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## Summaries

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### Subjective Tests of Speech Transmission Performance

A. Kündig, Berne

Having surveyed customer-oriented subjective testing of speech transmission performance, the author describes two particular methods, viz. comparison by pairs and rhyming tests. He proposes a procedure for ascertaining the reliability of test persons and reports on practical results. A list of German words for rhyming tests is included.

p. 242...247

### Antenna Covers of Polyurethan Hard Foam

P. Hügli, Berne

The radio link antennas have a great impact on the reliability of microwave links. The influence of wind, snow and ice can degrade the quality of the transmission considerably. For weather protection constructions, polyurethan hard foam is an excellent material. Attenuation and reflection measurements in the frequency range  $\leq 12$  GHz have shown that this material is useable as a good window for electromagnetic waves.

p. 248...255

### The EBX 1/2 Electronic Branch Telephone Exchange

M. Schmid, Berne

In replacement of conventional equipment, Autophon Ltd has designed a small electronic PBX for 1 exchange line and 2 extensions. It is the first Swiss telephone exchange using exclusively electronic components for speech wire through-connection and control functions. In this article the main technical and operational characteristics are described.

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### Equipment for Telephone Traffic Analyses

J.-F. Savoy, Berne

The author explains the reasons that have led to the development of such equipment. He describes the design and functions of a destination recorder and shows how the recorded data is computer processed by means of programming tapes punched separately for each individual case.

p. 262...265

### Application of Microplasma Welding in Thermionics

Brown Boveri Company, Baden

The inner parts of a thermionic valve can either be assembled mechanically by screwing, riveting and beading, or they are joined by soldering, welding or braze welding. Most valve parts are made of high-temperature metals such as tungsten, molybdenum and tantalum, but iron, nickel and their alloys are also used. For these materials special welding techniques are required, such as electron beam welding or the microplasma method described in the present article.

## News Items

### Posts

At the 'IBRA 73' international stamp exhibition in Munich, the Berne PTT Museum will be showing a special collection on **Switzerland as a postal transit country in the past and present.**

In addition to Salary-through-Giro accounts, Swiss PTT is now offering a **Salary-through-Giro cheque service** enabling business and industry to make **cashless payments also to those employees holding no Giro account.** The new cheque, which can be cashed at any Swiss post office within 30 days, has been introduced in response to customers' rationalization and automation efforts.

### Telephone

At the end of March, **Japan** introduced **ISD to Switzerland** and various other European countries.

**Telephone circuits between Switzerland and the USA** have been increased by 5, bringing the total to 72 satellite and 31 cable circuits. Of these, 9 and 15 respectively are routed via the Frankfurt/Main-New York pool.

**Two Zurich-Cairo voice circuits** have been opened over the Catanzaro-Alexandria cable to replace the Berne-Cairo shortwave radiotelephone link.

A **third satellite circuit** for telephone service with Iran has been opened between **Berne and Tehran.**

### Telegraph, Telex

In April, **phototelegram service** to the **Republic of South Korea** was opened via Frankfurt/Main. At present, Switzerland maintains this little-used service with 21 European and 20 overseas countries.

In May the Press were shown **Switzerland's first mobile telegraph office** before it went into operation at the 'Tour de Romandie' cycling event. The office is equipped with 8 teleprinter positions, 2 attended telephones and 3 phototelegraph connections.

Biel/Bienne is the **first Swiss telex exchange** to have been equipped with an extension capable of accommodating **6-digit subscriber numbers.**

Since April, Swiss telex operators have been able to address **enquiries on subscribers in the German Federal Republic** direct to the Darmstadt automatic information system.

## Radio, Television

In 1972, **517,488 radios and 226,668 television sets** were sold in Switzerland. The increase on the preceding year was 53,200 and 32,400 respectively.

In April, Switzerland's **TV transmitter chains 2 and 3** were extended by **7 transposers in 5 different locations.**

A **shortwave radiotelephone link** was opened between **Berne and Monrovia** in April.

In April the '**Basle Radio**' land station was equipped with **selective calling facilities for public radiophone service to ships on the river Rhine.** This is in accordance with the 1970 Brussels agreement on Rhine radio communication.

## Miscellaneous

A small parabolic reflector has been installed on the roof of the Berne PTT Research and Development building at a 30° elevation angle against the sky. Connected to a sensitive 11-GHz receiver, the reflector is used for **thermal radiation measurements** providing data on the suitability of the 11-GHz band for **satellite communication.** The installation is the property of ESRO, the European Space Research Organization, which has placed equipment of the same type in Sweden, Germany and Italy.

At the **World Administrative Conference for Telegraphy and Telephony**, held in Geneva at the beginning of April, the telephone and telegraph regulations dating from 1958 were adapted to the present-day needs of worldwide communication. The conference was chaired by Mr F. Locher, Director General of Swiss PTT.

At a meeting in The Hague the CEPT sub-working group R 25 has been discussing a **standardized automatic radiophone system** using meter waves for **public calls between coast and ship stations.**

**Problems of protecting radio and TV reception** have been discussed by UER working party P at a meeting in Brussels.