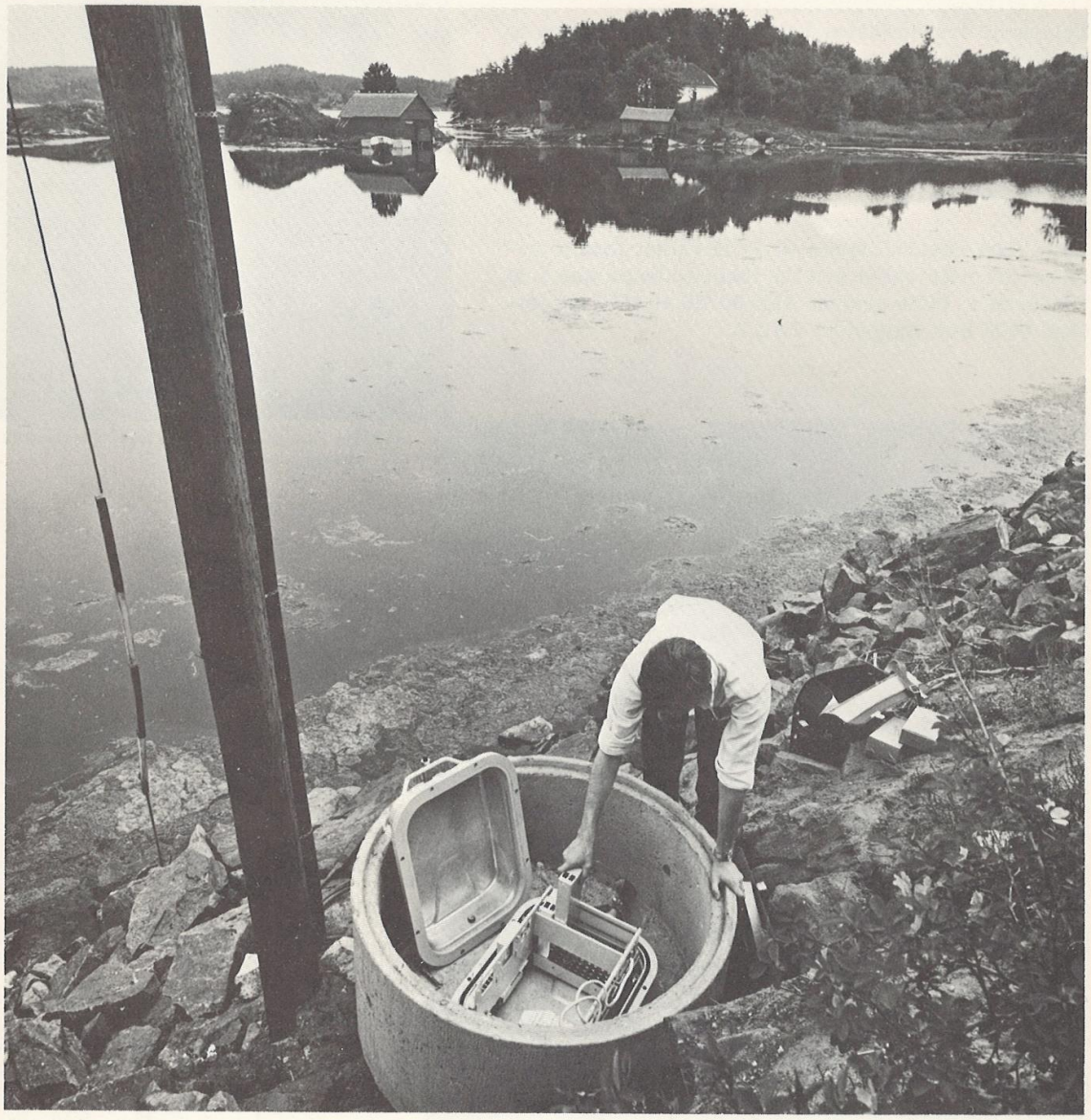
TRANSMISSION NEWS

Ericsson LM

No 1 September 1972





Arendal-Eydehavn A scenic PCM-route

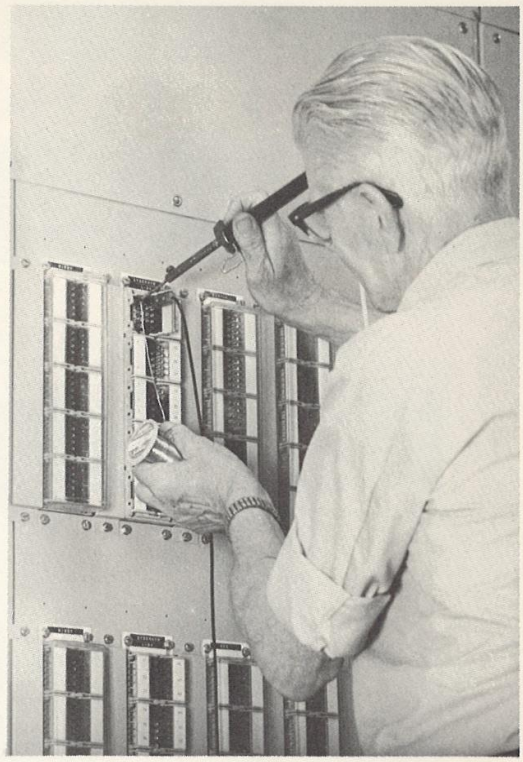
On the south-east coast of Norway, where the river Nidälven joins the sea, lies Arendal – a pleasant boating and holiday resort with a population of 12000.

It is built on seven small islands joined by bridges to the scenic countryside of southern Norway and facing towards an enchanting archipelago.

10 km to the east of Arendal lies Eydehavn, a thriving industrial center named after one of its founders – dr Sam Eyde.

Telephone transmission between these two towns is carried by a pair cable which for part of the way is pole-mounted, thus passing visibly through the Norwegian scenery. Recently the capacity of the pair cable became inadequate and the Norwegian Administration was faced with the need to expand the capacity on this route.

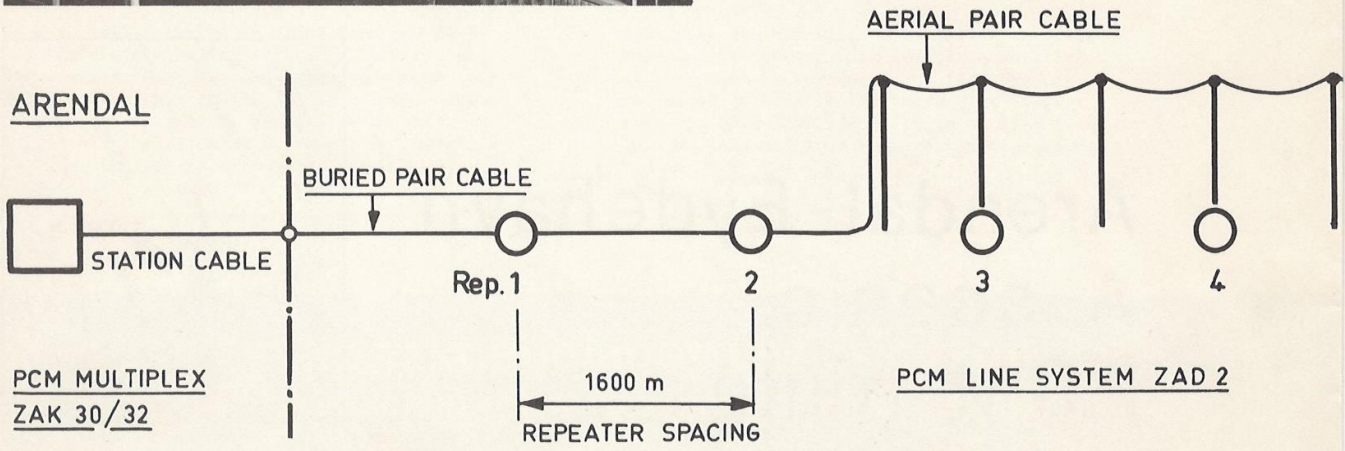
They then decided to install PCM rather than to replace the pair cable and the logical choice was L M Ericsson's PCM-system ZAK 30/32 and the associated PCM line equipment ZAD 2.

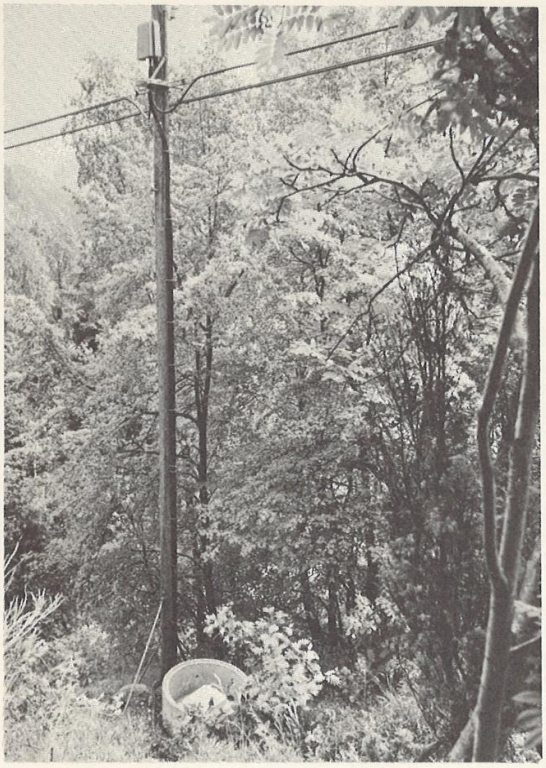


Joining the station cable to the pair cable at the Arendal terminal.

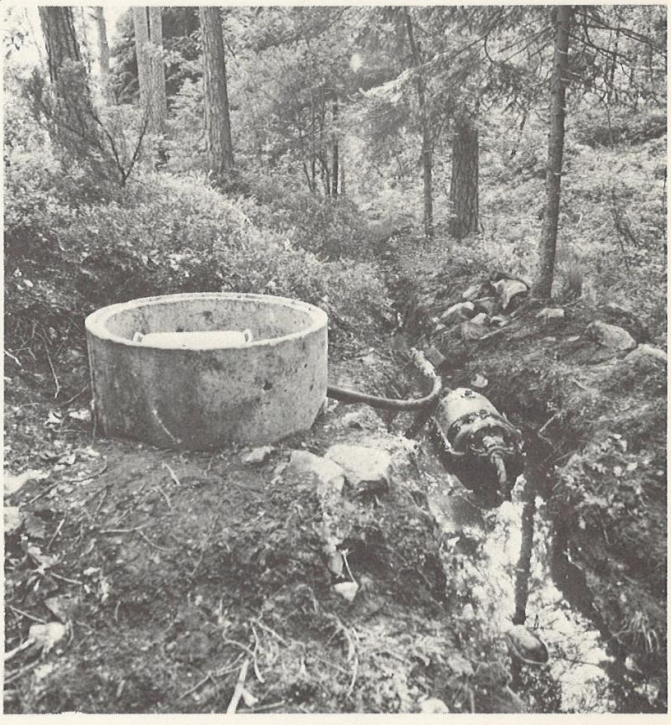


Plugging in the encoder in the multiplex terminal ZAK 30/32.

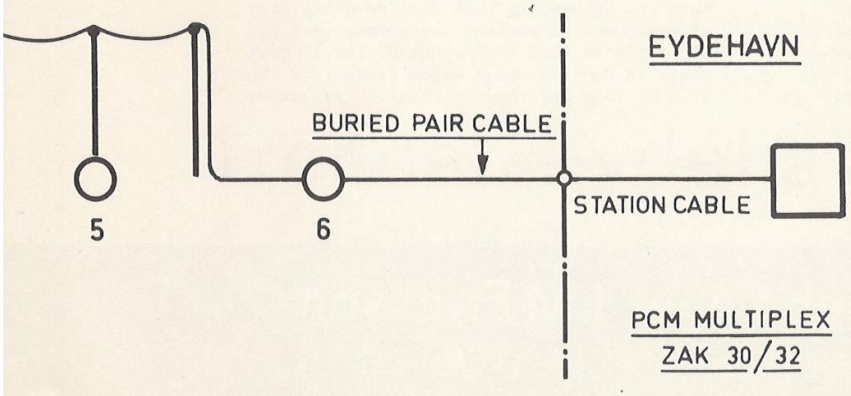




At repeater 3 the cable is polemounted and the loading coil box is at the top of the pole. The Norwegian Administration has chosen to place the PCM repeater boxes in wide shallow concrete pipes.



At repeater 6 both the cable and the loading coil box are buried. The stub cable from the repeater box is joined to the pair cable in the jointing box visible beyond the loading coil box.



Front page illustration:

Plugging in the regenerators at rep. 4.

Editorial

Quite apart from its well-known activities in the field of telecommunications, the Ericsson group is also quite a prolific publishing house, with an impressive annual output of printed material.

The reader may therefore justly ask why we have felt obliged to introduce yet another publication - especially one so decidedly unimpressive as Transmission News.

What is TN going to say that hasn't already been said and what is it going to say that really needs to be said?

In answering these questions let us first mention that TN is published by the Long Distance Division and will therefore be devoted almost exclusively to transmission matters.

This in itself fully justifies its existence, for even though the Ericsson group is producing itself in print both freely and lavishly the Long Distance Division has hitherto had no regular publication of its own.

As for its contents the primary objective will be information - practical and useful information. We will simply try to inform our customers and representatives of what we are doing - new products - new ideas and developments - new or unusual applications. Any advertisements that we may run in international publications will from time to time be reproduced in Transmission News (perhaps with a little extra background information).

TN will also inform its readers of any new leaflets, descriptions and reprints that may become available from the Long Distance Division.

In general TN will not be tied to any fixed dates or any other limiting rules or regulations. It will be issued whenever we have something interesting to say and it will include whatever material we wish to bring to the notice of our readers. We will also try to be guided by the readers response to our efforts. Should the news reach us that TN serves mainly as filling material in waste-paper baskets all over the world we may well decide to radically alter its style or its contents.

PCM leaflet now available

The PCM leaflet has just arrived from the printers. 8 glossy pages richly illustrated with photos and drawings in full colour. Available with English or Spanish text.

Contact your nearest L M Ericsson office or representative.

Ericsson Review - reprints on PCM

Ericsson Review No 1 1972 and No 2 1972, includes together no less than four papers on various aspects of PCM, namely:

PCM Transmission
by W.Widl

Characteristics of PCM techniques. International System Standardization. Basic Design of L M Ericsson's PCM system. Prospects.

Fields of Application for PCM Systems
by E.Ohlsson

Application Problems
Network Planning
Economic Aspects
Urban Rural and Long Distance Networks

PCM Multiplex Equipment ZAK 30/32
by S.Lindqvist, H.J.Frizlen, J.Å.Carlsson

Fundamental principles of PCM. CCITT recommendations for PCM systems with 32 time slots.

System Principles of L M Ericsson's PCM Multiplex Equipment ZAK 30/32
The Pulse Code Modem
The HF-Adapter
The Signalling Unit
Data Adapter
Maintenance and Alarm
Mechanical Design
Technical Data

PCM Line Equipment ZAD 2
by J.Arras & H.Tarle

Line Equipment Design
Terminating Repeater
Dependent Repeater
Digital Regenerators
Cable Type and Repeater Spacing
Power Feeding
Surge Protection
Fault Localization and Service Telephone
Mechanical Design
Maintenance
Technical Data

Reprints of all these papers will shortly be available in English, Spanish or German.

Press stop!

Large PCM-order from the Swedish Administration

We have just received an order from the Swedish Administration for more than 7000 circuit terminals of PCM. The order includes more than 200 PCM terminals ZAK 30/32 and a large number of line systems ZAD 2. The equipment which is valued at 11 million Sw.Crs. will be installed in towns and cities all over Sweden. A large number of systems will be installed in Stockholm and Gothenburg with smaller quantities of equipment in various towns from Umeå in the north to Lund in the south. The longest route is Umeå-Tavelsjö which is no less than 30.6 km long and thus requires 19 repeaters.

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