

engines, small turbofan engines, and auxiliary power units.

In early 1994, it was confirmed that the company will invest some \$19 million over the next three years in the construction of a new Customer Support Centre in Singapore to better serve P&WC operators in the Asia Pacific region.

Incorporated in 1903, **Canadian Marconi Company (CMC)** has won international renown for excellence and innovation in the design, manufacture, integration, and support of avionics, communications, radar, and ground-based navigational systems and aids.

Some 80% of the company's products are exported to clients in over 80 countries and its product line includes airborne navigation systems, display systems, monitoring and control systems, and airborne SatCom antennas. Around the world, its systems can be found on more than 100 aircraft types.

Canadian Marconi's new airborne Satcom Antenna will play a major role in providing enhanced and reliable communications to airlines, comprising, as it does, a key part of an overall system which provides passenger phone service and cockpit voice and data communications capabilities where other forms of communication are poor or unavailable.

This new antenna has been approved by **Inmarsat**, the international organization which operates a network of satellites for commercial communications. It entered service in early 1993 on board Swissair's fleet of McDonnell Douglas MD-11 wide-body aircraft.

Its latest GPS navigation sensor has been selected as a standard offering on the new Boeing 777 aircraft. United Airlines and British Airways have also specified the system for their Boeing 777 fleets due for delivery in 1996 and the product will subsequently be introduced on other Boeing aircraft models, including the Boeing 737.

A pioneer in the Québec aviation industry and a recognized leader in technological innovation and engineering design worldwide is **AlliedSignal Aerospace Canada**.

The company has become synonymous with innovation and quality in many aviation-related fields, including aircraft engine control systems and accessories, as well as systems for environmental control, power management and generation, communications, and ice protection/detection, plus repair/overhaul support services.

Indeed, the majority of the western world's civil transport aircraft carry electronic environmental control systems designed, developed, manufactured and supported by the company. It has also manufactured over 100,000 fuel control systems which have been incorporated in more than 100 airframe applications and which have amassed over 125 million flying hours.

More recently, the company was selected by Boeing to develop electronic bleed air control systems for the high bypass engines for its 777 aircraft program, resulting in both fuel economy and reduced maintenance benefits.

**Rolls-Royce's** accomplishments range from Merlin engines for winning racing aircraft in the

1930s, as well as for the Spitfire, Hurricane and Lancaster and others during World War II, to the Aero RB211 engine of today.

In Montréal, where the company's origins go back to 1947, its aim in aviation is to reduce overall engine operating costs by devising better repair schemes and tailoring services to the specific requirements of its customers.

In 1988, Rolls-Royce Canada became the first North American company to provide full support for the Rolls-Royce Tay engine, which powers the Gulfstream IV, the Fokker F100, and now the Boeing 727QF.

The re-engining of the Boeing 727QF with the Tay engine enables an operator to surpass, by a significant margin, requirements of Stage 3 noise guidelines, which are the strictest noise-abatement standard established by the U.S. Federal Aviation Administration.

Generating extremely strong interest in the aviation industry is the world's first laser ultrasonic inspection system, created and perfected over the past five years by **UltraOptec Inc.** Known as LUIS, this new technology uses lasers to generate and detect ultrasound and solve many needs and problems occurring in the steel industry.

It is particularly useful in the aeronautics industry for inspecting complex parts made of composite and other materials. Capable of inspecting parts at a distance of several feet and at angles up to 45 degrees, there is no need for contact with the part to be inspected, which constitutes a considerable advantage. ➔