

Spar wins largest surveillance system contract

Spar Aerospace Limited, an advanced Canadian technology company, has been awarded an \$85.8-million contract to develop a naval infrared search and target designation system for Canadian and US ships. It is the largest project ever approved under the Defence Development Sharing Agreement between the two countries since its inception in 1963.

Work on the program, which will be funded by the United States Navy and the Canadian Departments of National Defence and Regional Industrial Expansion, will be carried out at Spar's facilities in Toronto and Kanata, near Ottawa. Major subcontracts to Computing Devices of Canada in Ottawa, General Electric Co. in Syracuse, New York and Scientific Atlanta in Atlanta, Georgia are also involved.

The infrared search and target designation (IRSTD) system complements modern ship-borne active radar surveillance capability. It is a passive, electro-optical, ship-borne surveillance system that is able to detect aircraft and missiles as well as observe surface features like ships, coastlines and icebergs.

As a passive system, IRSTD cannot be detected or engaged by anti-radiation missiles and is not vulnerable to electromagnetic jamming. It provides a capability for navigation and station keeping in darkness and bad weather while operating under radio and radar silence.

The equipment consists of an above-decks stabilized scanning assembly and below-decks processing, control and display consoles. It is suitable for installation on ships of about 3 000 tonnes displacement or larger and can readily be integrated with ships' data systems or individual weapons systems.

An advanced development model of the equipment has already undergone highly successful land and sea trials. Incorporating improvements indicated by the trials, Spar will create three engineering development models, two for the US Navy and one for the Canadian Department of National Defence. The full scale engineering development program which will include extensive sea trials to meet full scale military operational requirements, will be completed over the next four and a half years.

A new, multi-purpose air cushion vehicle

Three Ontario companies have achieved a signal success in their joint venture to develop and market a multi-purpose air cushion vehicle (ACV). The Model 140 has been awarded Department of Transport certification and the first craft has been shipped to a customer in British Columbia.

The focus of activity is Air Trek Systems Ltd., operating from the facilities of Omnitech Steel Works in Chatham, Ontario, with the support of consulting engineer Derek Jones

of Jones, Kirwin and Associates in Hamilton. The Model 140 has its origins in a study contract awarded by the Lower Thames Valley Conservation Authority to Jones for the design of an ice-breaking ACV capable of resolving the flooding problems experienced in the Chatham area every spring.

Omnitech saw an opportunity to diversify its operations and utilize the experience gained from more than 34 years in the design, engineering, manufacture and in-

stallation of turnkey systems and special equipment for the automotive, food processing and agricultural industries. Air Trek was incorporated in 1982 and the first Model 140 was shipped last December to VPR Holdings Ltd. in Coal Harbour, British Columbia, to support the logging and mining operations in Quatsino Sound.

After a flurry of activity in the 1960s, the pleasure ACV has virtually disappeared from the Canadian scene, probably due to its performance limitations and high cost. The larger ACVs used for commercial purposes have been developed through the aircraft industry and generally utilize aircraft structural techniques and gas turbine engines.

Cheaper to buy, cheaper to run

The Model 140, a 1 360 kilogram payload craft, is aimed at the commercial market but is appreciably cheaper to both purchase and operate than its relatively sophisticated competitors.

The lower cost of Air Trek's new ACV is achieved through the utilization of welded, marine grade aluminum and a 350-horsepower turbo-charged Caterpillar V-8 diesel engine.

Over-all dimensions of the Model 140 are: length 11.2 metres and width 5.7 metres. The longitudinal sponsons are hinged and can be folded, reducing the width to 2.8 metres for transportation on a flat-bed truck or in a C130 aircraft, or removed for transportation in a standard 12-metre container.

(Article from Canada Commerce.)

Aid for energy in Guinea

Canada has signed an agreement to provide \$4.8 million in assistance aimed at strengthening the energy production capacity and stimulating various economic sectors in Guinea.

Under the administration of the Canadian International Development Agency for Canada and the Société nationale d'électricité (SNE) for Guinea, the project will involve shipment of electrical equipment and machinery to maintain the Conakry distribution network and the Donkea and Grandes chutes stations. The restoration and modernization of SNE's storage facilities in Tombo are also included.

Four Canadian experts will be sent to Guinea to provide technical assistance. Three will teach at SNE's development centre in Conakry and the fourth will act as a consultant in stock management.

The various phases of the project are expected to be completed by 1988.



The Air Trek Model 140 in winter conditions on Lake St. Clair.