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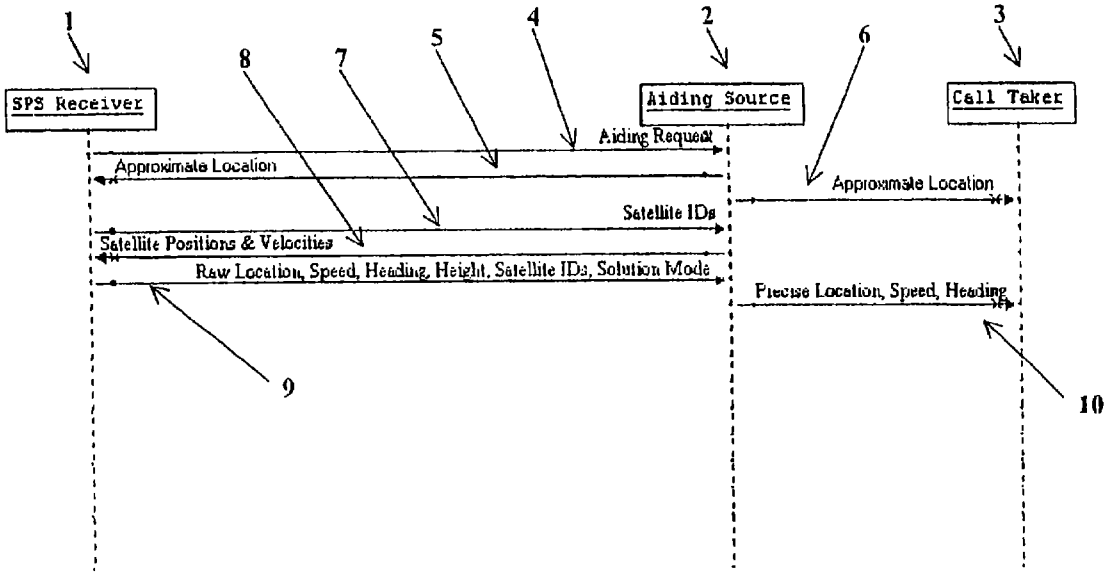
(54) Title: SATELLITE-BASED POSITIONING SYSTEM RECEIVER FOR WEAK SIGNAL OPERATION



(57) Abstract: A method, device and system for determining a receiver location using weak signal satellite transmissions. The invention involves a sequence of exchanges between an aiding source and a receiver that serve to provide aiding information to the receiver so that the receiver's location may be determined in the presence of weak satellite transmissions. With the aiding information, the novel receiver detects, acquires and tracks weak satellite signals and computes position solutions from calculated pseudo ranges despite the inability to extract time synchronization date from the weak satellite signals.

WO 02/059639 A1