

ABSTRACT

METHOD AND SYSTEM FOR LOCATING A TRANSMITTER

- 5 The invention relates to a method and a system for locating a transmitter device (20i) on the basis of N stations (10j), by using at least one date-stamping benchmark common to the N stations comprising at least the following steps:
- triggering one or more synchronized acquisitions on N stations for a
10 given frequency, a bandwidth and a given instant t, the said values being chosen as a function of a transmitter device of interest, for an acquisition, at the level of a master station (10):
 - calculating the $N(N-1)/2$ measurements of arrival time delay between all the $N(N-1)/2$ pairs of stations,
 - 15 • choosing a number P of measurements out of the $M=N(N-1)/2$ measurements, and forming K vectors of measurements associated with the K possible combinations,
 - for each of the K vectors, estimating an elementary value of location of the transmitter by minimizing a given quadratic criterion and by
20 iteration on the basis of a first value of a vector $\vec{X}_0$ of initial position, the position is situated as near as possible to the sought-after minimum and by successively estimating locations making it possible to decrease the criterion to be minimized until a threshold value,
 - 25 • calculating a fused location value on the basis of the estimated values of elementary location.

Figure 1 to be published