of all the forms of heavier than air flight it is the phenomenon of flying in ‘ground effect’ that presents the commercial operator with the most advantageous combination of speed, fuel economy and payload capacity. An optimum design wingform passing close above a surface can increase its aerodynamic lift by as much as 50 per cent while at the same time significantly reducing drag. It is this dual efficiency of span and chord dominated ground effects that reduces the relative power requirement and increases the lifting capability of the ‘wing in ground-effect’ (WIG) vehicle.

Flying at very low altitude - just a few metres above the surface - the WIG is supported by its own dynamically generated cushion of air which is sustained by the craft’s forward motion. Unlike an amphibious hovercraft there is no specific requirement for lift machinery or peripheral skirts to retain the air cushion. The hovercraft has its place - but the WIG offers considerable niche potential.

The prospect of large commercial ferries utilising WIG technology is clearly some way off but smaller craft with capacity for eight passengers and crew are about to enter service. The next generation of craft with increased capacity for 20 or 40 passengers will not be far behind.

There is also interest in the military application of WIG craft. Rapid surface interdiction at speeds above 80 knots is an extremely attractive option. As will be the prospect of effecting a beach landing of a small group of troops and equipment from over the horizon in a matter of minutes. The combination of small size, high speed, low noise and the ability to construct a stealthy body shape of low-signature composite material positions the WIG neatly between conventional surface landing craft and helicopter alternatives.

Flightship Ground Effect Pty, the Australian company leading the commercial development of WIG craft, is currently building the first of four type FS8 passenger craft for service by a tourism operator in the Maldives Islands. Another similar craft is to be delivered to a customer in the United Arab Emirates. Reflecting the suitability of potential operational location for WIG craft, the company has appointed sales agents in the Mediterranean, Middle East and Caribbean regions, and also in Thailand, Malaysia, India and Pakistan. Flightship has also entered into negotiations to establish a joint venture base on the east coast of the USA where potential customers for 15 craft have been identified.

Moving from prototype development into full