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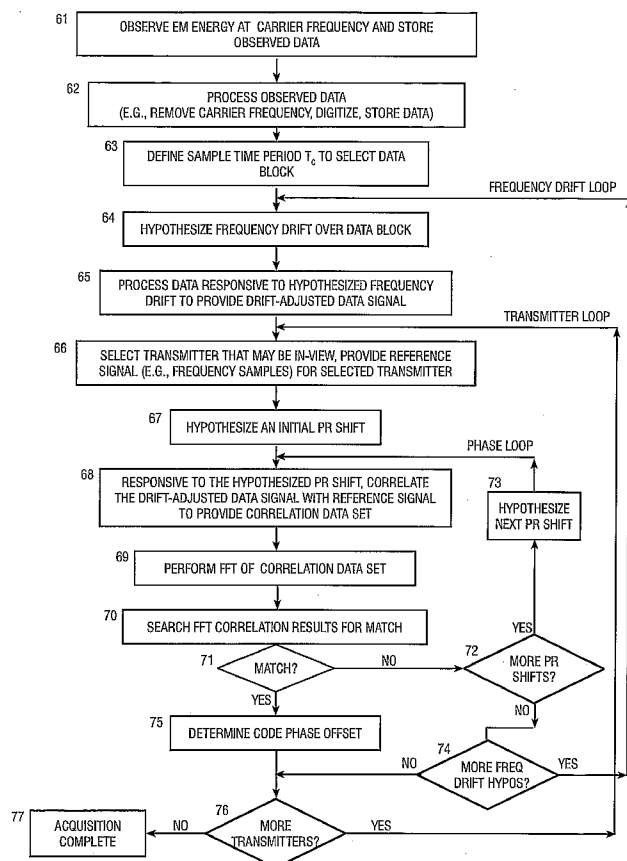
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(54) Title: METHOD AND APPARATUS FOR INCREASING COHERENT INTEGRATION LENGTH WHILE RECEIVING A POSITIONING SIGNAL



(57) Abstract: A receiving method and apparatus for increasing coherent integration length while receiving a positioning signal from transmitters such as GPS satellites. In order to compensate for frequency drifts that may occur in the positioning signal, a hypothesis is made as to the frequency drift, which is inserted into the receiving algorithm. Advantageously, the length of coherent integration can be increased at the expense of reducing the length of incoherent integration while keeping the total integration length the same, the net effect of which is an increase in signal detection sensitivity. The frequency drift hypothesis has any appropriate waveform; for example, approximately linear or exponential. The hypothesized frequency drift can be inserted into the receiver algorithm in any suitable place; for example, the data block may be adjusted for the hypothesized frequency drift, alternatively the reference signal may be adjusted, or the frequency samples of either the data block or the reference signal may be adjusted.



Declarations under Rule 4.17:

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

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