

Digital Computers and Information Processing" held in Darmstadt in October, 1955 was predominantly due to his initiative. From that date (1955) Professor *Walther* was also an editor for the NTZ. In 1962 he successfully endeavoured to attract the IFIP Congress to Munich and then acted as President of the Congress after having held the office of Vice-President of the International Federation of Information Processing (IFIP) since 1959. — On the occasion of his 65th birthday on 6th May 1963 he received a highly esteemed honour, when the Dresden University Institute of Technology, where he had studied and graduated, conferred on him the degree of Doctor of Natural Sciences honoris causa (Dr. rer. nat. h. c.).

### Rudolf Hell 65 years old

Dr.-Ing. *Rudolf Hell*, founder of the firm of Hell in Kiel, celebrated his 65th birthday on 19th December 1966. *Rudolf Hell* studied at the Munich Institute of Technology and during the years 1923 to 1929 was assistant to Professor *Dieckmann*. In 1927 he graduated with a paper on radio direction finding for air navigation. Already in 1925 came his first invention of the picture-scanning tube for television, which was brought to fruition only years later. In 1929 he founded his own firm in Berlin-Babelsberg and invented the *Hell* telex printer, which considerably changed the communication service of the press. After the second world war owing to the loss of his Berlin firm he faced a new beginning. In 1950 his rapidly growing new concern, which to-day has nearly 2000 employees, took up the development of facsimile equipments for the press and the picture telegraphy service of the Post Office.

In 1951 began the development of electronic engraving equipments for the printing industry. For the weather service *Rudolf Hell* developed facsimile equipments, with which plotted weather charts are transmitted over wires and radio links. With *HELL Pressfax* equipments whole pages of newspapers can be transmitted by radio. In the equipments known as *Colorgraph* and *Chromagraph* he gave the printing industry machines for the rational and exact production of colour separations for all normal printing processes. Only last year the development of the high-speed *DIGISET* filmsetting apparatus provided a completely new method for the computer-controlled rapid composing machine. Dr. *Hell*, who in his leisure hours is an enthusiastic yachtsman, attained his 65th birthday with unimpeded creative powers.

## Informations

### Merging of cable factories

The *Kabel- und Metallwerke Gutehoffnungshütte Aktienverein*, Oberhausen announces that the firms of *Hackethal-Draht- und Kabel-Werke AG*, Hannover, *Osnabrücker Kupfer- und Drahtwerke*, Osnabrück and *Kabel- und Metallwerke Neumeyer*, Nürnberg, together with *Elmore's Metallgesellschaft*, Schladern have effected a merger. The name of the new company is *Kabel- und Metallwerke Gutehoffnungshütte Aktiengesellschaft*, 271 Vahrenwalder Straße, 3 Hanover.

The new undertaking has taken over all the rights and obligations of the factories mentioned above. The 4 concerns will continue to conduct their own special production programmes.

### Satellite facsimile receiving system for Sweden

The Royal Aviation Administration of Stockholm has acquired an equipment for picture reception from weather satellites, which was manufactured by *Rohde & Schwarz*. Based on the started Tiros Operations System the station operates entirely automatically with the new "Hell Automatic Telepicture Receiver". On the appearance of a suitable satellite the equipment switches itself on. In conformity with the known orbit a punched-tape equipment controls the antenna rotation biaxially.

### Remotely controlled receiving station for the Kigali Relay Station

For the Kigali relay station in Central Africa belonging to the Deutsche Welle (German Wave), Cologne, *Rohde & Schwarz* have supplied the remotely controlled receiving station consisting of an antenna distribution switch, four single-sideband receivers and one telegraph receiver with diversity antennas. A remote-control set enables the installation to be operated and supervised over a distance of 15 km.

### New International Telephone Switching Center in Düsseldorf

On November 24, 1966, the number of countries to which subscribers in the Federal Republic of Germany can dial calls in-

creased to nine. On this day, a new international telephone switching center was cut over in Düsseldorf. After Austria, Italy, Switzerland, France, Luxemburg, Belgium, the Netherlands and England, Norway has now also been included in the countries that can be reached by direct distance dialing. The West German telephone subscribers are at present conducting a total of about 25 million international calls per year, of which as much as 30 percent originate in the Düsseldorf tertiary-center area. If these calls were to be handled manually, Düsseldorf alone would require 400 operators.

The Düsseldorf tertiary center is now a full-scale international switching center capable of handling transit traffic (Fig. 1). It took *Siemens* no more than a year to install the technical equipment on the top floor of a new building. Total cost of material and installation amounted to DM 4.5 million. The Düsseldorf international switching center uses the International DDD System 64 which already operates in the Frankfurt, Hamburg, Munich, and Stuttgart switching centers. In Düsseldorf, the standard 64 system was modified in that it uses, for the first time, a new four-stage ESK route selection network controlled by an electronic translator and marker. This novel international switching system is geared to cope with the exceptional volume of traffic that has to be handled in the Düsseldorf tertiary-center area. Its most important component is the high-speed relay with noble metal contacts (ESK).

The international route selection network 66 used in Düsseldorf is a four-stage, symmetrical ESK-relay switching network operating on the conjugate-selection principle. In view of the capacity of the Düsseldorf international switching center, its trunking arrangement and centralized control was dimensioned to serve exchange groups with up to 1,000 inlets and 4,000 outlets. The mesh-type arrangement of the links enables each outlet of the switching network to be reached over 16 different paths, thus providing for almost full availability and hence more efficient utilization of the outgoing long-distance trunks. Since any trunk can be switched through to any outlet, it was possible to do without any grading. Control of the network by the centralized translator and marker (Fig. 2), both of which are modularized and predominantly equipped with electronic components on printed circuit boards, is fully electronic. The translator/marker is practically a special type of computer which uses the digits dialed by the subscriber to determine, within an extremely short

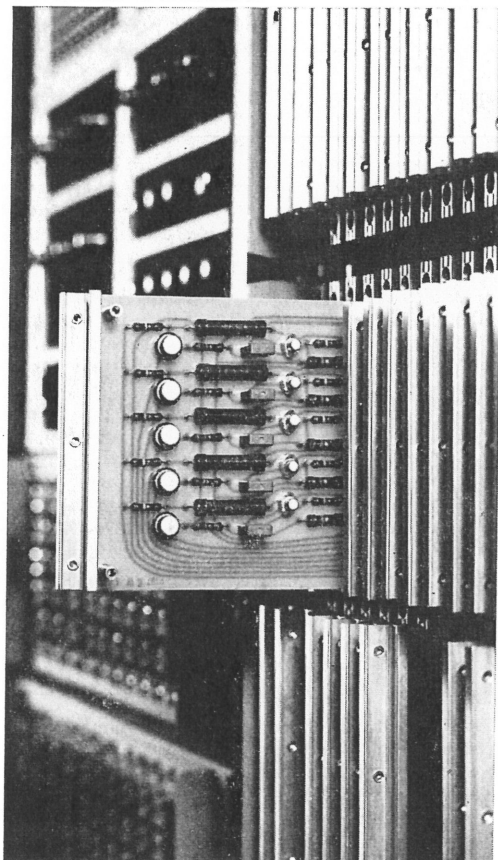


Fig. 1. Inside the new Düsseldorf international switching center