

US009086441B2

# (12) United States Patent Haddy

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(10) Patent No.: US 9,086,441 B2

(45) **Date of Patent:** 

Jul. 21, 2015

#### (54) DETECTION OF BURIED ASSETS USING CURRENT LOCATION AND KNOWN BUFFER ZONES

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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.

(21) Appl. No.: 14/572,329

(22) Filed: Dec. 16, 2014

(65) Prior Publication Data

US 2015/0097568 A1 Apr. 9, 2015

### Related U.S. Application Data

(63) Continuation-in-part of application No. 14/519,910, filed on Oct. 21, 2014, which is a continuation-in-part of application No. 14/226,397, filed on Mar. 26, 2014, now Pat. No. 8,872,626, which is a continuation-in-part of application No. 14/060,301, filed on Oct. 22, 2013, now Pat. No. 8,823,492, which is a continuation-in-part of application No. 13/745,846, filed on Jan. 20, 2013, which is a continuation-in-part of application No. 13/543,612, filed on Jul. 6, 2012, now Pat. No. 8,358,201.

(51)	Int. Cl.	
	G01V 3/08	(2006.01)
	G01R 31/02	(2006.01)
	G01V 3/12	(2006.01)
	G08C 17/02	(2006.01)
	GOIV 3/15	(2006.01)

 58) Field of Classification Search CPC ......... G01R 31/023; G01V 3/12; G01V 3/15; G01V 3/08; G08C 17/02

USPC ...... 324/326–329; 702/1, 2, 8; 340/8.1

See application file for complete search history.

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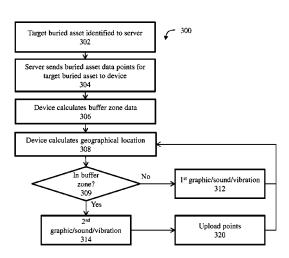
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#### (57) ABSTRACT

A method on a mobile computing device for locating electromagnetic signals radiating from a buried asset is disclosed. The method includes receiving buried asset data points corresponding to a buried asset, reading a predefined value, generating, based on the buried asset data points, a two dimensional area comprising a buffer zone at an above-surface location, wherein a width of the buffer zone corresponds to the predefined value, and wherein the buffer zone corresponds to the buried asset, and iteratively executing the following four steps: a) calculating an above-surface location, b) determining whether the above-surface location is located within the two dimensional area, c) if the above-surface location is not located within the two dimensional area, displaying a first graphic in a display, and d) if the above-surface location is located within the two dimensional area, displaying a second graphic.

#### 7 Claims, 14 Drawing Sheets



(2013.01)