Summaries and notices

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Project of the Road Tunnel and Its Execution

A. Schatzmann, Göschenen

After briefly outlining the project of the Gotthard road tunnel the author goes on to describe some of the special aspects of the construction work. He then treats questions and problems that had to be solved during project execution.

p. 444...448

Safely through the Gotthard Road Tunnel

W.-G. Peissard, Männedorf

After a few basic thoughts on the necessity of safety measures in the Gotthard road tunnel the author describes briefly the equipment for traffic supervision and control. Illumination and ventilation are mentioned as well as the fire control system. Finally the article provides a few data on the control rooms and the new technology employed.

p. 449...457

Laying out the Coaxial Cable Link in the Gotthard Tunnel

F. Rohrer, Berne

The construction of the 16.3 km long Gotthard road tunnel provided the PTT with an opportunity to traverse the Alpine chain with a new appropriate telephone coaxial cable link to meet the latest demand for transmission and circuit as well as to considerably strengthen the performance of the north-south link. A 2.6/9.5 mm coaxial cable for 60 MHz system was selected. The amplifiers and the cable sections had to be adjusted to a distance of 750 to 815 m between the clearways of the tunnel. The article describes the technical features and the organizational problems with which the technical staff had to cope. The tedious work «below ground» and the heavy, dusty air due to constant construction work were the cause of special annoyance.

p. 458...465

Coaxial Cable Installation

E. Coèndet, Berne

The construction of the Gotthard road tunnel provided an opportunity to install at an earlier stage an important part of an efficient coaxial cable link for the telecommunications network between Zurich and Lugano. This 12-tube 2.6/9.5 mm coaxial cable in the above completed road tunnel section replaces the 4-tube cable of the north-south link which went out-of-operation due to alterations in the railway tunnel. The special conditions of installation and the required solutions are described. The paper discusses further the new type of coaxial cable with corrugated aluminium sheathing and the modern splicing technique for wideband system ($\geq$60 MHz) as well as the extensive measurements requiring limited margins for such links.

p. 466...480

Tunnel Radio Communications Service

H.-R. Meyer, Solothurn

The article describes the design and the initial operation of the longest tunnel radio communications service which has been realized in the Gotthard road tunnel. The technical plan drawn up by the research and development division of the Swiss PTT was utilized. Problems are mentioned which can occur with 24 broadband amplifiers connected in series.

News Items

Telephone

Additional permanent **satellite circuits** between **Lagos and Zurich** (3) as well as between **Pittsburgh and Zurich** (12) via Leuk earth station were opened in October.

The PTT acquired the irrevocable right to use **24 telephone circuits** each in the underseas cable links of **Catanzaro—Alexandria** (Italy—Egypt) and of **Columbus/Pencan-3** (Venezuela—Spain).

Satellite circuits to the **USA** increased by 48 to 262 in October.

Miscellaneous

The **cable manufacturing plan for 1981** foresees 320 000 wire-pair km of local line, 39 000 wire-pair km of spare and around 87 000 wire-pair km of polyethylene cellulose cable.

The **intercontinental telephone exchange III/3 Zurich-Herdern** was opened in October. This is the first time a modern long-distance dialling system of the Siemens-Albis Co ESK-A64S came into operation.

The Federal Department approved the objection to land expropriation for construction of a **new short wave curtain array antenna at Schwarzenburg.** Now a new project shall be planned with grid-support towers instead of the foreseen concrete towers. This will obviously delay by several years the replacement of the present facility for the worldwide radio broadcast service of the Swiss Radio International.

Separate **bilateral discussions** on future traffic and circuit developments took place between the Swiss PTT and the **British Telecom International** as well as the **Yugoslavian PTT.** New direct circuits with Yugoslavia will be completed within a few years.