## L M Ericsson C.T.C. in Operation North of Arctic Circle



A new C.T.C. installation was completed by the Swedish State Railways in May and officially opened for service on June 1. The C.T.C. office is in Kiruna, from which the signalling system of the more than 80-mile line between Kiruna and the Norwegian frontier is controlled. This is the world's most northerly C.T.C. installation, the whole line running north of the Arctic Circle.

The installation comprises 12 remote-controlled stations, each having three or more tracks. The line is chiefly used for iron ore freights between the Lapland ore fields and the Norwegian port of Narvik, but also carries some passenger traffic. No road communications exist at all. The region is very sparsely populated, and very little passenger traffic occurs at the intermediate stations. For this reason it has been difficult to find personnel to man certain stations. The introduction of the C.T.C. system has made it possible to withdraw all train dispatching personnel from the stations and so reduce the Railways' operating costs. The chief advantage of the C.T.C. installation, however, is the improvement in railroad operation and the consequent increase in the transport capacity of the line.

The signalling and C.T.C. equipment was supplied by L M Ericssons Signalaktiebolag, while the installation work was carried out by the Swedish State Railways. The wiring of the relay bays for the C.T.C. equipment was done at the workshops of L M Ericssons Signalaktiebolag in Stockholm.

## L M Ericsson's 1958 Conference on Maintenance Questions

This year's conference on maintenance of automatic telephone exchanges, the third of its kind, was held at the end of May and beginning of June. On this occasion the administrations invited were those of Latin America, and the majority of our South and Central American customers were represented at the green baize table at Midsommargården, opposite the head factory at Stockholm, around which the discussions took place. The Swedish Telecommunications Administration (Televerket) was also kind enough to send two delegates.

The discussions at the conference were mainly concerned with the economic aspects of maintenance, and with methods and possibilities of reducing the cost and improving the efficiency of maintenance routines in telephone networks in general and at (Above) The C.T.C. office in Kiruna. The C.T.C. controller establishes train routes by operation of a keyset.

(Left) The ore line with the Lapporten pass in the background.

telephone exchanges in particular. In a tour of the Scandinavian countries after the conference the delegates were given the opportunity of seeing how L M Ericsson equipment functions. The trip started in Aland, in the Finnish archipelago, where the small, reliable rural exchanges aroused considerable interest. Thereafter, in Örebro, the delegates saw how a Swedish engineering section at Televerket operates. At Aalborg and Aarhus in Denmark experience was gained of L M Ericsson's city exchange systems of crossbar type operated by the Jutland Telephone Administration. In particular, the new exchange at Aalborg with its advanced maintenance technique attracted considerable attention. The last visit was to the large trunk exchange of the Copenhagen Administration at Borups Allé.

During their time in Stockholm the conference visited plants in the Stockholm Telephone District. In the photo Mr. S. A. Moberg, Sectional Engineer of Televerket, is seen (left) describing the features of the Handen telephone exchange to a group consisting of (from right) Messrs. R. Novakowski, USA, R. C. Sussekind, Brazil, P. Tancred, Brazil, A. Soltero Gonzales, Mexico, H. S. Andersson, L. M. Ericsson, and C. B. Muros, Brazil.

