

aviation intelligence

Canadian Satellite?

Unconfirmable, unattributable, and so unimpeachable, reports that Canada will launch a two-pound earth satellite from Fort Churchill this year using an American-supplied Jupiter C missile (the U. S. Army's Explorer satellite vehicle) are vigorously denied by officials of the Canadian Armaments Research and Development Establishment, the agency most likely to handle any such program in this country. Reports on the project bring to mind remarks of CARDE officials during a recent press tour to the effect that as spectacular as satellites are ("our boys would love to be in on such an effort") they have not yet provided complete data on flight characteristics at hypersonic speeds in space. There are still many properties of such vehicles which remain unknowns. CARDE's missilemen feel they can get more for their limited research dollar by pursuing their unique program of ground simulation to get the aerophysical information relevant to their anti-ICBM investigations.

NORAD Decision Awaited

Conflicting comments on the state of Canadian/American co-operation over the North American Defense Command continue. While some observers have seen tightening up of U. S. command policy as a further hindrance to negotiations, Canadian Government spokesmen have predicted an early settlement. Meantime a U. S. source reports a revision in the plan to locate anti-missile sites in the Canadian Arctic. Indicates that U. S. defense officials favor building the sites in Alaska and the Scandinavian Arctic possessions.

Turboprop Caribou

Word is that the de Havilland DHC-4 Caribou transport has been designed with a view to adaptation to turboprop power in a later model if demand merits. The piston engined edition is being fitted with two Pratt & Whitney R-2000-D5's which, it is claimed, will get the Caribou off the ground in 450 feet. Only 770 feet will be needed to clear a 50-ft. obstacle. At full gross weight the landing run will be 300 ft. Obviously this STOL performance will have to be sacrificed to some extent in a turboprop version. (See page 29 of this issue). No selection of a possible turboprop power unit has been made. Presumably the Rolls Royce Dart engine would be a hot contender.

Missile Age Support

Built for fast military and commercial transportation, the new Lockheed twin-jet Jetstar is being billed as the ideal vehicle for shipping essential supplies and equipment to missile launching sites. It is reported to have excellent short-field performance. Flies at 600 mph.

Speed Record For Arrow?

Reports that the Avro Arrow has exceeded 1000 mph with ease in level flight add fuel to the rumor that she will be making an attempt on the World Speed Record. With a reputed design speed of something like 1,600 mph, the Arrow would have little difficulty in sustaining more than the current speed record of 1,207.6 mph, set up by a McDonnell F-101A Voodoo. This figure was only a slight increase on the previous record of 1,132 mph, held for a substantial period by the British Fairey Delta. The Arrow is one of several aircraft known to be able to exceed the existing record, and is probably the fastest straight turbojet airplane in existence. Could well be that the Arrow's attempt on the record might be made as part of the celebrations for the 50th anniversary of powered flight in Canada.

Aerial Mapping Breakthrough

Automatic electronic device claimed as a major breakthrough in the science of aerial mapping has been produced by the Photographic Survey Corporation, of Toronto. Device is said to speed up the process of obtaining information from photographs many times, compared with previous methods. PSC, through its U. S. associate, Photronix Inc., recently pioneered electronic computation of engineering data from picture "mosaics." Now the firm claims to have pioneered electronic perception in the collecting of information phase of the process. New device is known as Auscor (Automatic scanning correlator) and is said to have military reconnaissance applications for photography from aircraft or outer-space missiles. It senses the relative displacement of images in two vertical aerial pictures taken from different positions but having overlapping fields of view. Replaces the perception of human operators.

Canadian Equipment For USAF

Airborne mapping equipment, designed and built in Canada by Canadian Applied Research Ltd., Toronto, has been chosen by the U. S. Air Force to assist in a new mapping program. Designated the MK5 Airborne Profile Recorder, this equipment is being fitted in specially adapted Lockheed C-130 transports (as shown in a photograph carried in Canadian Aviation last month). Employing precision radar designed for air survey work, the equipment measures and records the rise and fall of land beneath the airplane. Measures topography from 1,000 to 35,000 ft. with a high degree of accuracy, and records both the height of the terrain above sea level and the distance between the plane and the ground. Canadian Applied Research is a member of the A. V. Roe Canada Ltd. group.