

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

C&D ZODIAC, INC.,
Petitioner,

v.

B/E AEROSPACE, INC.,
Patent Owner.

Case IPR2017-01273
Patent 9,434,476 B2

Before JENNIFER S. BISK, MICHAEL J. FITZPATRICK, and
SCOTT A. DANIELS, *Administrative Patent Judges*.

BISK, *Administrative Patent Judge*.

DECISION

Denying Institution *Inter Partes* Review
35 U.S.C. § 314, 37 C.F.R. §§ 42.4, 42.108

I. INTRODUCTION

A. BACKGROUND

C&D Zodiac, Inc. (“Petitioner”), filed a Petition (Paper 2, “Pet.”) to institute an *inter partes* review of claims 1–6 (the “challenged claims”) of U.S. Patent No. 9,434,476 B2 (Ex. 1001, “the ’476 patent”). 35 U.S.C. § 311. B/E Aerospace, Inc. (“Patent Owner”), timely filed a Preliminary

Response. Paper 7 (“Prelim. Resp.”).¹ Institution of an *inter partes* review is authorized by statute when “the information presented in the petition filed under section 311 and any response filed under section 313 shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a); 37 C.F.R. § 42.108.

For the reasons that follow, we decline to institute an *inter partes* review.

B. ASSERTED GROUNDS OF UNPATENTABILITY

Petitioner contends that the challenged claims are unpatentable under 35 U.S.C. § 103(a)² based on the following grounds (Pet. 10–79):

References	Claims challenged
Admitted Prior Art ³ and U.S. Patent No. 3,738,497 (Ex. 1005, “Betts”)	1–6
Admitted Prior Art and KLM Overhead Crew Rest Document (Ex. 1009, “KLM Crew Rest”) ⁴	1–6

¹ Patent Owner filed two versions of the Preliminary Response: Paper 6, to which access is restricted to the parties and the Board; and Paper 7, a publicly available, redacted version of Paper 6. For purposes of this Decision, we refer only to Paper 7, the redacted version of the Preliminary Response.

² The Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, took effect on March 18, 2013. Because the application from which the ’476 patent issued was filed before that date, our citations to Title 35 are to its pre-AIA version.

³ Petitioner defines “Admitted Prior Art” as certain portions of the ’476 patent. Pet. 11–14 (citing Ex. 1001, Fig. 1, 1:24–26, 4:6–8).

⁴ File history for U.S. Application serial No. 09/947,275, which issued as

C. RELATED PROCEEDINGS

The parties have identified, as a related proceeding, the co-pending district court litigation of *B/E Aerospace, Inc. v. Zodiac Aerospace, Inc.*, Case No. 2:14-cv-01417 (E.D. Tex). Paper 5, 3; Pet. 2. Petitioner concurrently filed *inter partes* review proceedings IPR2017-01274, IPR2017-01275, and IPR2017-01276 challenging three related utility patents and PGR2017-00019 challenging a related design patent. Pet. 2.

In addition, Petitioner previously filed a Petition challenging Patent No. 8,590,838 (“the ’838 patent”) in IPR2014-00727, which resulted in a final written decision finding unpatentable claims 1, 3–7, 9, 10, 12–14, 16–19, 21, 22, 24–29, 31, and 33–37 of the ’838 patent. IPR2014-00727, Paper 65 (Oct. 26, 2015). On October 3, 2017, the Federal Circuit affirmed that decision. *B/E Aerospace, Inc. v. C&D Zodiac, Inc.*, 2017 WL 4387223 (Fed. Cir. Oct. 3, 2017). The ’476 is a continuation of application No. 14/043,500, which in turn is a continuation of application No. 13/089,063 that matured into the ’838 patent. Ex. 1001, [63]. The disclosure of the ’476 patent, therefore, is identical to that of the ’838 patent.

D. THE ’476 PATENT

The ’476 patent relates to space-saving aircraft enclosures, including lavatories, closets and galleys. Ex. 1001, 1:17–23, 2:17–22. Figure 2 of the ’476 patent is reproduced below.

U.S. Patent No. 6,520,451 to Moore and which file history contains a drawing and related description of a KLM Crew Rest. *See, e.g.*, Ex. 1009, 70. Petitioner terms the file history “the KLM Crew Rest Document.” Pet. 16. We employ the same nomenclature.

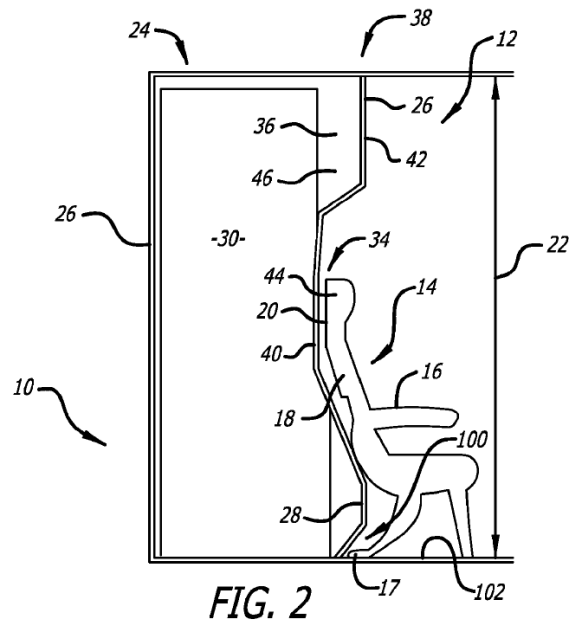


Figure 2, reproduced above, illustrates enclosure 10, such as a lavatory, positioned aft of aircraft cabin 12. Ex. 1001, 4:9–12, 4:17–24. Forward wall 28 of the lavatory is described as “substantially not flat in a vertical plane” and “disposed immediately aft of and adjacent to or abutting the exterior aft surface of” passenger seat 16. *Id.* at 4:24–34. In particular, the forward wall is shaped to provide recess 34, which accommodates the partially-reclined backrest of the passenger seat, as shown in Figure 2. *Id.* at 4:34–38. In addition, the forward wall is shaped to also provide lower recess 100, which accommodates “at least a portion of an aft-extending seat support 17.” *Id.* at 4:41–46.

The ’476 patent contrasts the embodiment of Figure 2 with a prior art configuration shown in Figure 1, which is reproduced below.

FIG. 1
(Prior Art)

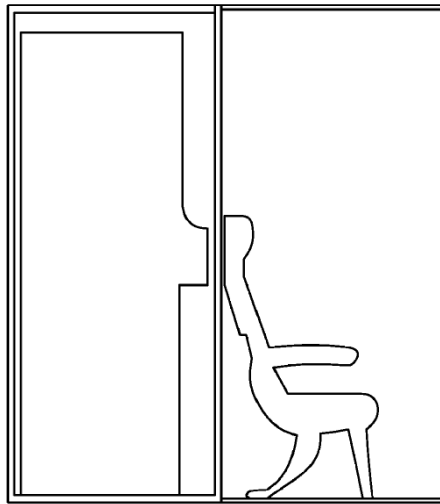


Figure 1, reproduced above, illustrates “a prior art installation of a lavatory immediately aft of and adjacent to an aircraft passenger seat.” Ex. 1001, 4:6–8.

E. THE CHALLENGED CLAIMS

Of the challenged claims, claims 1 and 2 are independent. Claim 1, which is illustrative, recites:

1. A method of retrofitting an aircraft to provide additional passenger seating in the cabin of said aircraft, the cabin including a passenger seat having a seat back with an exterior aft surface that is substantially not flat, a seat bottom, and a seat support that interfaces with the floor of the aircraft cabin and holds the seat bottom in an elevated position above the floor of the aircraft cabin, the method comprising the steps of:

installing an aircraft enclosure unit comprising

a forward wall, said forward wall being part of an outer boundary defining a single enclosed space that includes a toilet, said forward wall being substantially not flat and configured to receive a portion of the exterior aft surface of the seat back when the seat back is in an unreclined seat position;

wherein said forward wall is adapted to provide more space forward of the enclosure unit such that the seat support can be

positioned further aft in the cabin than if the cabin included another enclosure unit having a substantially flat front wall located in substantially the same position in the cabin as the forward wall, and

wherein said enclosed space is taller than the passenger seat; and

positioning said seat support further aft in said aircraft cabin than said seat support could have been positioned prior to retrofitting said aircraft, whereby a portion of the exterior aft surface of said passenger seat back in the unreclined seat position is received by said forward wall.

Id. at 5:6–35.

II. ANALYSIS

A. CLAIM INTERPRETATION GENERALLY

“A claim in an unexpired patent that will not expire before a final written decision is issued shall be given its broadest reasonable construction in light of the specification of the patent in which it appears.” 37 C.F.R. § 42.100(b). When applying that standard, we interpret the claim language as it would be understood by one of ordinary skill in the art in light of the specification. *In re Suitco Surface, Inc.*, 603 F.3d 1255, 1260 (Fed. Cir. 2010). Thus, we give claim terms their ordinary and customary meaning. *See In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007) (“The ordinary and customary meaning ‘is the meaning that the term would have to a person of ordinary skill in the art in question.’”). Only terms which are in controversy need to be construed, and then only to the extent necessary to resolve the controversy. *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999).

B. THE HYPOTHETICAL ENCLOSURE UNIT LIMITATION

Although neither party proposes an express construction for this limitation (*see* Pet. 30–31; Prelim. Resp. 25–27), we nevertheless address the meaning of “wherein said forward wall is adapted to provide more space forward of the enclosure unit such that the seat support can be positioned further aft in the cabin than *if the cabin included another enclosure unit having a substantially flat front wall located in substantially the same position in the cabin as the forward wall,*” which we refer to as “the hypothetical enclosure unit limitation.”⁵ Ex. 1001, 5:21–27 (emphasis added).

Having considered the entire record, we are unable to determine the metes and bounds of this limitation. It is clear that this limitation requires the forward wall of the claimed enclosure unit to provide more space such that the seat support can be positioned “further aft in the cabin” compared to some other configuration (the “frame of reference configuration”). This frame of reference configuration, however, is unclear. For example, the language “if the cabin included another enclosure unit,” by its plain language, requires the second configuration in the claimed comparison to include an *additional* hypothetical enclosure unit, with its own “front wall” that is “located in substantially the same position in the cabin as the forward wall.” Clearly, having two enclosures with front walls in substantially the

⁵ Independent claim 2 includes a limitation with very similar wording, “wherein said forward wall is adapted to provide more space forward of the enclosure unit such that the seat support can be positioned further aft in the cabin than *if the cabin included another enclosure unit having a front wall that is substantially flat and is located in substantially the same position in the cabin as the forward wall.*” Ex. 1001, 6:5–13 (emphasis added).

same position is likely to be physically impossible. This limitation, therefore, would only make sense were the second configuration to instead include an *alternative* hypothetical enclosure unit.

However, even if we were to overlook its plain meaning and read the language “if the cabin included another enclosure unit” to mean an alternative hypothetical enclosure unit, the limitation does not recite any of the other characteristics of such alternative enclosure unit. This leaves us to compare the claimed enclosure unit with a configuration that we know nothing about, except that it has an alternative hypothetical enclosure unit with “a substantially flat front wall located in the substantially the same position in the cabin as the forward wall.” Among the questions unanswered is what it means for a substantially flat wall to be “in substantially the same position” as a wall that is explicitly “substantially not flat.” It is unclear, for example, whether such comparison is made between the forward-most section of the claimed “substantially not flat” wall or the aft-most section.

In its analysis, Petitioner does not shed light on the claim scope of the hypothetical enclosure unit. Instead, Petitioner explains that “[a] person of ordinary skill in the art would realize that [Betts’] contoured forward wall provides additional space forward of the enclosure unit for the seat to be placed further aft in an aircraft cabin than would be possible if the forward wall was instead substantially flat” and that the KLM Crew Rest design “allows for passenger seats to be placed further aft than they could be placed with a flat wall.” Pet. 36, 59 (citing Ex. 1004 ¶¶ 103–105, 146). There is no explanation, however, of how the required comparison was made. We cannot find, and Petitioner does not point to, any part of the specification of the ’476 patent which reveals any definite frame of reference explaining the

relationship between the claimed “substantially not flat” forward wall and the hypothetical “substantially flat front wall.” Indeed, Petitioner appears to conflate the hypothetical enclosure unit limitation with the subsequent claim limitation of “positioning said seat support further aft in said aircraft than said seat support could have been positioned prior to retrofitting said aircraft.” *Id.* at 36–37 (Petitioner, arguing in support of its obviousness challenge that “Betts specifically states that it ‘provide[s] more room for passengers in an aircraft.’”), 59 (“This allows for additional seating in the cabin of an aircraft when installed.”).

In summary, Petitioner has not provided sufficient information for a determination of the scope of the hypothetical enclosure unit limitation and, therefore, we cannot conduct the necessary factual inquiry for determining whether the prior art meets this limitation. *See In re Aoyama*, 656 F.3d 1293, 1298 (Fed. Cir. 2011) (quoting *Enzo Biochem, Inc. v. Applera Corp.*, 599 F.3d 1325, 1332 (Fed. Cir. 2010)) (“[A] claim cannot be both indefinite and anticipated.”); *In re Steele*, 305 F.2d 859, 862–63 (CCPA 1962) (reversing the Board’s decision of obviousness because it relied on “what at best are speculative assumptions as to the meaning of the claims”); 37 C.F.R. § 42.104(b)(3)–(4) (A petition must show “[h]ow the challenged claim is to be construed” and “[h]ow the construed claim is unpatentable.”).

We are unable to conclude, therefore, that there is a reasonable likelihood that Petitioner would prevail in either of its challenges of claims 1–6.

III. CONCLUSION

For the foregoing reasons, based on the information presented in the Petition, we are not persuaded that there is a reasonable likelihood that

IPR2017-008581273

Patent 9,434,476 B2

Petitioner would prevail in showing unpatentability of claims 1–5 of the '476 patent. We, therefore, decline to institute *inter partes* review as to any of the challenged claims. 37 C.F.R. § 42.108.

IV. ORDER

It is ordered that the Petition is *denied* as to all challenged claims, and no trial is instituted.

IPR2017-008581273

Patent 9,434,476 B2

PETITIONER:

KILPATRICK TOWNSEND & STOCKTON LLP

John C. Alemanni

Dean W. Russell

David A. Reed

Michael T. Morlock

Andrew Rinehart

jalemanni@kilpatricktownsend.com

drussell@kilpatricktownsend.com

dareed@kilpatricktownsend.com

MMorlock@kilpatricktownsend.com

arinehart@kilpatricktownsend.com

PATENT OWNER:

IRELL & MANELLA LLP

Michael R. Fleming

Benjamin Haber

mfleming@irell.com

bhaber@irell.com