

If a plane crash occurs, the craft's emergency locator transmitter (ELT) is set off automatically. The signals are received by the satellite and relayed to a ground station.

Information from the satellite is used to estimate the location of the accident. In Canada, the ground station sends the information on the accident to the mission control centre at Trenton, Ontario.

Canada is playing a key role in an international demonstration of a satellite-aided search and research system (SARSAT). The program, which began in September 1982, helped to save 36 lives during its first seven months of operation. Canadian-built SARSAT equipment was carried aboard the US NOAA-E weather satellite, when it was launched in spring 1983.

Telesat Canada's 3.7 metre, 12/14 GHz antenna was used during the successful climb of Mount Everest by a Canadian team in October 1982.

Teleglobe Canada, a federally owned corporation responsible for international telecommunications, represents Canada on major international satellite organizations and offers their services throughout the country. The company has been acclaimed world-wide for its reliable, cost-efficient network.

International Telecommunications Satellite Organization (INTELSAT)

Teleglobe's four earth stations link Canada to the world via satellite through the INTELSAT system. (Teleglobe also has an extensive submarine cable network.) INTELSAT was formed in 1964 when Canada and ten other nations signed the first agreement for an international satellite telecommunications system. It has since grown to 108 members and owns and operates 15 satellites—nine over the Atlantic Ocean and three each over the Pacific and Indian Oceans. Together, these spacecraft carry about two-thirds of the world's international telephone calls, Telex and telegram messages, television broadcasts and data transmissions.

Though its major need for INTELSAT satellites is for international telephone calls—which account for about 80 per cent of its daily telecommunications volume—Teleglobe has also

used them to televise special events including:

- *The 1976 Olympic Games in Montreal.* Teleglobe's efforts made them the most widely viewed event in history at that time. It transmitted about 800 hours of coverage to Asia, Europe, Latin America and Africa.
- *The 1982 Economic Summit at Montebello, Quebec.* Proceedings were broadcast back to participating nations: France, Italy, Japan, United Kingdom, United States and West Germany.

The Canadian space industry will help build the next generation of INTELSAT satellites. Spar Aerospace Limited and Com Dev Ltd. are the Canadian subcontractors to Hughes Aircraft Corporation for the development of subsystems for at least five, and potentially as many as 12, INTELSAT VI spacecraft scheduled to be launched starting in 1986.

International Maritime Satellite Organization (INMARSAT)

Canada was one of the founding members of INMARSAT established in 1979 to improve global commercial maritime satellite communications and marine distress and safety communications for ships and offshore drilling rigs. INMARSAT, now with 39 member countries, operates six satellites over the three ocean regions. Through this system, Teleglobe brings Canadians in touch with vessels anywhere in the world by telephone and Telex.

