

ABSTRACT

METHOD FOR LOCATING A MOBILE OBJECT BASED ON BISTATIC DISTANCE AND SPEED MEASUREMENTS OF SAID OBJECT USING A MULTISTATIC SYSTEM

The present invention relates to a method of locating a mobile object on the basis of bistatic distance and speed measurements of this object using a multistatic system, and it is characterized in that at least two bistatic distance pairs are associated such that for each pair the ellipsoids which determine them have a common focus, that for each pair the intersection of these two ellipses is solved at various altitudes, that the various intersections are optimized with respect to the altitude variable z , that having found the best value of z , the three-dimensional Cartesian coordinates of this object are calculated, that, having ascertained the coordinates of the object and at least three bistatic speeds, the direction and the modulus of the true 3D speed vector of the mobile object are deduced.

FIGURE 1