Positioning System, Method and Computer Program Product utilizing Inputs from Geostationary Communication Satellites

ABSTRACT

A navigation system comprising at least one terminal configured to at least once transmit, to a communicant, e.g. via n > = 1 satellite/s, a request for a reply transmission and wherein the communicant, responsively, at least once transmits a response transmission to the terminal. The terminal measures the response transmission's time of arrival and/or round-trip time and determines a round-trip time characterizing the terminal's own communication, via each of the satellite/s, with the communicant, and/or the terminal's own range (aka distance) from each of the satellite/s. The terminal is configured to derive self-orientation data from at least said round-trip time and from internal delay data characterizing the at least one satellite and/or the communicant.

[Fig. 7]