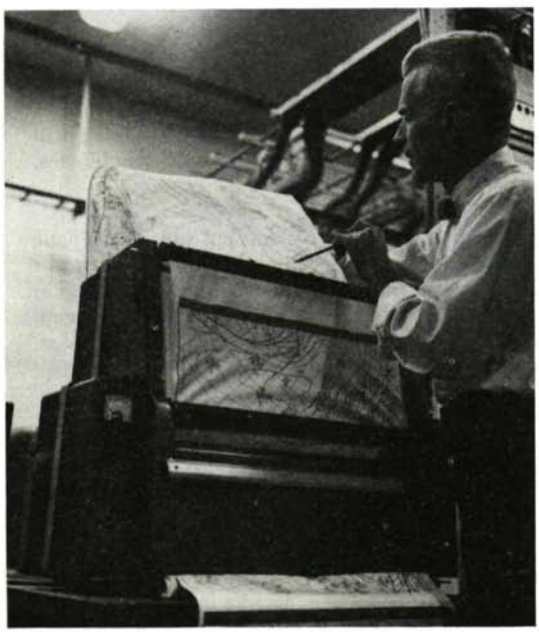
Master control board of the computer-controlled transmission system at CNT's Data Central, Toronto, the present major function of which is the handling of airline and railway reservations. The network is also used by the Meteorological Branch of the Department of Transport to transmit weather maps across the country for instant weather information.



Computer-Controlled Transmission Systems.—CN Telecommunications operates the only computer-controlled system in Canada, although The Bell Telephone Company of Canada is planning to install such systems. CNT's Data Central in Toronto was inaugurated in 1964. It controls and transmits information for the reservations systems for Air Canada, Canadian Pacific Air Lines and Canadian National Railways. When an airline customer wishes to make reservations, a computer card is inserted into a card reader. Within three seconds the card will pop up with the reservations or, if there is no space on a particular flight, give alternate flight routes. The operation of the CNR reservation system is basically similar. CNT Data Central also handles Air Canada's 'Notice to Airmen' (NOTAM) project where particular flight plans, runway conditions and navigational aids are stored in Air Canada's computer and given out to pilots across the country when a special code is dialed on teletype machines.

A third-generation computer installed at the Data Central in early 1967 is performing major 'store and forward' message switching functions for the Meteorological Branch of the Department of Transport. Once the computer finds a weather report from any one of the 171 DOT weather stations across the country, it tells the station equipment to transmit the report to Data Central and then determines where and at what time of the day the information is to be sent.

Satellite Communications.—Increasing activity in the Canadian Arctic and sub-Arctic, where communities are being expanded and new ones formed, has prompted the telecommunications industry to consider a domestic satellite system that would suit the communications needs of the North as well as those of the other parts of Canada and for some time this subject has been under intensive study by