Paper: 56 Entered: October 24, 2018

## 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, Petitioner,

V.

SIEMENS MOBILITY, INC., Patent Owner.

Case IPR2017-01263 Patent 6,996,461 B2

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

 ${\bf GOODSON}, Administrative \ Patent \ Judge.$ 

FINAL WRITTEN DECISION 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73



### I. INTRODUCTION

Petitioner filed a Petition (Paper 2, "Pet.") requesting *inter partes* review of U.S. Patent No. 6,996,461 B2 (Ex. 1001, "the '461 patent") on the following three grounds:

	References	Basis	Claims Challenged
1.	Petit <sup>1</sup> and Blesener <sup>2</sup>	§ 103	1, 4–6, 14, 16, 17, 19, 28, 32, 35, 42–44, and 48
2.	RSAC <sup>3</sup> and Blesener	§ 103	1, 4–6, 14, 16, 17, 19, 28, 32, 35, 42–44, and 48
3.	RSAC, Blesener, and Petit	§ 103	1, 4–6, 14, 16, 17, 19, 28, 32, 35, 42–44, and 48

See Pet. 11. Patent Owner filed a Preliminary Response to the Petition. Paper 8 ("Prelim. Resp.").

We initially instituted an *inter partes* review on a subset of the challenged claims and asserted grounds. *See* Paper 10 ("Dec. on Inst."). Specifically, we determined based on the preliminary record that Petitioner had demonstrated a reasonable likelihood of prevailing in its challenge to claims 1, 4, 14, 16, 19, 28, 42–44, and 44 based on the combination of Ground 3. *Id.* at 24–35. We further determined that Petitioner had not demonstrated a reasonable likelihood of prevailing as to the other claims challenged in Ground 3, or as to the challenges in Grounds 1 and 2. *Id.* at 15–35. Based on those determinations, and in accordance with the Board's practice at that time, we instituted an *inter partes* review only as to claims 1,

<sup>&</sup>lt;sup>3</sup> Railroad Safety Advisory Committee, *Implementation of Positive Train Control Systems*, Ex. 1005.



<sup>&</sup>lt;sup>1</sup> U.S. Patent No. 5,092,544, issued Mar. 3, 1992, Ex. 1008.

<sup>&</sup>lt;sup>2</sup> Int'l Pub. No. WO 02/091013 A2, published Nov. 14, 2002, Ex. 1007.

4, 14, 16, 19, 28, 42–44, and 44 based on the combination of Ground 3. *Id.* at 35.

Subsequently, pursuant to the holding in *SAS Inst., Inc. v. Iancu*, 138 S.Ct. 1348, 1355–57 (2018), we modified our institution decision to institute on all of the challenged claims and all of the grounds presented in the Petition. Paper 21, 2. We also authorized supplemental briefing to permit the parties to address the newly added claims and grounds. Paper 23, 3–6. After briefing was completed and after the hearing, the parties filed a Joint Motion to Limit the Petition, which requested withdrawal of Ground 2 from consideration in this proceeding. Paper 50. We granted that Joint Motion. Paper 51. Thus, the challenges that remain at issue in this proceeding are Grounds 1 and 3 as listed in the table above.

The merits briefing in this proceeding includes the Petition, a Patent Owner Response (Paper 22, "PO Resp."), a Patent Owner Supplemental Response (Paper 28, "PO Supp. Resp."), and a Petitioner Reply (Paper 33, "Reply"). Both parties provided expert testimony in support of their arguments: Petitioner retained Mr. Steven Ditmeyer (*see* Ex. 1002 ¶ 2), and Patent Owner retained Mr. John Loud (*see* Ex. 2004 ¶ 1).

A transcript of the oral hearing is included in the record. Paper 54 ("Tr."). The record also includes short papers from the parties concerning an exhibit that Patent Owner submitted as supplemental information. *See* Paper 41; Paper 44. Patent Owner moved to exclude certain evidence, which motions we address in Section IV.

We have jurisdiction under 35 U.S.C. § 6. Petitioner bears the burden of proving unpatentability of the challenged claims, and the burden of persuasion never shifts to Patent Owner. *Dynamic Drinkware, LLC v. Nat'l* 



*Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015). To prevail, Petitioner must prove unpatentability by a preponderance of the evidence. *See* 35 U.S.C. § 316(e); 37 C.F.R. § 42.1(d). This Final Written Decision is issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. For the reasons that follow, we determine that Petitioner has not shown by a preponderance of the evidence that any claim of the '461 patent is unpatentable. *See* 35 U.S.C. § 316(e).

## A. Related Matters

Patent Owner is asserting the '461 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 ("the Parallel District Court Case"). Pet. vi; Paper 9, 2; Paper 17, 2. The parties also list the following Board proceedings as related matters:

- Case IPR2017-01270, concerning U.S. Patent No. 7,236,860;
- Case IPR2017-01533, concerning U.S. Patent No. 6,845,953; and
- Case IPR2017-01866, concerning U.S. Patent No. 7,036,774. Paper 9, 2; Paper 17, 1.

### B. The '461 Patent

The '461 patent is entitled "Method and System for Ensuring that a Train Does Not Pass an Improperly Configured Device." Ex. 1001, at [54]. Consistent with that title, the Background of the '461 patent indicates that the invention seeks to improve train safety by avoiding accidents due to improperly set switches or malfunctioning grade crossing gates. *Id.* at 1:13–

# 44. To that end, the '461 patent describes

a computerized train control system in which a control module determines a position of a train using a positioning system such as a global positioning system (GPS), consults a database to



determine when the train is approaching a configurable device such as a switch or grade crossing gate, continuously interrogates the device to determine its status as the train approaches the device, and forces an engineer/conductor to acknowledge any detected malfunction.

Id. at 1:49–57.

Repeatedly interrogating the device as the train approaches is beneficial because it permits detection of malfunctions or changes in configuration after the initial interrogation. *Id.* at 4:3–7. In addition, "it is preferable for the device's response to include its identification number as this allows for greater assurance that a response from some other source has not been mistaken as a response from the device." *Id.* at 4:10–14. The '461 patent also explains that an advantage of interrogating a configurable device as the train approaches is that the device need not transmit information when no trains are in the area, which saves power compared to wayside devices that continuously transmit status information. *Id.* at 5:28–35.

# C. Challenged Claims

As noted above, Petitioner challenges claims 1, 4–6, 14, 16, 17, 19, 28, 32, 35, 42–44, and 48.<sup>4</sup> Of these, claims 1, 14, 28, and 44 are independent claims. Claim 1 is reproduced below, with labels added by Petitioner for ease of reference:

<sup>&</sup>lt;sup>4</sup> The Petition references claim 25 in various places (*e.g.*, Pet. 11, 24), but in the body of the Petition, the argument is directed to claim 35 (*see id.* at 45–46, 63). *See* Pet. 11. Since the preliminary stage of this proceeding, Patent Owner has recognized that Petitioner's challenge is to claim 35, not claim 25. *See* Prelim. Resp. 37, 42. As reflected in our Decision on Institution, we disregard the Petition's references to claim 25 as typographical errors. *See* Dec. on Inst. 3, n.1.



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