

Title (en)

METHODS FOR GYRO BIAS ESTIMATION USING GPS

Title (de)

VERFAHREN ZUR KREISELNULLPUNKTABWEICHUNGSSCHÄTZUNG MITTELS GPS

Title (fr)

PROCEDES PERMETTANT D'ESTIMER LE BIAIS D'UN GYROSCOPE AU MOYEN DU GPS

Publication

**EP 0934506 A2 19990811 (EN)**

Application

**EP 98939051 A 19980402**

Priority

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Abstract (en)

[origin: WO9849577A2] Augmenting the GPS receiver (30) with some form of Dead Reckoning (DR), such as a gyros (35), fills in the gaps occurring as a result of loss of GPS coverage. The present invention permits reliable and automatic estimation and calibration of the gyro zero rate bias. In particular, three specific methods (FIGs. 2-4) are disclosed whereby one method (FIG. 2) makes use of a "GPS gyro" for detecting vehicle heading change, another (FIG. 3) makes use of a "GPS accelerometer" for detecting stationary periods, and another (FIG. 4) makes use of a Kalman filter model for open loop heading error and is used to extract the contribution of and so estimate the gyro bias.

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CPC (source: EP US)

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