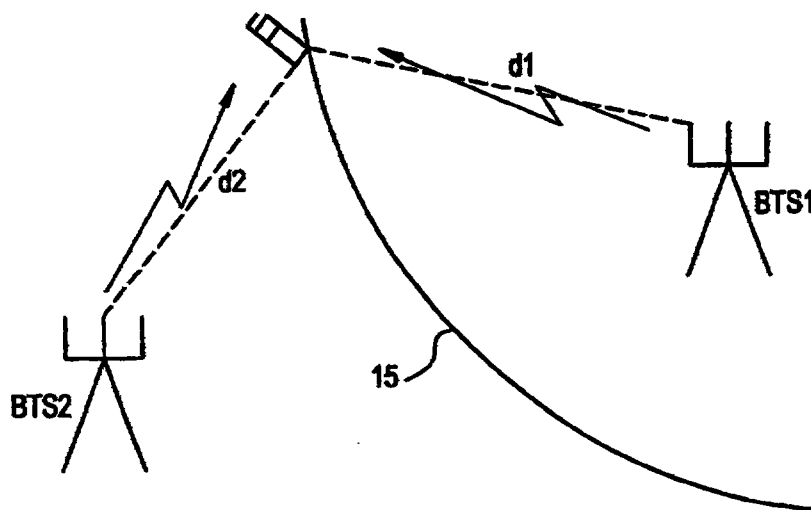




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(54) Title: IMPROVEMENTS IN DOWNLINK OBSERVED TIME DIFFERENCE MEASUREMENTS



(57) Abstract

A mobile communication station in (MS1) a wireless communication network is used to measure the respective times of arrival of radio signals respectively transmitted by a plurality of radio transmitters (23, 28) in the network. The mobile communication station is provided with real time difference information indicative (RTDs) of differences between a time base (60) used by a radio transmitter (23) serving the mobile communication station and respective time bases used by the other radio transmitters. The mobile communication station determines, in response to the real time difference information and relative to the time base used by the radio transmitter serving the mobile communication station, a plurality of points in time at which the respective radio signals are expected to arrive at the mobile communication station. For each radio signal, the mobile communication station monitors for arrival of the radio signal during a period of time after the point in time at which the radio signal is expected to arrive.