An overview of new telecommunications

by Bruce Attfield

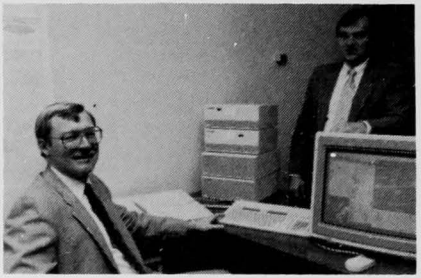
AES is now completing work on its replacement of the telecommunication network that supports the Weather Services Program. This development represents the most complex technological project ever tackled by AES.

In 1980, study of the aging telecommunications network concluded that expansion to keep up with the ever-growing demand for more weather information was not possible. The system had served AES very well for 25 years or so and data availability and quality were still increasing, but the system could no longer cope and a change was essential.

In 1982, Treasury Board approved a project designed to make use of cost-effective public packet telecommunications plus Canadian telecommunications satellites for pictorial information transmission.

The safety and security of Canadians was the first consideration without regard to cost or concern for their geographical location. The system would be no more expensive than the old one and would provide a flexible, cost effective growth path for future requirements.

Despite some interim setbacks during six years of planning and installation, the system is now ready. Credit must go to the staff of the Planning and Development Division of AES's Computing and Telecommunications Services Branch under Mitch Kallaur as well as to many



Project leader John Schneider (left) smiles now that most of the initial planning phase of MPDS has been completed. Director of Computers and Communications Bruce Attfield looks on.

others across AES, and to private sector consulting firms.

AES's Operational Systems Division (OSD) has taken operating responsibility for the new network, though actual system turn-on will occur gradually over the next few months. A new National Computer Communications System (NCCS) will be completed this summer with new terminal equipment reaching all AES sites. The NCCS completes the first half of the new system objective.

The second half provides the broadcast capability. The Meteorological Satellite Information System (METSIS) is also nearing completion and is presently broadcasting duplicates of the information disseminated by the old system. All AES weather offices now have the capability of receiving data via Canada's ANIK satellites.

The newly converted offices will continue to receive pictures on paper facsimile like they do today. However, the true benefit of the delivery system will be felt as AES installs its display equipment this summer. The Multi-Purpose Display System (MPDS) has been designed by AES and employs modern workstation computer equipment and Canadian developed software. Those who have seen it say it is very advanced and compares most favorably with other systems used by weather services around the world. MPDS is the key to full use of AES's new METSIS system and its operation is described more fully in the accompanying Zephyr articles.

As a measure of success it is worth noting that not only does the new system deliver more and better quality information in shorter time-frames, it uses less resources than the old system. The new system operates for fewer 1988 dollars than the old system did in 1981 dollars.

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