

ABSTRACT

The present invention relates to a method for protecting a radionavigation receiver user in relation to aberrant pseudo-range measurements. This method is characterized in that a measurement error is detected by a statistical estimation scheme based on calculating the residuals of the measurements.

This method makes it possible, in particular, in a manner which is autonomous of any ground segment (therefore implementing a RAIM functionality) to boost the performance of an off-the-shelf receiver (termed "primary") without any integrity function, to detect possible errors contaminating measurements on input to the calculation of the position, through the use of a robust estimation statistical algorithm, that is to say one truly unaffected by measurement errors, and implementing a dynamic criterion, and to calculate a robust correction for the position provided by the primary receiver by excluding such an error if it is detected.

Fig. 1

