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(54) **BASE STATION HAND-OFF MECHANISM FOR CELLULAR COMMUNICATION SYSTEM**

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(57) **ABSTRACT**

A channel hand-off control mechanism for a cellular communication network uses the same channels employed for communications between base stations of adjacent cells and a mobile transceiver, as the mobile transceiver moves between those cells, in order to locate the mobile transceiver relative to the base stations, so that the acquiring base station may readily place a narrowbeam channel on the mobile transceiver at hand-off. Each base station employs a phased array antenna, which allows the base station to controllably define its antenna coverage pattern with respect to any mobile transceiver, so as to minimize interference from one or more other transceivers, reducing frequency reuse distance.

32 Claims, 5 Drawing Sheets

