

Portable station for Arctic satellite communications

The Canadian oil industry and Canada's telecommunications carriers are carrying out a unique experiment in the extension of voice and data communications to the high Arctic.

Co-ordinated by the Canadian Petroleum Association, Telesat Canada, Trans-Canada Telephone System and Canadian National Telecommunications direct dial telephone and teletype service has been established between Calgary and oil rigs located in the Mackenzie Delta.

The service is provided through Anik 1, Canada's domestic communications satellite, via a transportable earth station furnished for the experiment by Hughes Aircraft Company.

CNT, which already provides public telephone and other telecommunications services to the Western Arctic, is working with TCTS and Telesat in investigating the benefits of portable earth-station facilities in the provision of special temporary communications.

Local call, 2,000 miles away

The oil rigs will be directly connected to the Alberta Government Telephones exchanges and the CPCN Telex exchanges in Calgary. This means that all calls to and from the remote sites will be local calls, even though they originate 2,000 miles away.

The actual message signal will travel about 50,000 miles. A call transmitted by the remote earth terminal will be relayed via Anik, 22,300 miles away, to Telesat's main earth station at Allan Park, Ontario, and then routed to Calgary over dedicated terrestrial links.

Gulf, Imperial and Shell, the three major operators in the Delta, are initially involved in the trials.

The Mackenzie Delta experiment is intended to demonstrate the capability of the marriage of the new satellite technology and the terrestrial facilities of the telecommunications carriers in meeting unique communications needs of Canadian industry in remote areas.

Royal Canadian Air Force fiftieth anniversary

Although the Royal Canadian Air Force (RCAF) no longer exists, fond memories of it are still alive and well. In April, hundreds of former RCAF personnel plus present day-air element members of the Armed Forces attended observances, both in Canada and overseas, to mark the fiftieth anniversary

of the founding of the Royal Canadian Air Force.

The RCAF came into existence on April 1, 1924, with a strength of 300 officers and men. This date, however, does not mark the beginning of Canadian military flying since approximately 22,000 Canadians served during

the First World War with Britain's Royal Flying Corps, Royal Naval Air Service and Royal Air Force. Just before the war ended, Number 1 Canadian Wing of the Canadian Air Force was formed but shortly after the war this force, which consisted of two squadrons and a headquarters, was disbanded.

On February 28, 1920, the Canadian Air Force was re-formed as a non-permanent force then, some four years later, it was granted the "Royal" prefix and the motto - *Per Ardua Ad Astra* - through adversity to the stars. In the postwar years the RCAF carried



Sergeant Shatterproof marches proudly on. Former members of the RCAF will recall with nostalgia the indomitable NCO who, along with his unsolicited advice to senior officers, appeared regularly in the RCAF magazine Roundel.

out many tasks such as forestry patrols, aerial survey and anti-smuggling, which are not generally associated with military activities.

Second World War

Then came the Second World War and a new generation of Canadians flew in the propwash of their illustrious predecessors. They lived up to their reputation. Thousands of Canadians flew with distinction from the fog-shrouded



Canada's Billy Bishop was the British Commonwealth's leading fighter pilot

in the First World War. He shot down 72 enemy aircraft.