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### (54) DOPPLER SHIFT ESTIMATE REPORTING WITH PRE-COMPENSATION

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#### (57)ABSTRACT

A first cellular base station transmits a configuration message to a reporting device installed on a high-speed vehicle. The configuration message specifies one or more parameters of a Doppler measurement report. The reporting device performs one or more first Doppler measurements on the first base station and/or one or more second Doppler measurements on a second base station. The reporting device transmits the Doppler measurement report to the first and/or second base stations. The Doppler measurement report may be used by the first and/or second base stations to perform Doppler pre-compensation on transmissions to the reporting

Receive configuration message from base station

Perform Doppler measurements

Transmit Doppler measurement report to base station