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Summaries

p. 78...84

Videoconference

P. Klieber, Zurich

Videoconference is an example of better utilization of the existing telecommunication means and terminals. It allows to see not only the partner at the other end of the wire, as with the videophone, but joins also several persons at two remote conference rooms. Thus, the physical absence of the partner does no more play any role in a closed-circuit conference. The author justifies the introduction of new communications means and describes the technical equipment of the PTT's public videoconference room in Geneva. The portable videoconferencing equipment is also discussed. Finally, the initial operating experience is outlined.

p. 85...91

Innovation in telecommunication industry

H. Guggisberg, Bern

All electronic switching equipment shows electric power consumption characteristics which have consequences on the power supply design as well as on the removal of the dissipated heat. This affects mainly the reliability of telecommunication operation. For the power supply equipment, the principle of series regulation with transducers and thyristors is no more used. Instead, clocked, higher frequency rectifier equipment, so-called switching regulator, is used. The article describes briefly the advantages and limitations of this technical innovation.

p. 92...102

Second generation data transmission equipment in digital basis network

J. Hürzeler, Bern

Computer-controlled transmission equipment constitutes the basis of the 2nd generation equipment for the data transmission of bit rates from 2.4 kbit/s to 64 kbit/s. This equipment was connected to the digital basis network in 1987. A large development effort was required for the high integration of software and firmware to this equipment. On the other hand, this allows to save cost and space. Additional remote diagnosis capability was incorporated via separate interfaces.

p. 105...115

The background for electromagnetic screening measurements of cylindrical screens

B. Szentkuti, Berne

A brief sketch of the underlying physical phenomena is followed by the definition of transfer impedance Z_T , through capacitance C_T , normalized through elastance K_T and capacitive coupling impedance Z_F . The coupling equations through a screen

as function of these parameters are given and discussed in detail, introducing the concepts of equivalent transfer impedance Z_{TE} , cut-off frequency f_c and cut-off cable length l_c . The definition of screening attenuation a_s is critically examined. Z_T , K_T and Z_{TE} are considered as primary quantities, defining clearly the quality of a screen, while a_s should be given as additional information in rated conditions. The author concerns mainly with the correct interpretation of cable screen parameters and of screening test data.

News Items

Telephone

In 1987, a new record was reached with **118 117 net increase of telephone subscriber lines**. 117 702 new lines were installed in 1973, only just over 61 000 two years later in 1975.

The Swiss Federal Railway (SBB) introduces **telephones in trains** on the route of Geneva – Berne – Zurich – St. Gallen – Rorschach at the end of February.

Huge sale took place for old telephone sets that will be taken out of the assortment. The PTT has been offering these sets at special low price since the beginning of 1988.

The **PTT again reduced tariffs for telephone, telex and leased circuits** in European and overseas traffic from the **beginning of March**.

A further base station was installed in the coverage area of **extension phase 1 of Natel C** in the region of Winterthur. Thus, 30 radio cells with 337 speech and 30 traffic channels are available in the greater Zurich area.

Additional satellite circuits were opened over Leuk earth station: **El Salvador** (3), the **USA** (12) via Intelsat and **Spain** (4) via Eutelsat.

Teleinformatics

At the end of December 1987, «arCom 400» (based on CCITT X.400 message handling system) provided a total of 29 **mailboxes for customers** and 123 mailboxes for the PTT.

Data links via Telepac (Swiss packet switching network) are now available with **Brasil** (Rempac network), **Yugoslavia** and **Antigua**. Three **satellite data circuits** of 64, 128 and 768 kbit/s rates were connected via Zurich earth station and **Intel-sat to the USA** in January.

Radio, Television

A total of **17 new VHF/FM transmitters** were taken into operation on 15 sites in January. Most of these transmitters are serving the third programme of the Swiss Broadcasting Corporation.

Due to lack of snow, the **international skiing competitions were relocated at short notice**. This forced the PTT to fastenure the transmission of radio and TV programmes from the newly chosen place of events (Zinal, Saas Fee, Leukerbad). For the first time, a mobile earth station was used to this purpose.

The first **digital links**, each with 140 Mbit/s, were put into operation on the new **Alpine-quadrangle radio relay network**: Lucerne-Tessin (Arbedo), Lucerne-Valais (Savièse) and Lucerne-Graubünden (Chur). The last new analogue 2700 channels radio link came into service between Zurich and Lugano.

Miscellaneous

The General Directors of the CEPT (European Conference of Postal and Telecommunications Administrations) decided to **form a European Telecommunications Standards Institute (ETSI)**. The institute will be located at Sophia Antipolis (Nice). The institute will take over all standardization work so far done by the CEPT. It will be open to all telecommunication administrations, network operators, manufacturers, users, and training and research institutions. It will also closely cooperate with other existing standardization organizations.

The **first transatlantic fibre-optic telephone cable TAT-8** will be probably taken into operation in autumn. Replacement of certain components is necessary due to uncertainty concerning their life expectancy. This will delay the commencement of operation by at least two months.