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(12) **United States Patent**  
**Walker et al.**

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(54) **SYSTEMS AND METHODS OF CORRELATING SATELLITE POSITION DATA WITH TERRESTRIAL FEATURES**

(58) **Field of Classification Search**  
CPC ..... G01S 19/38; G01S 19/39; G01S 19/40; G01S 19/42; G01S 19/421; G01S 19/423;  
(Continued)

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(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

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This patent is subject to a terminal disclaimer.

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**Related U.S. Application Data**

(60) Division of application No. 15/984,930, filed on May 21, 2018, now Pat. No. 10,474,731, which is a (Continued)

(57) **ABSTRACT**

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A method of correlating satellite position data with terrestrial features may include the steps of: Defining a two-dimensional grid comprising a plurality of grid points at defined locations; rounding the satellite position data to the nearest grid point of the defined two-dimensional grid to create an amplitude data table, each rounded satellite position data point in the amplitude data table defining a reference grid point value; matching the terrestrial survey data to at least four adjacent grid points of the defined two-dimensional grid to create a terrestrial coordinate table; merging the amplitude data table and the terrestrial coordinate table

(52) **U.S. Cl.**  
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