



US010013820B2

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

(10) **Patent No.:** **US 10,013,820 B2**  
(45) **Date of Patent:** **Jul. 3, 2018**

- (54) **VEHICLE SPEED-BASED ANALYTICS**
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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.

- (58) **Field of Classification Search**  
CPC ..... G07C 5/0808; G07C 5/008; G07C 5/02; G06Q 10/20; G06F 17/30241  
See application file for complete search history.

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- (21) Appl. No.: **15/376,030**
- (22) Filed: **Dec. 12, 2016**
- (65) **Prior Publication Data**  
US 2017/0169631 A1 Jun. 15, 2017

- Related U.S. Application Data**
- (60) Provisional application No. 62/267,486, filed on Dec. 15, 2015.

- (51) **Int. Cl.**  
**G08G 1/09** (2006.01)  
**G07C 5/08** (2006.01)  
**G07C 5/02** (2006.01)  
**G07C 5/00** (2006.01)  
**G06Q 10/00** (2012.01)  
**G06F 17/30** (2006.01)
- (52) **U.S. Cl.**  
CPC ..... **G07C 5/0808** (2013.01); **G07C 5/008** (2013.01); **G07C 5/02** (2013.01); **G06F 17/30241** (2013.01); **G06Q 10/20** (2013.01)

- (57) **ABSTRACT**  
A system for optimizing a travel speed of an off-road vehicle utilizes time-over-target values as a threshold indicator for diagnostics and subsequent remedial actions. A road used for haulage is divided into a plurality of predetermined road segments. A target transit time is defined for each of the predetermined segments to provide a target speed curve. An actual transit time values is measured for the off-road vehicle in transiting the road. A comparison outcome is generated by comparing the target transit time value with the actual transit time value. The comparison outcome is useful in diagnosing causes of operation trouble and in scheduling remedial action to address the operational trouble.

**25 Claims, 9 Drawing Sheets**

