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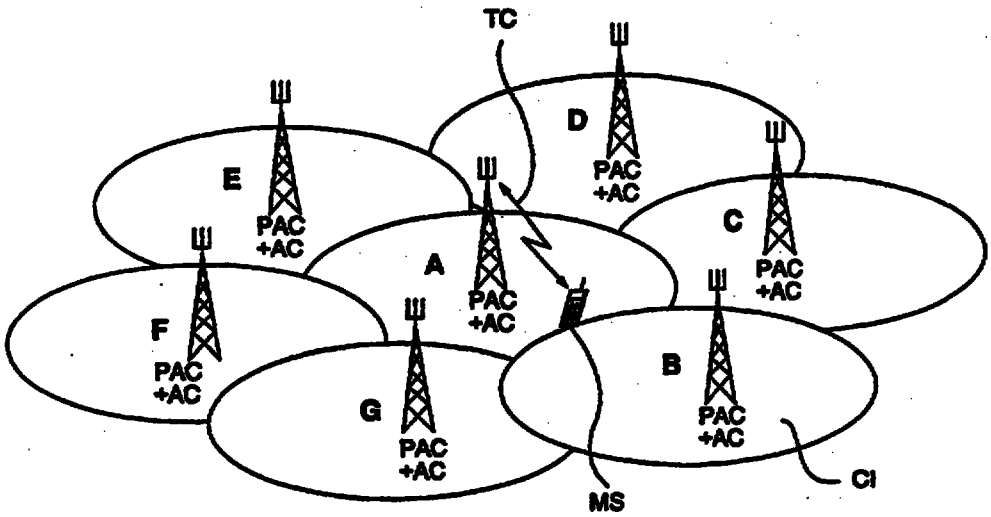

(57) Abstract

An analogue mobile telesystem has traffic channel cells (C1), each of which includes a base station (A-G). These base stations handle combined control channels (PAC) for paging a mobile station (MS), and also access channels (AC) for establishing connections to or from the mobile station (MS). The mobile station has information concerning the frequencies of all of the access channels and the connections are established on duplex traffic channels (TC). The geographical area covered by respective traffic channel cells (C1) is determined by virtue of enabling all traffic channels (TC) within this area to be used for predetermined, common purposes. Each of the traffic channel cells (C1) has at least two access channels (PAC, AC) spaced apart at a desired frequency distance and having the same radio coverage as the traffic channels (TC). When desiring access, the mobile station (MS) scans the strength or power of all access channels on two separate occasions at a mutual spacing of 20 milliseconds. The duplex access channels (PAC, AC) assist the mobile station (MS) in finding the strongest access channel (PAC, AC) despite heavy fading. The mobile station (MS) thereby establishes a connection on the traffic channel (TC) in the most suitable cell (C1) having the highest signal strength. Unnecessary handoffs are avoided and speech quality is improved.

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