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#### **Summaries**

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# Telephone Set for Speech Transmission over Rented Data Communication Lines

H. P. Lutz and J.-J. Jaquier, Berne

The article describes a new telephone set designed for speech transmission over rented data communication lines. The instrument is equipped with a data control switch and dialling facilities for calls over the public network.

p. 11...14

# The Data Processing System of the Research and Development Division

A. Burgherr, Berne

In July 1972 a data processing system was made available to the staff members of the Research and Development Division. Thanks to the wide range of possibilities it offers, the system is well adapted to the Division's equally wide range of needs. Leading features of the system are its modular layout and the principle of teleprocessing in connection with a large-capacity computer of the Electronic Computing Centre of PTT.

p. 15...18

# Present State of the Studies Concerning New Switching Systems

A. Bonjour, Berne

Although today by far the greater part of telephone exchanges in Switzerland are of electromechanical type, some semi-electronic exchanges have already been installed, and the first prototypes of fully electronic exchanges will make their appearance in the near future. There is no doubt that electronics will eventually dominate the scene of telecommunications.

p. 19...25

### New Possibilities for Communication Systems on the Basis of the Laser Glass Fibre Conductor

H. Ohnsorge, Ulm/Donau

The invention of the laser has made optical communication possible. With a view to eliminating atmospheric interferences, light transmission over glass fibre waveguides is being studied. In this article, the author outlines the possible uses of laser glass fibre channels in both long-distance and local networks, commenting also on the prospect of setting up integrated systems.

p. 26...27

## Components of Glass Fibre Communication Systems

S. Maslowski, Ulm/Donau

The author outlines the present state in the development of components for a laser glass fibre communication system. Mesa diodes with extremely high cut-off frequencies are used as optical-electrical transducers. The waveguides consist of monomod fibres of 1...3  $\mu m$  core diameter. The laser, whose useful life is still insufficient, presents the greatest problems.

#### **News Items**

#### **Posts**

Ticket sales and accounts are being rationalized in the medium-sized Swiss postal travel offices. In 1973, ticket issuing machines will be installed in 80 offices.

### Telephone

Subscriber's numbers in the Zurich network group (01) are being converted from 6 to 7 digits. An initial changeover of 41,300 connections in 6 exchanges was effected on 15 and 16 November.

The Lausanne-St. François inquiry office has been equipped with 28 microfilm reader positions.

On 21 November a **new international manual exchange** was put into operation at **Berne**. It is equipped with 48 switchboard, 1 conference, 4 charges, 8 ticket and 4 supervisor's positions.

In July and August international calls from Switzerland amounted to 32.6 million chargeable minutes, 25.3 million or 77.4% being dialled direct by the subscribers. The increase in ISD calls was 3% over May/June 1972, and 9% over 1971

### Telegraph, Telex

The telegraph primary offices are compiling statistics on telegrams in German, French, Italian and English accepted by phonogram operators. The data is to show whether separate positions can be provided for each of these languages.

On 1 December gentex service with Zaire was opened via Brussels. At present, telegrams are exchanged with the Kinshasa office only.

On 20 November telex service with the People's Republic of China was opened via the Berne-Peking radio link. So far, only 4 Chinese subscribers have been admitted.

#### Radio, Television

An additional 4 local VHF radio broadcasting stations, 2 for the German-spoken and 1 each for the French and Italian-spoken Swiss programmes, were placed in operation on 1 December.

On 9 November a Heliswiss helicopter flying men and equipment to a passive relay construction site in the Lower Engadin (Grisons) crashed, killing the pilot and two PTT technicians.

TV transposers for the French and Italian-spoken Swiss programmes have been added at the Glarus transmitting station.

The switching centre and production control at the new Zurich-Seebach TV studio came into operation on 14 November.

Representatives of the German Federal Post Office and the Swiss PTT have discussed the installation, on Swiss territory, of 3 small TV transposers which are to supply the German programmes to 3 German towns along the river Rhine.

During their visit to Switzerland from 2 to 8 November, a group of television engineers from the People's Republic of China were shown the Zurich-Seebach TV studio as well as some of the main transmitter plant. The delegation also called on several Swiss telecomms and electronics firms.

A UHF simplex relay for wireless communication with motor vehicles has been put into operation at the Zurich-Käferberg radio centre of the PTT.

The concrete tower for the aerial of the future Swiss satellite earth station at Leuk (Valais) has been completed.

### Miscellaneous

The first stage in the automation of the Berne PTT pneumatic tube system has been completed. A mechanical exchange at the town centre serves connections at the telegraph office, two post offices, 6 banks, the journalists' room in Parliament building, as well as the new telephone and telegraph counter at the main railway station.

Heavy rainfall from 20 to 23 November caused breakdowns in postal and telecommunication services in several parts of Switzerland, among them Lucerne, Aargau and adjoining Berne regions.