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(54) Title: **PACKET RADIO SYSTEM, AND A TERMINAL EQUIPMENT FOR A PACKET RADIO SYSTEM**

(57) Abstract

A packet radio system encapsulates data packets of external data networks by a point-to-point protocol PPP (Fig. 4A, 4B), and passes them through one or more sub-networks to a point which supports the protocol of the encapsulated data packet. In addition, a special radio link protocol of the packet radio network is required on the radio interface between a mobile data terminal equipment and a support node. PPP packets are encapsulated in data packets of said radio link protocol. The disadvantage of the arrangement is that the data packets of both the PPP protocol and the radio link protocol contain protocol-specific control fields, which reduces the transmission capacity of user information. Therefore, a PPP packet is compressed (Fig. 4C) before the encapsulation (Fig. 4D) by removing therefrom the unnecessary control fields. After having been transferred over the radio interface, the PPP packet is decompressed into its original format (Fig. 4F, 4G).

