

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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WESTINGHOUSE AIR BRAKE TECHNOLOGIES CORPORATION,  
(d/b/a WABTEC CORPORATION)  
Petitioner,

v.

SIEMENS INDUSTRY, INC.,  
Patent Owner.

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Case IPR2017-00650  
Patent 7,742,850 B2

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Before KRISTEN L. DROESCH, MEREDITH C. PETRAVICK, and  
TIMOTHY J. GOODSON, *Administrative Patent Judges*.

GOODSON, *Administrative Patent Judge*.

DECISION  
Denying Institution of *Inter Partes* Review  
*37 C.F.R. § 42.108*

## I. INTRODUCTION

Petitioner filed a Petition (Paper 2, “Pet.”) requesting *inter partes* review of claims 1–14 of U.S. Patent No. 7,742,850 B2 (Ex. 1001, “the ’850 patent”). Patent Owner filed a Preliminary Response to the Petition. Paper 10 (“Prelim. Resp.”). We have authority under 35 U.S.C. § 314, which provides that an *inter partes* review may not be instituted “unless . . . there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” We decide whether to institute an *inter partes* review on behalf of the Director. Upon consideration of the Petition and Patent Owner’s Preliminary Response, we do not institute an *inter partes* review of any claims of the ’850 patent.

### A. Related Matters

The parties report that Patent Owner is asserting the ’850 patent against Petitioner in *Siemens Industry, Inc. v. Westinghouse Air Brake Tech. Corp.*, Case No. 1-16-cv-00284 in the U.S. District Court for the District of Delaware. Pet. 13; Paper 4, 2; Paper 6, 1. In addition, the parties identify one Board proceeding as a related matter: Case IPR2017-00582, which concerns U.S. Patent No. 7,467,032. Paper 4, 2; Paper 6, 1.

### B. The ’850 Patent

The ’850 patent relates to a “method for keeping track of end of train units.” Ex. 1001, 1:16–18. According to the Background of the ’850 patent, “end of train (EOT) units are typically attached at the rear of the last car on a train” and can perform various functions, including monitoring pressure in the air brake pipe and transmitting that information to the head of the train (HOT). *Id.* at 1:20–25. EOT units can also accept a command from the HOT to open the air brake pipe, thereby activating the brakes to stop the

train. *Id.* at 1:26–28. EOT units can include motion detectors or GPS receivers that are used to provide motion or location information to the HOT. *Id.* at 1:29–34.

“[I]t is often necessary to install and remove EOT units from individual cars in a train yard,” such as when the train’s cars are shuffled or reformed. *Id.* at 1:47–50. EOT units that are removed are often placed by the wayside for later collection, and then become lost or temporarily misplaced. *Id.* at 1:51–54. Lost EOT units cause expense beyond the cost of the EOT unit itself because “rent must be paid for the time when an EOT unit from one railroad is in another railroad’s territory.” *Id.* at 1:54–59.

The ’850 patent seeks to address this problem by providing an EOT unit “that includes a positioning system such as a GPS receiver and that is configured to transmit a message including the EOT unit’s location” when various conditions occur, such as a loss of air pipe pressure or in response to a query from a device located off the train. *Id.* at 1:65–2:4. A transceiver in the EOT unit is capable of two-way communications with the HOT relating to various on-train functions, and can also transmit a message including location information to an EOT monitoring station located off the train. *Id.* at 2:4–6, 4:45–63.

### *C. Challenged Claims*

Petitioner challenges claims 1–14. Claims 1 and 8 are independent claims. Claim 1 is reproduced below, with bracketed labels as added by Petitioner to facilitate reference to particular elements:

1. A method for end of train unit operation comprising the steps of:
  - [a] transmitting a first wireless message from an end of train unit- to an end of train unit-monitoring station located off of any

train, the first wireless message including a location of the end of train unit and an identifier that uniquely identifies the end of train unit, the end of train unit including an end of train marker light and a pressure sensor configured to determine air pressure in an air brake pipe;

- [b] receiving the first message including the location of the end of train unit at the end of train unit monitoring station;
- [c] transmitting the location of the train the end of train unit from the end of train unit monitoring station to a central authority;
- [d] transmitting the location of the end of train unit from the central authority to fourth device;
- [e] receiving the location of the end of train unit at the fourth device and displaying a location of the end of train unit on a map image on a display connected to the fourth device; and
- [f] transmitting a second wireless message to a fifth device located at the head of the train, the second wireless message including an air pressure sensed by the pressure sensor.

Ex. 1001, 10:10–34; *see also* Pet. 18–19 (adding bracketed labels).

#### *D. Alleged Grounds of Unpatentability*

Petitioner asserts the following grounds of unpatentability:

Reference	Basis	Claims Challenged
Curtis <sup>1</sup> in view of Collins <sup>2</sup> and Doner <sup>3</sup>	§ 103	1–3, 6–12, and 14
Curtis in view of Collins, Doner, and Mays <sup>4</sup>	§ 103	1–3, 6–12, and 14

<sup>1</sup> U.S. Patent No. 6,081,769, June 27, 2000, Ex. 1005.

<sup>2</sup> U.S. Patent App. Pub. No. 2002/0004693 A1, Jan. 10, 2002, Ex. 1006.

<sup>3</sup> U.S. Patent App. Pub. No. 2001/0044695 A1, Nov. 22, 2001, Ex. 1018.

<sup>4</sup> U.S. Patent App. Pub. No. 2002/0049520 A1, Apr. 25, 2002, Ex. 1008.

Curtis in view of Collins, Doner, Mays, and Bezos <sup>5</sup>	§ 103	4, 5, and 13
Curtis in view of Collins, Doner, and Bezos	§ 103	4, 5, and 13

See Pet. 18. In addition to the references listed above, Petitioner relies on the declaration of Steven R. Ditmeyer (Ex. 1002).

## II. ANALYSIS

### A. Claim Construction

We interpret the claims of an unexpired patent using the broadest reasonable interpretation in light of the specification of the patent. 37 C.F.R. § 42.100(b); *Cuozzo Speed Techs. LLC v. Lee*, 136 S. Ct. 2131, 2144–46 (2016). Under that standard, a claim term generally is given its ordinary and customary meaning, as would be understood by one of ordinary skill in the art in the context of the entire disclosure. See *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). For the purposes of this decision, resolution of the disputed issues does not require an express interpretation of any claim term. See *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999) (“[O]nly those terms need be construed that are in controversy, and only to the extent necessary to resolve the controversy.”).

### B. Obviousness Ground Based on Curtis in view of Collins and Doner

#### 1. Summary of Curtis

Curtis describes a method and apparatus for determining the length of a train. Ex. 1005, at (54), (57), 1:8–9. Curtis explains that safe operation of a train requires knowledge of its length so that an operator can assess

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<sup>5</sup> U.S. Patent No. 5,267,473, Dec. 7, 1993, Ex. 1009.

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