Volume 12, No. 12
March 21, 1984

Newsprint output rises

Canadian newsprint production continued its recovery in January, as shipments to the United States, Canada's largest newsprint market, grew by 16.4 per cent from 1983 levels.

The Canadian Pulp and Paper Association said output by the country's newsprint mills was 757 000 tonnes, up 10.5 per cent from 685 000 tonnes a year earlier and 12.5 per cent higher than the 673 000 tonnes produced in December.

Canadian mills operated at 93 per cent of capacity in January, compared with 85 per cent in December.

Second Canadian arm for the US space shuttle

Spar Aerospace Ltd. of Toronto is completing a design study of a shorter, simpler version of the remote manipulator Canadarm for use on the US space shuttle, reports Lydia Dotto in *The Globe and Mail.*

The device, known as the Handling and Positioning Aid (HPA), is designed to be used, along with the existing remote manipulator system (RMS), for serving and repairing satellites and other space systems and, in future, for space construction projects.

The HPA will be about seven metres long and will have shoulder and wrist joints and a computer control system similar to those on the RMS; however, it will lack the RMS elbow joint and will have only two instead of three degrees of freedom of movement in the wrist.

It is designed to fit along the starboard side of the space shuttle's cargo hold, with the RMS on the port side.

The HPA, which has the same "end effector" (grappling device) as the RMS, will hold payloads firmly in position and tilt or rotate them, providing better access for inspection and repair or replacement of components, either by the RMS or by astronauts working outside the shuttle.

The HPA project is just one element in Spar's continuing study of the ways in which advanced RMS technology might be used in the future, not only on the shuttle, but on other space transportation systems and the permanent space station now being planned by the US National Aeronautics and Space Administration (NASA).

If approval is given this spring, a flight system could be delivered by early 1986, said Brian Fuller, Spar's marketing manager for space RMS systems.

Funding for the project was provided as part of the original agreement between Canada and the United States, under which the Canadian government, through the National Research Council, paid about $110 million for development of the first RMS, the Canadarm.

This system consists of two manipulators each. But, to date, NASA has purchased only three full RMS systems under a $74-million contract with Spar. As a result, some of this "shortfall" money was earmarked for the HPA design study. An earlier NASA study termed the HAP concept an important new system for the shuttle.

There are various ways in which the HPA could be used. For example, the RMS could be used to grapple a malfunctioning satellite and transfer it to the HPA to hold, while repairs are made or components are replaced.

These tasks might be done remotely by the RMS, controlled by astronauts inside the shuttle. Or the astronauts might go outside to do the work, using either the free-flying manned manoeuvring unit backpack (MMU) or the manipulator foot restraint (MFR), both of which were first tested on the last shuttle flight.

Five-country international teleconference symposium

Eric McLuhan

Eric McLuhan, communications consultant and professor, will be the keynote speaker at the world's first International Teleconference Symposium (ITS '84) which is being held at the Hilton Harbour Castle Hotel in Toronto on April 3, 4 and 5, 1984. Eric McLuhan, the son of Marshall McLuhan, the late Canadian media philosopher and literary scholar, will speak on "Teleconference Culture and the Global Corporate Village".

Other speakers participating in the conference include Jean-Claude Delorme, president and chief executive officer of Teleglobe Canada, who will address the five-site live world teleconference session, and well-known Canadian humorist David Broadfoot, who will address delegates at the dinner.

ITS '84 is the first user-oriented symposium to focus on the applications and benefits of teleconferencing. Hosted in Canada by Teleglobe Canada, the symposium will be conducted concurrently at five international sites: Sydney, Australia; Tokyo, Japan; London, England; Philadelphia, USA; and Toronto, Canada. The symposium will feature daily live fully-interactive teleconferenced sessions linking the various sites *via* the Intelsat satellite system.

ITS '84 will allow actual and potential business users of teleconferencing to evaluate the latest developments in teleconferencing services, equipment and networks in Canada and world-wide. Presentations by the industry's leading experts will include "Teleconferencing Benefits – Cost Savings and Applications" and "The Impact of Teleconferencing on Corporate Communications". The symposium will also feature exhibits and demonstrations of the latest equipment and services by leading manufacturers.