7 will be the quietest airliner ever produced, with a noise level difficult to detect above the background of normal city traffic. This unique characteristic will provide unobtrusive and acceptable operation into built-up areas where the noise of conventional aircraft would not be tolerated. The aircraft is the result of more than two years of intensive market study and engineering development by de Havilland

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Artist's conception of DHC-7 STOL aircraft operating from a downtown STOL port.

*La compagnie canadienne de Havilland vise à obtenir un ADAC qui pourrait décoller et atterrir en pleine ville.*