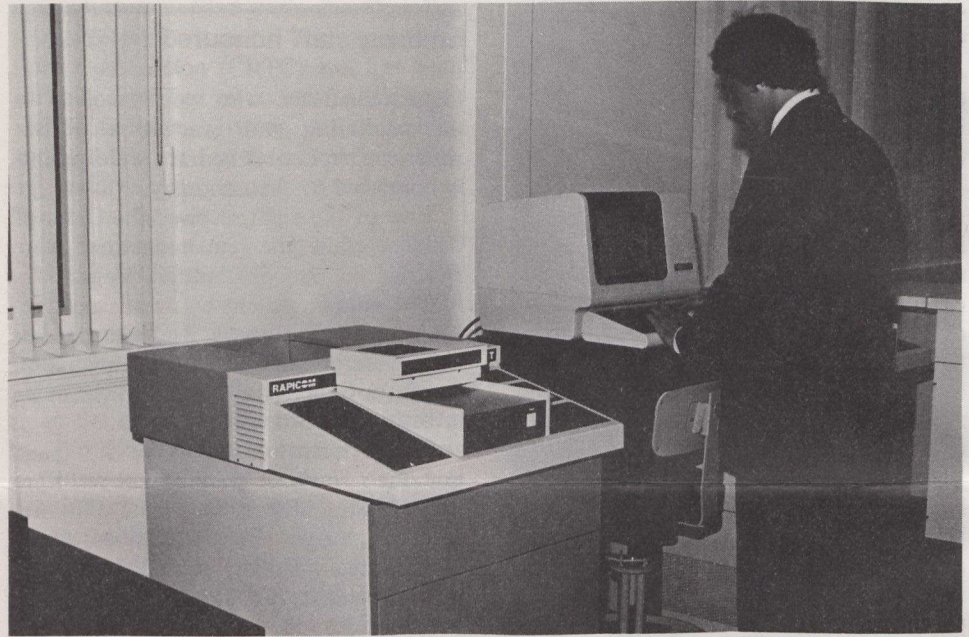


Canada/Britain instant mail

Canada Post and Teleglobe Canada recently introduced a new communications service that can transmit mail by satellite within minutes between Toronto and London, England. It is the first electronic mail service of its kind to be inaugurated on an international basis.

At a basic cost of \$5 a page, the service called INTELPOST, allows businesses such as banks, stock brokers, and importers and exporters, to send facsimiles of letters, photographs, drawings and charts to their correspondents in England.

At an INTELPOST centre in Toronto, the customer's original document — written or graphic material — is passed through a high resolution scanner that converts this information into digital electronic signals. This information is then transmitted by CNCP Telecommunications' domestic facilities to Teleglobe Canada's international gateway switch in Toronto for transmission by satellite to a receiving station in England. In London, a high quality facsimile of the original is produced and inserted into an INTELPOST envelope for pick-up at the INTELPOST centre by the addressee or for delivery through Britain's Express Post service. Messages originating in Britain arrive at Toronto's INTELPOST centre where they may be picked up at the counter or deli-



The clerk types in the correct does on the computer keyboard for transmission of INTELPOST message to London, England.

vered by First Class mail or Special Delivery.

INTELPOST handles almost any communication that is printed, typed, handwritten, drawn or photocopied onto a sheet of paper no smaller than five inches by five inches (127mm x 127mm) and no larger than eight-and-a-half inches by 14 inches (216mm x 356mm). This material is scanned by a facsimile reader that con-

verts the text or graphic information on the original document into digital electrical signals.

Access to the *Intelsat* satellite, used in transmission, is provided by Teleglobe's Laurentides earth station in Weir, Quebec. Inaugurated in September 1979, this facility is the first Canadian earth station for international communication to be located inland.

Federal health department studies effects of acid rain

Health and Welfare Canada has launched several studies into the potential health hazards resulting from acid rain and the pollution causing it.

Peter Toft of the department's chemical hazards bureau said that researchers are studying the effects of the pollutants responsible for acid rain, which is killing off certain fish populations and is threatening croplands in eastern North America.

Toxic metals in drinking water

Mr. Toft says scientists are also examining possible changes in drinking water as certain toxic metals may be leached from the soil into water because of the acidic precipitation.

"Acidic water passing through metal pipes could also lead to the corrosion of these pipes," he said.

The Department is monitoring the levels of certain pollutants from federal

environment stations across the country and has sponsored research projects at two Ontario universities.

In certain circumstances high levels of air pollution have been known to cause severe health problems, particularly among people suffering from respiratory diseases such as asthma, he said.

However, scientists want to know how the body copes with continuous exposure to low levels of the toxic substances in the air, particular sulphur dioxide, nitrogen oxides and related compounds. These combine and undergo chemical changes in the atmosphere, creating acid rain.

The pollutants are mainly a result of the combustion process, from coal-fired plants both in the United States and Canada as well as fuel exhaust from cars and trucks.

Researchers at the hospital at Queen's University in Kingston, Ontario are ex-

amining certain organs and the fat of cadavers for 14 chemical compounds found specifically around the Great Lakes. These chemicals include DDT and Mirex, two pesticides banned in the 1970s because of their insolubility, and the toxic pollutant polychlorinated biphenyls.

By the end of next year researchers hope to have data on 100 cadavers where death was caused by natural causes or in car accidents.

Monitoring respiratory health

Scientists at McMaster University in Hamilton began work in 1978 monitoring the respiratory health of 3,000 school children who would be exposed to air pollution from two sources: nearby smelters located in the steel-producing city and contaminants that drift hundreds of miles from their source.

University of Toronto scientists are investigating the impact of air pollution on asthma patients.