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(ITU) للاتصالات الدولي الاتحاد في والمحفوظات المكتبة قسم أجراه الضوئي بالمسح تصوير نتاج (PDF) الإلكترونية النسخة هذه والمحفوظات المكتبة قسم في المتوفرة الوثائق ضمن أصلية ورقية وثيقة من نقلاً.

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# EUROPEAN VHF/UHF BROADCASTING CONFERENCE

## ITS OPENING AND OBJECTIVES

*From our Correspondent in Stockholm*

On Friday, 26 May, the European VHF/UHF Broadcasting Conference was formally opened in the Hotel Malmen, Stockholm, by Mr. Gösta Skoglund, Swedish Minister of Communications. The Conference, which completed its work on 22 June, was organized by the ITU in collaboration with the Swedish Board of Telecommunications.

Mr. Håkan Sterky, Director-General of the Swedish Board of Telecommunications, was elected Honorary Chairman of the Conference and Mr. Erik Esping, Technical Director in the Board, was elected Chairman.

A similar conference was held, also in Stockholm, in 1952. The object of the 1952 Conference was to establish plans for the rational use in Europe of the frequency channels available for FM sound broadcasting and television stations in the VHF broadcasting bands—a number of bands of frequencies between 41 megacycles and 216 megacycles per second.



Dr. Håkan Sterky, Honorary Chairman of the Conference

Such planning is essential in the very early stages of the introduction of new frequency bands, in order to avoid interference between transmissions.

The 1952 Conference was highly successful in this respect and so far little or no interference has been experienced.

### Increasing demand

The demands of the public continue to increase, however. One factor is the outstanding quality of reception from FM transmissions. Furthermore, whereas a few years ago listeners were reasonably content with a single sound broadcasting or television programme, they now clamour for a variety. To satisfy these demands, broadcasting authorities are obliged to install additional transmitters. There were under 3000 in the 1952 VHF plans; requirements for 6000 new transmitters have now to be fitted into those plans.

Clearly, if the VHF bands were the only resources available, they would soon become overloaded. Fortunately technical development has opened up the possibility of using a further series of channels for television on even higher frequencies in the UHF bands between 470 megacycles per second and 960 megacycles per second. Some European countries are starting to use these channels and there are already 5000 projected transmitters. The time has therefore been reached for plans to be established for the UHF bands, as was done for the VHF in 1952. The problem, however, is somewhat complicated due to the fact that other radio services are also allowed, by international agreement, to use parts of these bands.

### Twofold task

The European VHF/UHF Broadcasting Conference therefore had a twofold task: to review the situation in the VHF bands and to establish plans for the use of the UHF bands. It is hoped that the results of the Conference will ensure satisfactory reception in these bands throughout Europe for at least the next ten years. An enormous task confronted the 200 or so delegates from most of the 41 countries in the European Broadcasting Area,

which spreads from the north of Scandinavia to Morocco and from Iceland to Iraq. The mathematical calculations involved were so complex and voluminous and the time available so limited that it was necessary to seek the aid of an electronic computer. Incidentally, this was probably

the first time in history that a computer was used by an international conference.

Fortunately there existed a spirit of goodwill and international collaboration, characteristic of conferences of the ITU.

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# ADMINISTRATIONS AND OPERATING COMPANIES

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## *SATELLITE COMMUNICATIONS IN USA*

Communication Satellites, Inc., a subsidiary of the American General Electric Co., has applied for authority to establish a communications network making use of satellites. The intention is to place ten satellites equally spaced around the earth in an equatorial orbit and at about 6000 nautical miles from the earth. It is estimated that they will remain in orbit for about 500 years but the useful life of the communications equipment is unlikely to exceed five years.

Each satellite will be about 25 ft in diameter and weigh 600 lb. It will carry a receiver and transmitter fed by solar batteries and so act as a relay station.

The plan is to have 1200 high-quality voice-frequency channels using frequency modulation and one television channel, but it is expected that a further 300 voice-frequency channels of lower quality can be added at a later date. The satellites will not be "stationary" viewed from the earth, but will have a time of orbit of 7.4 hours apparent. The real time will be 6.33 hours.

It is estimated that the cost of each satellite will be \$3.5 million and that the launching will cost \$8 million. The total cost of the project will be about \$250 million.—*Electrical Review*.

## *BROADCASTING IN GHANA*

The Ghana Government has awarded a contract for the design and erection of the broadcasting station at Tema, near Accra, to the Marconi Company on a "turnkey" basis. The company supplied and installed the four 100 kW transmitters and contracted to supply technical maintenance staff for four years.

The West African multichannel VHF system supplied by Marconi's links Tamale (in the north), Palbusi, Salaga, Prang, Abuo, Ejura, Mampong and Kumasi.

The scheme provides aid to Ghana's expanding export market, not only by giving facilities for internal communication, but also by bringing the hinterland into direct

radio contact with the capital cities of the world, via the Cable and Wireless stations on the coast.—*Marconi News*.

## *COLOUR TV IN JAPAN*

During his recent visit to London, Mr. Fumio Iwashita, the president of the Tokyo Shibaura Electric Co., Toshiba, stated that his company plan to be producing 1000 colour TV receivers a month by the end of 1961. They hope to have 100 000 sets in use by the time that the Tokyo Olympic Games begin in 1964.

Japan started regular colour TV transmission last September and there are now eight stations broadcasting in colour for periods varying from 30 minutes to 2 1/2 hours a day according to the station. The colour system used is the NTSC system which is also in operation in the United States. It permits colour transmissions to be picked up in black-and-white on ordinary receivers.—*British Communications and Electronics*.

## *UNITED KINGDOM RADIO TELESCOPE*

The Radio Research Station of the Department of Scientific and Industrial Research is to have a radio telescope built which will have a faster tracking speed than the 250-ft radio telescope at Jodrell Bank. The telescope, which will cost £250 000, with buildings, equipment and site services, is to be built at Crowthorne in Berkshire. It will have a parabolic aerial 80 ft in diameter, and is expected to be in operation by the end of 1963.

This high-accuracy telescope will be used by the DSIR's radio scientists for their work in the space research programme, and to study other aspects of radio science. Its fast tracking speed is necessary for following earth satellites and determining orbital data, and its high accuracy for receiving weak signals from distant space vehicles.

The telescope will also be used to study radio noise from the sun, including sudden increases in radio emission which are related to disruption in short-wave communications, and the radio noise from planets.