



US007672782B2

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

(10) **Patent No.:** **US 7,672,782 B2**

(45) **Date of Patent:** **Mar. 2, 2010**

(54) **TRAFFIC ALERT POLICE RADAR**

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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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(21) Appl. No.: **12/184,307**

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(22) Filed: **Aug. 1, 2008**

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(65) **Prior Publication Data**

US 2009/0002221 A1 Jan. 1, 2009

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**Related U.S. Application Data**

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(63) Continuation of application No. 10/688,472, filed on Oct. 17, 2003, now Pat. No. 7,409,294.

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(51) **Int. Cl.**

**G01C 21/26** (2006.01)

(52) **U.S. Cl.** ..... **701/301**; 701/93; 382/181; 382/207; 180/170; 340/435

(58) **Field of Classification Search** ..... 701/301, 701/1, 41, 93, 95; 382/181, 207; 180/170; 348/118; 340/435, 436; *G01C 21/26*

See application file for complete search history.

(57) **ABSTRACT**

An enhanced police Doppler direction sensing radar detects possibly dangerous traffic conditions during certain vehicle maneuvers such as U-turns and returns to travel after roadside stops. By monitoring a host or primary vehicle speed, speed transitions, transmission state (e.g. gear selection), and the closing vehicle position, range and speed, a number of selectable conditions are detected, resulting in an alert indication to a primary vehicle operator. User preferences and thresholds allow the traffic alert function to be customized according to a primary vehicle operator's desire to suppress alerts in situations which the user does not deem dangerous. The traffic alert function may be automatically triggered under certain detected conditions, or manually initiated when the primary vehicle operator intends to make a driving maneuver.

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**20 Claims, 12 Drawing Sheets**

