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(12) **EX PARTE REEXAMINATION CERTIFICATE** (10261st)**United States Patent****Alles et al.**(10) **Number:** **US 7,561,104 C1**(45) **Certificate Issued:** **Aug. 18, 2014**(54) **METHOD TO MODIFY CALIBRATION DATA USED TO LOCATE A MOBILE UNIT**(75) Inventors: **Martin Alles**, Vienna, VA (US); **John Carlson**, Dulles, VA (US); **George Maher**, Herndon, VA (US); **Seleuk Mazlum**, Leesburg, VA (US)(73) Assignee: **JPMorgan Chase Bank, N.A.**, New York, NY (US)**Reexamination Request:**

No. 90/012,694, Sep. 24, 2012

**Reexamination Certificate for:**

Patent No.: **7,561,104**  
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**Related U.S. Application Data**

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(51) **Int. Cl.**  
**G01S 3/02** (2006.01)(52) **U.S. Cl.**  
USPC ..... **342/451; 342/457**(58) **Field of Classification Search**

None

See application file for complete search history.

(56) **References Cited**

To view the complete listing of prior art documents cited during the proceeding for Reexamination Control Number 90/012,694, please refer to the USPTO's public Patent Application Information Retrieval (PAIR) system under the Display References tab.

*Primary Examiner* — Angela M Lie(57) **ABSTRACT**

A method of modifying calibration data used to geo-locate a mobile station located in an indoor environment is disclosed. When a mobile station is located indoors, the signal strength of signals received and/or transmitted by the mobile station have the tendency to be lower than the strength of the signals received by a mobile station located outdoors. As a result of these lower signal strengths, geo-location efforts which rely on signal strengths may result in unsatisfactory location accuracy. Modifying pre-existing calibration data obtained outdoors may provide a way to simulate indoor calibration data characteristics.

1001

Providing a Database of Calibration

1003

Collecting Network Measurement Data

1005

Comparing Network Measured Data with the Calibration Data to Determine a Plurality of Location Estimates

1007

Determining a Confidence Measure

1009

Determining a Location Based on the Plurality of Location Estimates and the Respective Confidence Measures

**EX PARTE  
REEXAMINATION CERTIFICATE  
ISSUED UNDER 35 U.S.C. 307**

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THE PATENT IS HEREBY AMENDED AS  
INDICATED BELOW.

AS A RESULT OF REEXAMINATION, IT HAS BEEN  
DETERMINED THAT:

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The patentability of claims **1-14** is confirmed.  
Claims **15-21** are cancelled.

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