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Paper 100
Entered: December 15, 2015

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

PETROLEUM GEO-SERVICES INC.,
and
ION GEOPHYSICAL CORPORATION
AND ION INTERNATIONAL S.A.R.L.,
Petitioner,

v.

WESTERNGECO LLC,
Patent Owner.

Case IPR2014-00687[1]
Patent 7,162,967 B2

Before BRYAN F. MOORE, SCOTT A. DANIELS, and BEVERLY M. BUNTING, *Administrative Patent Judges.*

DANIELS, *Administrative Patent Judge.*

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

[1] Case IPR2015-00566 has been joined with this proceeding.

I. INTRODUCTION

A. Background

Petroleum Geo-Services ("Petitioner," or "PGS") filed a Petition to institute an *inter partes* review of claims 1 and 15 of U.S. Patent No. 7,162,967 B2 ("the '967 patent").[2] Paper 1 ("PGS Pet."). WesternGeco LLC ("Patent Owner") timely filed a Preliminary Response. Paper 26 ("First Prelim. Resp."). We instituted trial in *Petroleum Geo-Services, Inc., v. WesternGeco L.L.C.*, Case IPR2014-00687, (the "PGS IPR"), for claims 1 and 15 of the '967 patent on certain grounds of unpatentability alleged in the Petition. Paper 33 ("Decision to Institute" or "Inst. Dec."). Patent Owner, in due course, filed a Response. Paper 44 ("Response"). Petitioner subsequently filed a Reply. Paper 77 (Reply).

In a separate proceeding, *ION Geophysical Corporation and ION International S.A.R.L., v. WesternGeco L.L.C.*, Case IPR2015-00566 (PTAB Jan. 14, 2015) (the "ION IPR"), ION Geophysical Corporation and ION International S.A.R.L. ("ION") also filed a Petition to institute an *inter partes* review of claims 1 and 15 of the '967 patent. Paper 3 ("ION Pet."). With their Petition, ION also filed a Motion for Joinder, Paper 4 ("Mot."), seeking to join the ION IPR with the PGS IPR. Mot. 2. Patent Owner filed an Opposition to ION's Motion for Joinder. Paper 10 ("Opp.,"). We instituted trial in the ION IPR and granted ION's Motion for Joinder. Paper

[2] The Petition was initially accorded the filing date of April 23, 2014. Paper 6. Following submission of an updated Mandatory Notice (Paper 18) on August 5, 2014, including additional real-parties-in-interest, the filing date of the Petition was changed to August 5, 2014 and we exercised our discretion under 37 C.F.R. § 42.5(c) to set a new deadline for Patent Owner's preliminary response. Paper 22, 6.

53 ("ION Decision to Institute" or "ION Inst. Dec."). We ordered ION not to file papers, engage in discovery, or participate in any deposition or oral hearing in IPR2014-00687 without obtaining authorization. ION was, however, permitted to appear in IPR2014-00687 so that it could receive notification of filings and attend depositions and the oral hearing. Patent Owner subsequently filed a Preliminary Response to ION's Petition. Paper 70 ("ION Prelim. Resp.").

An oral hearing was held on July 30, 2015. A transcript of the hearing is included in the record. Paper 99 ("Tr.").

The Board has jurisdiction under 35 U.S.C. § 6(c). This Final Written Decision is entered 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 proven, by a preponderance of the evidence, that claims 1 and 15 of the '967 patent are unpatentable.

B. Additional Proceedings

Lawsuits involving the '967 patent presently asserted against Petitioner include *WesternGeco LLC v. Petroleum Geo-Services, Inc.*, 4:13-cv-02725 (the "PGS lawsuit") in the Southern District of Texas and *WesternGeco LLC v. ION Geophysical Corp.*, 4:09-cv- 01827 (the "ION lawsuit") also in the Southern District of Texas. ION Pet. 10.

The '967 patent is related to the patents involved in IPR2014-00688 and IPR2014-00689.

C. The '967 Patent

The '967 patent (Ex. 1001), titled "Control System for Positioning of Marine Seismic Streamers," generally relates to a method and apparatus for improving marine seismic survey techniques to more effectively control the movement and positioning of marine seismic streamers towed in an array

behind a boat. Ex. 1001, 1:24–36. As illustrated in Figure 1 of the '967 patent, reproduced below, labeled "Prior Art", a seismic source is towed by boat 10, for example air gun 14, producing acoustic signals which are reflected off the earth below. *Id.* at 3:41–43.

Fig.1.
Prior Art

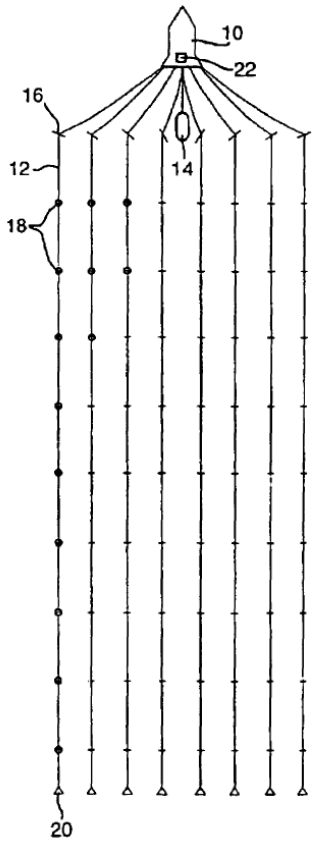


Figure 1 depicts an array of seismic streamers 12 towed behind vessel 10. The streamers each have a plurality of horizontally and vertically steerable "birds" 18 also referred to in the '967 patent as "streamer positioning devices." *Id.* at 3:53–55. In this Decision we use the terms "birds," "streamer positioning devices," or "SPD's," interchangeably. The reflected acoustic signals are received by hydrophones (no reference

number) attached to streamers 12, and the signals "digitized and processed to build up a representation of the subsurface geology." *Id.* at 1:38–41. Birds 18 are horizontally and vertically steerable and control the shape and position of the streamer in both vertical (depth) and horizontal directions. *Id.* at 3:53–61. The birds's job is usually to maintain the streamers in their linear and parallel arrangement, because, when the streamers are horizontally out of position, the efficiency of the seismic data collection is compromised. *Id.* at 2:14–17. The most important task of the birds, according to the '967 patent, is to keep the streamers from tangling. *Id.* at 4:4–5.

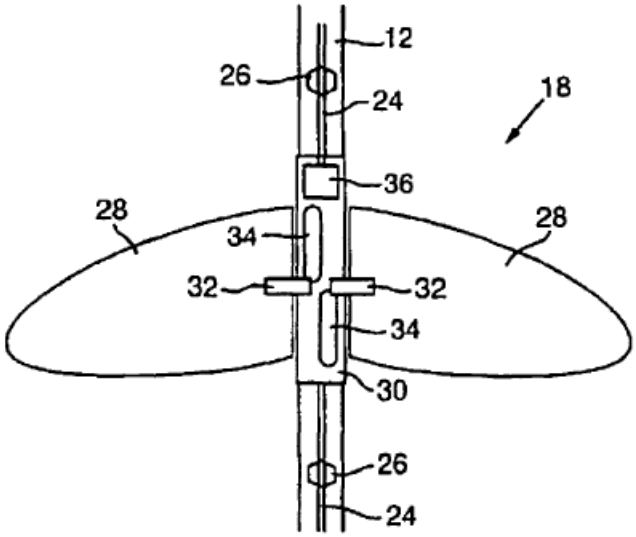
In order to obtain accurate survey data, it is necessary to control the positioning of the streamers, both vertically in the water column, as well as horizontally against ocean currents and forces, which can cause the normally linear streamers to bend and undulate and, in some cases, become entangled with one another. *Id.* at 1:42–2:25. As depicted by Figure 1, each streamer 12 is maintained in a generally linear arrangement behind the boat by deflector 16 which horizontally positions the end of each streamer nearest the vessel. *Id.* at 1:43–45. Drag buoy 20 at the end of each streamer farthest from the vessel creates tension along the streamer to maintain the linear arrangement.

Figure 1 also discloses global control system 22 positioned on vessel 10. The '967 patent states that "the control system for the birds 18 is distributed between a global control system 22 located on or near the seismic survey vessel 10 and a local control system located within or near the birds 18." *Id.* at 3:62–66. The global control system 22 on the vessel can be connected to the vessels navigation system to obtain various parameters

"such as the vessel's towing direction and velocity and current direction and velocity, from the vessel's navigation system." *Id.* at 4:1–3.

Figure 2 of the '967 patent, reproduced below, illustrates a preferred embodiment of bird 18 as it relates to the described invention.

Fig.2.



As depicted by Figure 2 of the '967 patent, when the streamers are towed, birds 18 are capable of controlling their own position, and hence the position of streamer 12, in both horizontal and vertical directions. *Id.* at 5:34–36.

In a preferred embodiment according to the '967 patent, the "global control system 22 monitors the actual positions of each of the birds 18 and is programmed with the desired positions of or the desired minimum separations between the seismic streamers 12." *Id.* at 4:22–25. The control system uses the desired and actual position of the birds to "regularly calculate updated desired vertical and horizontal forces the birds should impart on the seismic streamers 12 to move them from their actual positions

to their desired positions." *Id.* at 4:37–40. The '967 patent further states that as part of the overall control system "global control system 22 preferably calculates the desired vertical and horizontal forces based on the behavior of each streamer and also takes into account the behavior of the complete streamer array." *Id.* at 4:53–57.

D. Illustrative Claim

Claims 1 and 15 are independent. Claim 1 is a method claim, and claim 15, reproduced below, an apparatus claim, illustrates the claimed subject matter:

> 15. An array of seismic streamers towed by a towing vessel comprising:
>
> (a) a plurality of streamer positioning devices on or inline with each streamer, at least one of the streamer positioning devices having a wing;
>
> (b) *a global control system* transmitting location information to at least one local control system on the at least one streamer positioning device having a wing, the local control system adjusting the wing.

Ex. 1001, 12:33–41 (emphasis added).

E. The Alleged Grounds of Unpatentability

Petitioner contends that the challenged claims are unpatentable on the following specific grounds.[3]

References	Basis	Claims Challenged
'636 PCT[4]	§ 102	1 and 15

[3] Petitioner supports its challenge with Declarations of Dr. Brian J. Evans, Ph.D. (Ex. 1002)("Evans Decl.") and Dr. Jack H. Cole, Ph.D. (Ex. 1003)("Cole Decl."). *See infra*.

[4] Ex. 1004, WO 98/28636 (July 2, 1998).

’636 PCT	§ 103	1 and 15

II. CLAIM CONSTRUCTION

A. Legal Standard

In an *inter partes* review, claim terms in an unexpired patent are interpreted according to their broadest reasonable construction in light of the specification of the patent in which they appear. 37 C.F.R. § 42.100(b); *see also In re Cuozzo Speed Techs., LLC.*, 778 F.3d 1271, 1278–82 (Fed. Cir. 2015) (“Congress implicitly approved the broadest reasonable interpretation standard in enacting the AIA,” and “the standard was properly adopted by PTO regulation.”). Claim terms are given their ordinary and customary meaning as would be understood by a person of ordinary skill in the art at the time of the invention and in the context of the entire patent disclosure. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). If the specification “reveal[s] a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess[,] . . . the inventor’s lexicography governs.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1316 (Fed. Cir. 2005) (en banc) (citing *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002)).

If an inventor acts as his or her own lexicographer, the definition must be set forth in the specification with reasonable clarity, deliberateness, and precision. *Renishaw PLC v. Marposs Societa’ per Azioni*, 158 F.3d 1243, 1249 (Fed. Cir. 1998). If a feature is not necessary to give meaning to what the inventor means by a claim term, it would be “extraneous” and should not be read into the claim. *Renishaw PLC*, 158 F.3d at 1249; *E.I. du Pont de Nemours & Co. v. Phillips Petroleum Co.*, 849 F.2d 1430, 1433 (Fed. Cir. 1988). 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).

We apply these general rules in construing the claims of the '967 patent.

In our Decision to Institute, we construed only one term, determining that "local control system" means "a control system located on or near the streamer positioning devices." Inst. Dec. 9–10. Based on the full record developed during trial, we adopt that construction for purposes of this Decision and provide construction for the following additional claim terms.

B. Global Control System

Patent Owner contends that the broadest reasonable interpretation of "global control system" is "a control system configured to *coordinate all streamer positioning devices* in the array." PO Resp. 8 (emphasis added). Patent Owner argues that "[t]his construction is mandated by the claim language, specification, and the very purpose of the '967 invention." *Id.*

Patent Owner asserts that the proper understanding of "global control system" is dependent on the ordinary meaning that the word "global" would impart to one of ordinary skill in the art. PO Resp. 10. Patent Owner initially points to an ordinary meaning from the MERRIAM WEBSTER DICTIONARY, defining "global" to mean "of, relating to, or constituting, an organic whole." PO Resp. 10 (*citing* Ex. 2066). Based on this dictionary definition, Patent Owner contends that in the context of a seismic survey vessel towing "an array of streamers" as recited in claims 1 and 15, to a person of ordinary skill in the art, "global," means "that the *entire* array of streamers were being controlled." *Id.* at 10 (citing Ex. 2042 ¶ 91) (emphasis added). Patent Owner's Declarant, Dr. Triantafyllou testifies also that

> [m]y understanding of a "global control system" stems from the use of the word "global." This term is specific. To a POSA, it means that the control system oversees and affects the entire system. It is aimed at ***coordinated*** control.

Ex. 2024 ¶ 91. In support of his testimony Dr. Triantafyllou points to the specification of the '967 patent for two examples of how coordinated control of the entire system can occur, e.g. by "delivering force values 'as separate values for ***each bird*** 18 on ***each streamer continuously*** during operation of the control system,'" (*Id.* at ¶ 91 (citing Ex. 1001, 5:20–23)); and also "that '[t]he global control system 22 preferably calculates the desired vertical and horizontal forces based on the behavior of each streamer and also takes into account the behavior of ***the complete streamer array***.'" *Id.* at ¶ 91 (citing Ex. 1001, 4:54–57). Based on such examples from the specification Dr. Triantafyllou concludes that "global control system" is not merely control of the entire array of streamers, but that it is "a control system configured to *coordinate all streamer positioning devices* in the array." *Id.* at ¶ 93 (emphasis added).

We must take care when reading a patent specification to interpret and understand the claims and requisite claim language in light of the disclosure, while not inappropriately importing variations and specific embodiments into a claim interpretation. *See Superguide Corp. v. DirecTV Enterprises, Inc.*, 358 F.3d 870, 875 (Fed. Cir. 2004). ("Though understanding the claim language may be aided by the explanations contained in the written description, it is important not to import into a claim limitations that are not a part of the claim."). The written description portions relied upon by Dr. Triantafyllou in support of Patent Owner's claim construction are preferred embodiments and examples in the '967 patent specification explaining *how* to control the streamers. For example, the specification states that "[i]n the

preferred embodiment of the present invention, the global control system 22 monitors the actual positions of each of the birds 18." Ex. 1001, 4:21–23. Also, the '967 patent describes that "[t]he global control system 22 *preferably* calculates the desired vertical and horizontal forces based on the behavior of each streamer." Ex. 1001, 4:54–56. The '967 patent is replete with language and examples indicating alternative and exemplary embodiments, including the statement just prior to the claim listing that "[t]he present invention includes *any* novel feature or novel combination of features disclosed herein, either explicitly or implicitly." *Id.* at 11:12–14 (emphasis added). "[W]hile . . . claims are to be interpreted in light of the specification and with a view to ascertaining the invention, it does not follow that limitations from the specification may be read into the claims." *Comark Commc'ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1186 (Fed. Cir. 1998) (citation omitted.). Accordingly, we are not persuaded that any of the exemplary embodiments from the specification or Dr. Triantafyllou's interpretation based on such specific embodiments that allegedly "coordinate all streamer positioning devices" should be read into "global control system." *See* Ex. 2042 ¶ 93.

It is also not clear from Dr. Triantafyllou's testimony why one of ordinary skill in the art would limit the term global control system to "coordinate *all* streamer positioning devices in the array," as propounded in Patent Owner's claim construction. We find no testimony or explanation apart from the specification examples, nor are we apprised of any persuasive evidence in Dr. Triantafyllou's testimony that *all* the SPD's in the array must be coordinated in order to guide all the streamers and achieve a "global control system." Dr. Triantafyllou states in his Declaration that "[i]n the context of seismic surveying, a POSA would have understood that the global

control system coordinated the control of the entire array of streamers." Ex. 2042 ¶ 91. Indeed, Dr.Triantafyllou further testified during his deposition that in certain cases *less* than all the SPD's, and even less than all the streamers, would still be considered a global control system.

> 6 Q So all of the SPDs on the streamers that
> 7 are being controlled need to be controlled by the
> 8 global control system.
> 9 A **The ones that you want to control, yes.**
> 10 Q The streamers that you want to control.
> 11 **A The streamers you want to control.**

Ex. 1091, 122:6–11.

We find no persuasive reference or evidence in the specification or the claim language, nor do we find persuasive Dr. Triantafyllou's reliance on the preferred embodiments in the specification, that the meaning of "global" was intended to be restricted to coordination of *all* SPD's in the array as Patent Owner's construction currently reads. Moreover, the language of the claim itself does not support the understanding that *all* the streamer positioning devices in the array are controlled. A plain reading of claim 15 requires on each streamer "a plurality of streamer positioning devices," but, by reciting further the limitation of transmitting "information to at least one local control system", it is clearly conveyed to the reader that not all the streamer positioning devices need be controlled. This is consistent with Dr. Triantafyllou's deposition testimony above.

We understand from the specification, the claim language, and Dr. Triantafyllou's testimony that controlling all the streamer positioning devices on each streamer *would* facilitate control of the streamer array, however, we are not persuaded by the evidence in the record that control of

all SPD's is a requirement of claim 1 imparted by the term "global control system." Accordingly, we do not construe "global positioning system" to require all streamer positioning devices to be controlled and we decline to adopt Patent Owner's construction. *See SuperGuide Corp.* at 875 ("a particular embodiment appearing in the written description may not be read into a claim when the claim language is broader than the embodiment.").

We are also not persuaded to read the word "coordinate" as advocated by Dr. Triantafyllou into the claim construction. The word "coordinate" is not found anywhere in the specification of the '967 with respect to relative control between all the streamers or all the SPD's. The specification uses the phrase, "to coordinate control," only once, and only to describe a prior art "two-wing" SPD and its local control system.[5] *See* Ex. 1001 5:34–38, 6:10–14. Dr. Triantafyllou does not specifically define the word "coordinate," but uses it as essentially a more nuanced word than "control" to facilitate explanation of a "global control system." Dr. Triantafyllou stated during his deposition:

> Q And it's missing coordination of all the SPDs, correct?
>
> A **All the ones that you need to control. So that is not a strong statement. You can choose to ignore some, but the ones that you want to control, you have to send signals. But the more important word is "coordinated."**

[5] This portion of the specification states that "FIG. 2 shows a type of bird 18 that is capable of controlling the position of seismic streamers 12 in both the vertical and horizontal directions. A bird 18 of this type is also disclosed in our PCT International Application No. WO 98/28636." Ex. 1001 5:34–38.

Ex. 1091, 131:2–14. Dr. Triantafyllou's use of the word "coordinate[d]" is, however, based on the specification examples and preferred embodiments in the '967 patent explaining how the streamers and SPD's are "continuously" controlled. *See* Ex. 2042 ¶ 91. Because, as discussed above, we do not read limitations from these preferred embodiments and examples in the specification into the claims we also are not persuaded that the term "coordinate" should be read into the claims as a substitute, or in addition to the word "control."

We do not wholly discount Dr. Triantafyllou's testimony. Dr. Triantafyllou has over 40 years of experience in the field of marine vehicle dynamics and control. Ex. 2042 ¶ 1. He has a bachelor's degree in Naval Architecture and Marine Engineering, as well as a Master of Science and Mechanical Engineering, a Master's of Science in Ocean Engineering, and a Ph.D. in Ocean Engineering from MIT. *Id.* at ¶ 2. Since 1979 Dr. Triantafyllou has been an MIT faculty member and professor, including Director of the Center for Ocean Engineering at MIT, as well as a visiting research scientist at the Woods Hole Oceanographic Institute. *Id.* at ¶¶ 6, 9. Dr. Triantafyllou's testimony is entitled to certain weight. We are persuaded that one of skill in the art would understand that the term "global" is not entirely superfluous, but that it has some functional and structural meaning relative to "control system" as well as to the other structures, e.g. streamers and streamer positioning devices, recited in claims 1 and 15. Given that a plain meaning of the term "global" can relate to or apply to a whole, and that claim 1 requires each streamer to have "at least one streamer positioning devices having a wing" that can be adjusted by a local control system, it is reasonable to understand a "whole" being the "array of seismic streamers" called for in the claims. *See* PO Resp. 10 (*citing* Ex. 2066). Following from

this basic definition, Dr. Triantafyllou's testifies that the word "global" modifies "control system" in such a way as to convey to one of skill in the art that "the control system oversees and affects the entire system." *See* Ex. 2024 ¶ 91. Dr. Triantafyllou qualified this phrase from his Declaration somewhat, when asked at his deposition,

22 Q Okay. Doctor, it's your interpretation
1 of the global control system that it oversees the
2 entire array.
3 **A The entire controlled array.**

Ex. 1091, 120:22–121:3. Dr. Triantafyllou explains here that a global control system would oversee not the "entire array," but the "entire controlled array." We are persuaded by Dr. Triantafyllou's testimony that not all the streamers, or SPD's, in an array must be controlled, but that the global control system must be capable of controlling all the streamers and all the SPD's that one would need, or want, to oversee in the array. *See id.* at 122:6–11. Dr. Triantafyllou was definitive that all the SPD's could be controlled, but that one might choose, or not be able, to control all the SPD's and streamers in an array:

9 Q This notion that you can ignore some of
10 the SPDs, can you point me anywhere in your
11 declaration to where you suggested that?
12 **A Practical aspects. One of the control**
13 **devices has broken down. You are not going to say,**
14 **[t]his ends the global control system**.

Ex. 1091, 131:2–14. In other words, Dr. Triantafyllou testified that it is not necessary to control each SPD to retain the nature of a global control system being capable of overseeing and affecting the array.

Petitioner argues that "global control system" should be interpreted as the parties originally agreed, i.e. as "a control system that sends commands to other devices in a system (*e.g.*, local control systems)." Reply 3, Pet. 24, Prelim. Resp. 26–27. Petitioner points out that the agreed upon construction is the same construction promoted by Patent Owner in the underlying ION lawsuit and adopted in that proceeding by the district court. *Id.* (citing Ex. 1017, 16–19). Petitioner specifically contends that Patent Owner's new construction is unreasonable because it improperly reads in limitations from the specification and requires the global control system to send commands to *all* the streamer positioning devices. *Id.* at 4.

In our Decision to Institute we stated with respect to the term "global positioning device" that "[w]e are not persuaded that either party has provided sufficient reason to ascribe further functional elucidation to this term" because the parties' proposed construction was essentially a restatement of the functional claim language already recited in the claims. *See* Inst. Dec. 8. Paragraph (b) of claim 1 recites:

> (b) transmitting from a *global control system* location information to at least one local control system on the at least one streamer positioning devices having a wing;

Ex. 1001, 11:20–23 (emphasis added). First, on its face, a "global control system" is clearly a control system. We also know from the express language in the claim itself that the "global control system" is "transmitting," information to a local control system. We understand no substantive distinction, nor did the parties explain why any such distinction should be made, between the words "transmitting" and the word "sending" in the context of the global control systems' function. Also, instead of the word "information" as recited in the claim, the earlier proposed construction

uses the word "command." It is not explained by either party why substitution of the term "command" in contrast to "information" was reasonable under the broadest reasonable interpretation. The word "command" is found nowhere in the specification of the '967 patent. The specification does explain in one embodiment that there are certain forces "that the global control system 22 has *instructed* the local control system to apply to the streamer 12." Ex. 1001 6:29–30 (emphasis added). However, in another embodiment the specification states that "the global control system 22 can transmit location *information* to the local control system 36 instead of force *information*." *Id.* at 45–47 (emphasis added). We are not apprised of any reasoning, explanation, or evidence on this record that persuades us to supplant "information" with "command," or that such a substitution provides further clarity to understanding the term "global control system."

The claim next calls for information to be transmitted "to at least one local control system on the at least one streamer positioning devices having a wing." In comparison, the originally proposed claim construction sends commands "to other devices in a system (e.g., local control systems)." A "local control system" is understood as another device relative to the "global control system," this is clear on the face of the claim. What this construction does, however, is merely state in words, the nature of what we already understand from the plain meaning of the claim and the term "comprising," i.e. that the claim is not limited to sending information merely to a "local control system" but could send information to other "devices" not specifically recited in the claim. *In re Skvorecz*, 580 F.3d 1262, 1267–68 (Fed. Cir. 2009); *In re Crish*, 393 F.3d 1253, 1257 (Fed. Cir. 2004). The originally proposed claim construction is therefore, on this record, merely a

restatement of the plain meaning of the claim language as currently recited in claims 1 and 15 and does not make any more clear for purposes of this proceeding the meaning of "global positioning system" under the broadest reasonable interpretation of that term.

Based on the specification, claim language and evidence on the complete record before us, we determine that, under the broadest reasonable interpretation, and giving the words their plain and ordinary meaning consistent with the specification, the phrase "global control system" is "a control system capable of overseeing and affecting the array of streamers and streamer positioning devices."

III. ANALYSIS

A. Claims 1 and 15 – Anticipation by the '636 PCT

To prevail on its patentability challenge, Petitioner must establish facts supporting its challenge by a preponderance of the evidence. 35 U.S.C. § 316(e); 37 C.F.R. § 42.1(d). Petitioner asserts that claims 1 and 15 are anticipated by the '636 PCT under 35 U.S.C. § 102. Pet. 29–40; Pet. Reply 10–26. Patent Owner disagrees, and focuses its argument on distinguishing the claimed "global control system" from the control system disclosed in the '636 PCT; Disputes that the '636 PCT discloses either a global, or remote control system; and contests Petitioner's reliance on the "remote control system" allegedly disclosed as prior art in the '636 PCT. PO Resp. 16–23.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. Inc., v. Union Oil Co.*, 814 F.2d 628, 631 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the . . . claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236 (Fed. Cir. 1989). The elements must be arranged as

required by the claim, but this is not an *ipsissimis verbis* test, i.e., identity of terminology is not required. *In re Bond*, 910 F.2d 831, 832 (Fed. Cir. 1990).

> [U]nless a reference discloses within the four corners of the document not only all of the limitations claimed but also all of the limitations arranged or combined in the same way as recited in the claim, it cannot be said to prove prior invention of the thing claimed and, thus, cannot anticipate under 35 U.S.C. § 102.

Net MoneyIN, Inc. v. VeriSign, Inc., 545 F.3d 1359, 1371 (Fed. Cir. 2008).

1. Overview of the '636 PCT

The '636 PCT discloses a streamer positioning device, e.g. "a bird," for controlling the position of a marine seismic streamer as it is towed behind a boat in a streamer array. Ex. 1004, 2. Figure 1 of the '636 PCT, reproduced below, illustrates streamer control device 10 attached to seismic streamer 14. *Id.* at 3–4.

Fig.1.

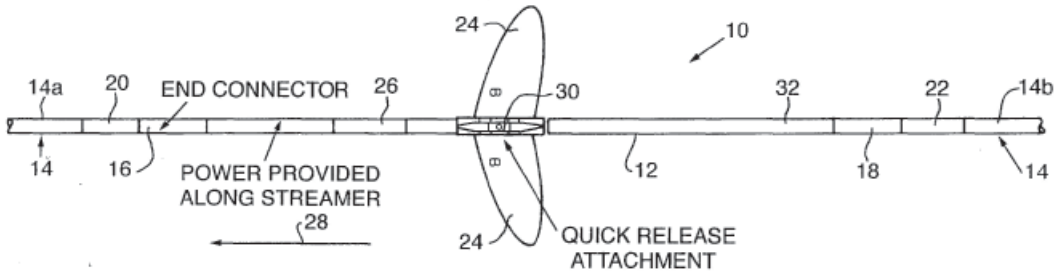
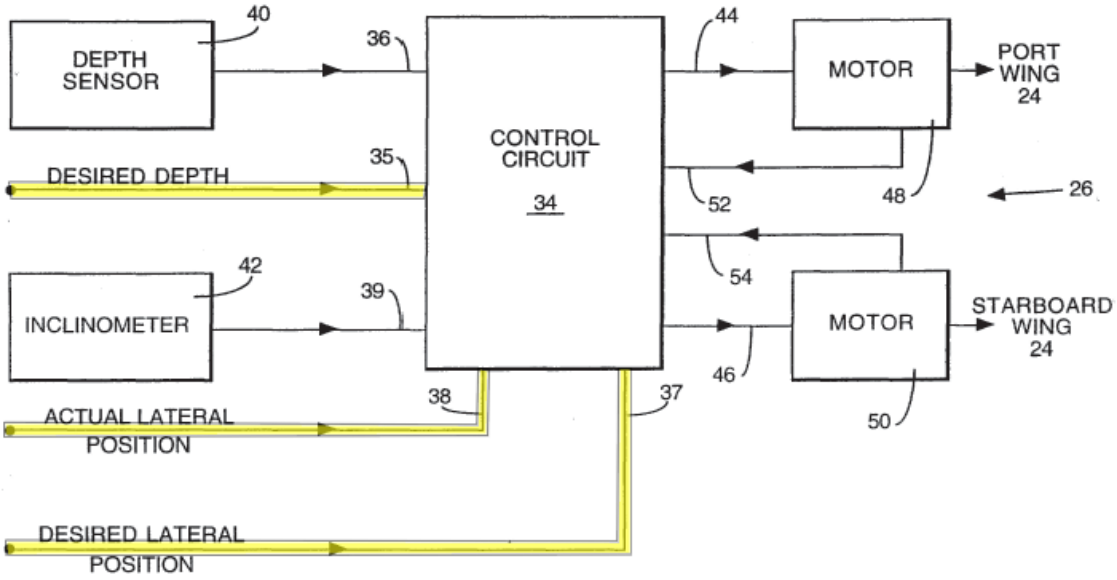


Figure 1 of the '636 PCT, above, illustrates bird 10 controlled by wings 24 according to a control system and control circuit to move the bird, and hence the streamer, in both a vertical (up and down) and lateral (left and right) direction, to achieve a desired position of the streamer in the water. *Id.* at 5–6.

The control system disclosed by the '636 PCT is illustrated by Figure 2, reproduced below, and includes control circuit 34 with inputs 35–39 for

receiving signals indicating actual depth and lateral position (36, 38), as well as desired depth and desired lateral position (35, 37).

Fig.2.



As depicted diagrammatically by annotated Figure 2 of the '636 PCT, above, a depth sensor, typically mounted on the bird, provides an actual depth signal to control circuit 34. *Id.* at 5. The actual and desired lateral position signal as well as the desired depth signal, shown highlighted in yellow, are also received by control circuit 34 from an external positioning determining system (*id.*) to calculate and adjust, via stepper motors 48, 50, "the respective angular positions of the wings 24 which together will produce the necessary combination of vertical force (upwardly or downwardly) and lateral force (left or right) required to move the bird 10 to the desired depth and lateral position." *Id.* at 6.

2. Claims 1 and 15

Patent Owner's position with respect to anticipation is focused on the main issue of whether the '636 PCT discloses a "global control system" as recited in both the method claim, claim 1, and the apparatus claim, claim 15,

in accordance with the proper claim construction of that term.[6] PO Resp. 16, Reply 10–11. Patent Owner makes certain arguments that the '636 PCT does not provide the necessary and sufficient disclosures to support anticipation of claims 1 and 15.

As an initial matter, Patent Owner argues that the '967 patent "distinguishes the '636 PCT by contrasting it with the claimed 'global control system.'" PO Resp. 17. In other words, Patent Owner argues the '967 patent itself is proof that the '636 PCT does not disclose a "global control system." This is an accurate statement to an extent. In the Background of the Invention, the '967 patent describes the prior art '636 PCT control system as including a "remote control system" and a "local control system" but does not expressly compare or contrast specifically the prior art "remote control system" to the claimed "global control system." More accurately in context, a reasonable understanding of how the '967 patent distinguishes itself from the '636 PCT is clear from the statement in the specification that

> [w]hile this ['636 PCT] type of system allows for more automatic adjustment of the bird wing angles, the delay period and the relatively long cycle time between position measurements prevents this type of control system from rapidly and efficiently controlling the horizontal position of the bird.

Ex. 1001 2:47–52. The '967 patent differentiates itself by asserting that its system can reduce the delay and cycle times between position measurements

[6] We address claims 1 and 15 together because although claim 1 is a method claim, and claim 15 an apparatus claim, Patent Owner's arguments and analysis relating to "global control system" do not differentiate between the claims. *See* PO Resp. 16–23. Similarly, our analysis in this Decision applies equally to either claim regardless of it being a method or apparatus.

and is thus a faster and more efficient control system "to convert the measured vertical and/or horizontal displacements into corresponding forces to be applied by the birds 18." *Id.* at 6:61–63.

Nonetheless, as noted by Petitioner, "whether the '636 PCT's control system is slower or less efficient than the '967 patent's is irrelevant, because the claims do not contain any limitations that bear on the global control system's speed or efficiency." Reply 13. The proper construction of "global control system," above, does not include such speed or efficiency parameters. Furthermore, mere criticism or distinguishing of a particular embodiment encompassed in the plain meaning of a claim term is not sufficient as clear disavowal of claim scope. *Epistar Corp. v. Int'l Trade Comm'n*, 566 F.3d 1321, 1335 (Fed. Cir. 2009) (holding that even a direct criticism of a particular technique did not rise to the level of clear disavowal). Patent Owner's position here does not persuade us that the '967 patent clearly demarcates between the elements and functions of the '636 PCT's "remote control system" as compared to the claimed "global control system."

Next, Patent Owner argues that "the '636 PCT does not disclose any control beyond a local control system, let alone a global control system." PO Resp. 17, 19 (*citing* Ex. 2042 ¶¶ 131, 177, 181, 183). Although the '636 PCT does not itself expressly recite a "remote control system" it clearly states in reference to Figure 2, that "[t]he lateral position signals are typically derived from a *position determining system* of the kind described in our US Patent No 4,992,990 or our International Patent Application No[.]W09621163." Ex. 1004, 5 (emphasis added). Without referring specifically to the noted '990 patent or the '163 PCT application, the described "position determining system" in the '636 PCT is reasonably

understood in context as distinct, or external, from local control system 26 shown in Figure 2.[7] It is further reasonable, in the context of this description and Figure 2 annotated above, to understand that the inputs shown highlighted in yellow: desired depth 35, desired lateral position 37, and actual lateral position 38 received by local control system 26 are not acquired from the local control system 26 itself, but from the external "positioning determining system." *Id.*

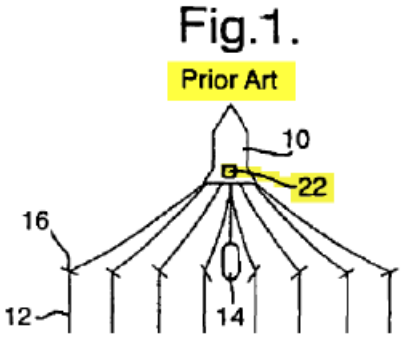
In any event, the '967 patent, in context, clearly describes the '636 PCT control system having a positioning determining system that is an external, "remote control system," i.e. separated or spaced from, a "local control system." Ex. 1001, 2:38–44.[8] Although the '967 patent does not expressly equate the "remote control system" to the "position determining system" or describe the '636 PCT's control system 26 expressly as a "local control system" it is unclear to us on this record given a sensible perspective of the '967 patent's express reference to the '636 PCT and a plain meaning of the word "remote," what else they would be. Accordingly, we are persuaded by the evidence that the '636 PCT discloses an overall distributive control system as described in the '967 patent where

> the desired horizontal positions and the actual horizontal positions are received from a remote control system and are

[7] Patent Owner objects that the reference, U.S. Patent No 4,992,990 to Langeland et al., ("Langeland," or "the '990 patent"), is not properly incorporated by reference. PO Reply 20–23. Because we do not rely on the '990 patent for any part of our Decision, we do not address this argument.
[8] The MERRIAM-WEBSTER ONLINE DICTIONARY provides an ordinary meaning of "remote" as "separated by an interval or space greater than usual." http://www.merriam-webster.com/dictionary/remote (last visited Dec. 1, 2015).

> then used by a local control system within the birds to adjust the wing angles.

Id. at 2:40–44. Further supporting our determination, Figure 1 of the '967 patent, reproduced below in relevant part with annotations, is clearly labeled as "Prior Art" and includes reference number 22 positioned on vessel 10. The '967 patent describes element 22 as a "global control system 22 located on or near the seismic survey vessel 10."



Annotated Figure 1 of the '967 patent, reproduced in relevant part above, illustrates as "Prior Art" vessel 10 towing streamers 12, and having global control system 22 onboard the vessel. Even if we make the assumption that the specific word "global" was unintended as part of the "Prior Art," it is reasonable to understand from the '967 patent, given Figure 1 and the '636 PCT, that a different, external, or "remote" control system was known to be positioned on the towing vessel and in communication with a local control system with the bird. "By filing an application containing Figs. 1 and 2, labeled prior art, ipsissimis verbis, and statements explanatory thereof appellants have conceded what is to be considered as prior art." *Application of Nomiya*, 509 F.2d 566, 571 (C.C.P.A. 1975).

Patent Owner also argues that because the '967 patent and the '636 PCT include the same inventor, Simon H. Bittleston, there is a presumption that "remote" and "global" are different terms that have different meanings.

PO Resp. 17 (citing *Chicago Bd. Options Exch., Inc. v. Int'l Sec. Exch., LLC*, 677 F.3d 1361, 1369 (Fed. Cir. 2012). We agree with Patent Owner that these terms may have different meanings. However, in accordance with our claim construction and our understanding of the '636 PCT as discussed above, the question before us is not whether these two terms have the same meaning, but specifically whether the "remote control system" disclosed in the '636 PCT is "a control system capable of overseeing and affecting the array of streamers and streamer positioning devices." Anticipation does not require the same words be used to equate relevant elements from the prior art with particular limitations of a claim. These elements must be arranged as in the claim under review but this is not an *ipsissimis verbis* test. *In re Bond* 910 F.2d at 832, *see also Structural Rubber Prods. Co. v. Park Rubber Co.*, 749 F.2d 707, 716 (Fed. Cir. 1984)(while holding that a reference must disclose the entirety of the claimed subject matter to anticipate, the Federal Circuit acknowledged that the reference need not disclose the claimed subject matter in the same language used in the claim).

Patent Owner further argues that "[t]he '636 PCT does not describe a total seismic array system, but only the bird." PO Resp. 18. The '636 PCT describes that "[i]n order to perform a 3D marine seismic survey, a plurality of [] streamers are towed at about 5 knots behind a seismic survey vessel," and that "control devices known as 'birds', attached to each streamer at intervals of 200 to 300 metres, are used." Ex. 1004, 1. It is unambiguous from this disclosure that marine seismic streamer systems were known to include a plurality of streamers, e.g. an array, and that each streamer can include a plurality of positioning control devices, e.g. birds spaced 200–300 metres apart along the streamer to control the streamers. It is further clear from the description and Figure 2 that the '636 PCT discloses bird 10 having

wings 24 and a local control system 26 that receives certain signals from a remote control system that "enables the horizontal or lateral position of the streamer 14 to be controlled, and not just its depth." *Id.* at 7.

We find that the '636 PCT discloses sufficiently to a person of ordinary skill in the art that each bird, or streamer positioning device in the seismic survey system can be controlled in depth as well as laterally by a distributed control system according to the remote and local control systems working in conjunction. It is simply not reasonable to read the '636 PCT reference as disclosing merely a single controlled bird or SPD, where the reference expressly discloses that it was known to use multiple SPD's for controlling multiple streamers in a towed seismic streamer array. *See id.* at 1, *see also* Ex. 1002 ¶ 111 ("The '636 PCT discloses that control devices known as 'birds', attached to each streamer at intervals of 200 to 300 meters, are used."). Furthermore, our understanding of the '636 PCT is consistent with the plain meaning of the '967 description, which explicitly describes multiple "birds" in the '636 PCT where "the desired horizontal positions and the actual horizontal positions are received from a remote control system and are then used by a local control system within the birds to adjust the wing angles." Ex. 1001, 2:41–44.

Although the '636 PCT does not state expressly that its control system controls "all" birds, and "all" streamers in the array, one of skill in the art would draw a reasonable inference that where the remote control system controls one bird, it is capable of controlling each of the plurality of birds on each streamer, i.e., the entirety of the array. Petitioner's Declarant, Dr. Evans, has an undergraduate Electrical Engineering Degree, a Masters in Applied Physics, a Ph.D. in Geophysics, and is a professor of Professor of Geophysics in the Department of Petroleum Engineering at Curtin

University in Bentley, Western Australia. Ex. 1002 ¶ 4, 10. Dr. Evans has over 40 years of marine seismic survey experience including designing dozens of seismic surveys and personally participated on board seismic survey vessels in over one hundred seismic surveys. *Id.* ¶ 5. Dr. Evans is also the author of, A HANDBOOK FOR SEISMIC DATA ACQUISITION IN EXPLORATION, published by the Society of Exploration Geophysicists. *Id.* In his analysis of the '636 PCT, Dr. Evans states that "[t]he '636 PCT thus discloses a distributed control system wherein the responsibility for streamer positioning was shared between a remote control system on the vessel and sophisticated local control systems located within *each streamer positioning device*." Ex. 1002 ¶ 70 (emphasis added). Dr. Evans' experience and testimony demonstrates at least a level of ordinary skill in the art of marine seismic survey and data acquisition. We find his testimony persuasive evidence that one of ordinary skill in the art would understand that control systems disclosed in the '636 PCT are capable of controlling multiple birds or SPD's throughout a streamer array. "A reference anticipates a claim if it discloses the claimed invention 'such that a skilled artisan could take its teachings in *combination with his own knowledge of the particular art and be in possession of the invention*.'" *In re Graves*, 69 F.3d 1147, 1152 (Fed. Cir. 1995) (*citing In re LeGrice*, 301 F.2d 929 (CCPA 1962)), *see also Sirona Dental Systems, Inc. v. 3M ESPE AG*, Appeal No. 2011-005021 (BPAI 2011), *aff'd*. mem. (Fed. Cir. 2012). ("A person of ordinary skill in the art would have drawn a reasonable inference from this explicit teaching that while a white ceramic porous body is preferred, JP '841 also discloses non-white ceramic porous bodies.")

Patent Owner next argues that "[h]ow the '967 inventors' ***used*** the '636 PCT control device is not part of the '636 PCT's disclosure, nor is it

prior art." PO Resp. 18. This is not persuasive because it well settled that "[t]he use of patents as references is not limited to what the patentees describe as their own inventions or to the problems with which they are concerned. They are part of the literature of the art, relevant for all they contain." *In re Lemelson*, 397 F.2d 1006, 1009 (CCPA 1968), *see also Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 772 (Fed. Cir. 1983) (What matters is whether all of the limitations of the claim are found in the reference, not whether the reference "teaches" what the subject application teaches.)

Even assuming the appropriate claim construction included "all" streamer positioning devices, which it does not, this would not serve to distinguish the claimed invention from the '636 PCT. Given Dr. Evans' testimony, above, it is axiomatic that one of skill in the art could apply the control of a bird taught in the '636 PCT to any or all birds in the known seismic array system disclosed in the '636 PCT. Where each bird in a seismic array system can be controlled, than the system is capable of controlling each streamer having a bird, in an array consisting of a plurality of streamers. Thus, we determine that the '636 PCT's teachings result in "a control system capable of overseeing and affecting the array of streamers and streamer positioning devices," as the term "global control system" is properly construed.

We have reviewed each of independent claims 1 and 15 in light of the the '636 PCT and find that Petitioner's arguments and evidence presented in the Petition and Reply demonstrate by a preponderance of the evidence that each limitation of independent claims 1 and 15 is disclosed and taught by the '636 PCT.

B. Claims 1 and 15 – Obviousness in view of the '636 PCT

Patent Owner contends that our Decision to Institute did not provide legally sufficient obviousness analysis and "fails to apprise Patent Owner of the specific ground of unpatentability that is the basis for this trial." PO Resp. 23 (*citing In re Zurko*, 258 F.3d 1379, 1386 (Fed. Cir. 2001), *In re Vaidyanathan*, 381 Fed. App'x. 985, 994 (Fed. Cir. 2010), and *Perfect Web Techs., Inc. v. InfoUSA, Inc.*, 587 F.3d 1324, 1330 (Fed. Cir. 2009)). Specifically, Patent Owner argues that "[t]he obviousness case is now a moving target, with Patent Owner left guessing as to what features the Board considers missing from the '636 PCT, but that would be obvious in view of the level of ordinary skill in the art." *Id.* at 24.

It is well settled that novelty under 35 U.S.C. § 102 and nonobviousness under 35 U.S.C. § 103 are separate conditions of patentability. *See Cohesive Tech., Inc. v. Waters Corp.*, 543 F.3d 1351, 1363 (Fed. Cir. 2008). "[I]t does not follow that every technically anticipated invention would also have been obvious." *In re Fracalossi*, 681 F.2d 792, 796 (CCPA 1982) (Miller, J., concurring).

The tests for anticipation and obviousness are different. *Cohesive*, 543 F.3d at 1364. Obviousness generally requires an analysis under the *Graham* factors. *Id.* In the instant case, however, we agree with Petitioner that the '636 PCT, as a standalone reference discloses all of the limitations of claims 1 and 15 including a "global control system" as construed above. In other words, there is no element of claims 1 and 15 missing from the '636 PCT as discussed above in relation to anticipation that necessitates modification, additional rationale, or articulated reasoning. Inasmuch as the '636 PCT is relied upon as the sole reference for both anticipation and obviousness grounds and is directed to the same field of endeavor seeking to

solve the same, or similar problem of controlling birds, i.e. SPD's, in a towed seismic survey array as in the '967 patent, so that "[d]uring the seismic survey, the streamers are intended to remain straight, parallel to each other and equally spaced" (Ex. 1004, 2), this case is particularly appropriate for application of the maxim that anticipation is the epitome of obviousness. *Fracalossi*, 681 F.2d at 794. All that remains is to address secondary considerations.

C. Secondary Considerations

Patent Owner has proffered certain evidence of secondary considerations which we address here. PO Resp. 32–35. The factual inquiries for obviousness include secondary considerations based on evaluation and crediting of objective evidence. *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966). However, to accord substantial weight to objective evidence requires the finding of a nexus between the evidence and the merits of the claimed invention. *In re GPAC Inc.*, 57 F.3d 1573, 1580 (Fed. Cir. 1995); *see also In re Huang*, 100 F.3d 135, 140 (Fed. Cir. 1996) ("success is relevant in the obviousness context only if there is proof that the sales were a direct result of the unique characteristics of the claimed invention."). "Nexus" is a legally and factually sufficient connection between the objective evidence and the claimed invention, such that the objective evidence should be considered in determining nonobviousness. *Demaco CorpF. Von Langsdorff Licensing Ltd.*, 851 F.2d 1387, 1392 (Fed. Cir. 1988). The burden of showing that there is a nexus lies with the patent owner. *Id.*; *see In re Paulsen*, 30 F.3d 1475, 1482 (Fed. Cir. 1994).

Patent Owner contends that certain evidence from the ION lawsuit and from the Declaration of Robin Walker, (Ex. 2077), Patent Owner's former Vice President of Sales and Marketing Director, establishes a long-

felt need and commercial success of the patented inventions. PO Resp. 33. Specifically, Patent Owner argues that "the record evidence during the ION litigation established the long-felt need and commercial success of the patented inventions, as well as initial industry skepticism followed by praise once the inventions were commercialized." *Id.* In support of this argument, Patent Owner refers to a variety of trial testimony exhibits from the ION lawsuit, including Mr. Walker (Ex. 2034), Mr. Tom Scoulios (Ex. 2035), and Mr. Robert Brune (Ex. 2036). *Id.* With respect to the trial testimony of Messrs. Walker, Brune, and Scoulios, Patent Owner merely provides citations to purportedly relevant portions of Exhibits 2034, 2035, 2036, stating only

> (See, e.g. Ex. 2034, Excerpt of Trial Testimony of Robin Walker, at 1623:2-18 (evidencing commercial success of 4D survey systems);Ex. 2035, Excerpt of Trial Testimony of Tom Scoulios, at 290:4-291:16 and 293:10-18 (evidencing long-felt need for lateral steering system and failure of others to solve the problem with tail buoy systems); Ex. 2036, Excerpt of Trial Testimony of Robert Brune, at 3997:19-3999:7 (evidencing long-felt need for the claimed system, failure of others to solve the problem solved by the claimed system, and industry praise for the claimed system).)

Id. Patent Owner argues that these references to trial testimony from district court litigation support a finding of long-felt need but does not explain with any detail why, or how, the referenced testimony, evidences a long-felt need, failure of others, or industry praise. In this regard, we limit our review to evidence actually discussed in Patent Owner's Response. We will not play archeologist with the record to discover evidentiary support for bare attorney argument made in such a response. *See Google Inc. v. ART+COM Innovationpool GmbH*, Case IPR2015-00788, slip. op. at 10 (PTAB Sept. 2, 2015) (Paper 7) (citing 37 C.F.R. § 42.104(b)(5) ("The Board may exclude

or give no weight to the evidence where a party has failed to state its relevance or to identify specific portions of the evidence that support the challenge.")). We decline to consider, moreover, information presented in an Exhibit, but not discussed sufficiently in Patent Owner's Response. *See* PO Resp. 33 (citing Ex. 2035 and 2036, without any discussion of that evidence). Among other reasons, doing so would permit the use of declarations to circumvent our rules relating to page limits. In that regard, our rules prohibit a party from incorporating by reference from one document (such as a supporting declaration) into another document (such as Patent Owner's Response). *See* 37 C.F.R. § 42.6(a)(3).

Patent Owner argues that the Declaration of Robin Walker is firsthand evidence of industry praise "and how WesternGeco's revolutionary lateral steering technology satisfied a longfelt need in the industry (Ex. 2077, ¶¶ 12–37) and ultimately contributed to billions of dollars in revenue (Ex. 2077, ¶¶ 47–51)." PO Resp. 34. Patent Owner, however, does not explain adequately how the Q-Marine product allegedly embodies the challenged claims in the '967 patent. Mr. Walker states specifically that:

> [t]hrough its provision of WesternGeco's patented lateral steering technology, Q-Marine satisfied a significant, previously unmet need in the industry for better quality data and more cost-effective surveys by offering numerous benefits, including those detailed below.

Ex. 2077 ¶ 12. The benefits described in the subsequent paragraphs of Mr. Walker's Declaration are apparently based on lateral steering technology, with the result that "better data quality could be achieved without the risk of costly downtime and damage due to streamer tangling." *Id.* at ¶ 15. The broadest reasonable interpretation of "global positioning device" does not, however, include lateral steering, nor is the limitation of "lateral steering"

recited in either claim 1 or claim 15. It may be that Q-Marine provides a better, faster, more reliable and commercially successful 4D survey, but any commercial success enjoyed by the Q-Marine product is relevant only if the challenged claims are shown to embody those products. Patent Owner's evidence has not made out that critical showing. *See In re DBC*, 545 F.3d 1373, 1384 (Fed. Cir. 2008) (finding no nexus, absent evidence that "the driving force behind [the allegedly successful product's sales] was the claimed combination") (emphasis added); *Ormco Corp. v. Align Technology Inc.*, 463 F.3d 1299, 1311–12 (Fed. 2006) (requiring a "nexus between the claimed invention and the commercial success"); *Huang*, 100 F.3d at 140 (requiring proof that sales were a "direct result of the unique characteristics of the claimed invention"). In the alternative, Patent Owner's evidence of commercial success does not outweigh the strong showing of obviousness made out by Petitioner in view of anticipation by the '636 PCT. *See Sud-Chemie, Inc. v. Multisorb Techs., Inc.*, 554 F.3d 1001, 1009 (Fed. Cir. 2009) ("evidence of unexpected results and other secondary considerations will not necessarily overcome a strong prima facie showing of obviousness"). Patent Owner has not established a sufficient nexus between the claimed features of the '967 patent and the alleged commercial success of the Q-Marine product. Accordingly, the alleged commercial success of the Q-Marine product does not support a conclusion of nonobviousness of the challenged claims in this case.

D. Time Bar under 35 U.S.C. § 315(b)

Patent Owner makes several arguments in support of its position that the PGS IPR is time-barred under 35 U.S.C. § 315(b). We address each of Patent Owner's arguments below. PO Resp. 35–45.

1. Whether ION is an Unnamed RPI

The statute governing *inter partes* review proceedings sets forth certain requirements for a petition for *inter partes* review, including that "the petition identif[y] *all* real parties in interest." 35 U.S.C. § 312(a) (emphasis added); *see also* 37 C.F.R. § 42.8(b)(1) (requirement to identify real parties in interest in mandatory notices). The Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,764 (Aug. 14, 2012) ("Practice Guide") explains that "[w]hether a party who is not a named participant in a given proceeding nonetheless constitutes a 'real party-in-interest' . . . to that proceeding is a highly fact-dependent question." 77 Fed. Reg. at 48,759. The Practice Guide further states that: However, the spirit of that formulation as to IPR and PGR proceedings means that, at a general level, the "real party-in-interest" is the party that desires review of the patent. Thus, the "real party-in-interest" may be the petitioner itself, and/or it may be the party or parties at whose behest the petition has been filed. *Id.* (emphasis added). The determination of whether a party is an RPI is a "highly fact-dependent question" (*id.*), in which the focus is on the party's relationship to the inter partes review pending before the Board, and the degree of control the party can exert over the proceeding. *See Aruze Gaming Macau, Ltd. v. MGT Gaming, Inc.*, Case IPR2014-01288, slip op. at 11 (PTAB Feb. 20, 2015) (Paper 13). "[I]f a nonparty can influence a petitioner's actions in a proceeding before the Board, to the degree that would be expected from a formal copetitioner, that nonparty should be considered an RPI to the proceeding." *Id.* at 12.

Patent Owner asserts in its Response that ION is a real party-in-interest under the factors set forth in our Practice Guidelines because (a) Petitioner invoked ION's indemnity obligations by notifying ION that

Petitioner expected ION to fulfill its obligations and pay for the lawsuit and this IPR proceeding; (b) ION was obligated to pay for this IPR and was instrumental in developing invalidity theories, thus, giving ION an "interest, opportunity to control, and active control over the Petition[;]" and (c) Petitioner is ION's proxy due to ION's obligation under the indemnification agreement. PO Resp. 39– 40.

Patent Owner's main contention for indemnification, and thus control by ION, focuses on an indemnification provision in the 2008 Master Purchase Agreement ("Agreement" Ex. 2069) between PGSAS and Concept Systems Limited ("Concept"), an ION subsidiary. *Id.* at 35. The Agreement is considered protective order material in this proceeding. *See* Ex. 2069.

Patent Owner argues that the indemnification provision "reasonably includes defending against an infringement lawsuit, proving the invalidity of a patent in a review proceeding, and obtaining a license." PO Resp. 35–36. Patent Owner contends that Petitioner invoked this indemnification in its letter of November 13, 2012 to ION citing the above indemnification provision and stating "[i]f it turns out that ION or its affiliates did not have the proper patent licenses for the DigiFIN equipment and related components and services it sold us, we expect that ION will provide us with appropriate remedies." Ex. 2027. Patent Owner thus concludes that "ION thus has control, or at least the opportunity to control, the selection and implementation of a remedy that includes filing a petition for review." PO Resp. 37.

As an initial matter, nowhere in the asserted provision of the Agreement does it state that Concept (ION) has the right, or obligation, to defend a lawsuit or control litigation, a lawsuit, or undertake any type of invalidity proceedings such as the present IPR. We agree with Patent Owner

that a reasonable interpretation of the indemnification provision could include obtaining a license. *Id.* at 36. There is, however, no express language or evidence that Patent Owner points to that persuades us to interpret the language of the indemnification provision as requiring ION to "defend a lawsuit," and, thus, extend the provision to include a specific obligation to defend, or pay for, a lawsuit filed against Petitioner or to undertake an IPR proceeding. Petitioner's letter of November 13, 2012 to ION, does not actually "invoke" any certain part of the Agreement or refer to any necessity for ION to step in and defend a lawsuit, the letter refers only to "appropriate remedies." *See* Ex. 2027. In fact, a previous email sent July 6, 2012 from Phillip Shotts of ION to Kevin Hart at PGS, summarizing ION's Product Assurance Pledge, also does not specify or imply any obligation on the part of ION to defend PGS from a lawsuit, reimburse or pay for a lawsuit, or file an invalidity proceeding. *See* Ex. 2022.

Based on the record before us ION does not have an obligation to step in and defend Petitioner against a lawsuit or to otherwise pay for the defense of a lawsuit and advance Petitioner as ION's proxy. The mere existence of an indemnification agreement does not establish that the indemnitor has the opportunity to control an *inter partes* review. "The mere existence of an indemnification agreement [however] does not establish that the indemnitor has the opportunity to control an inter partes review." *Nissan North America, Inc. v. Diamond Coating Tech., LLC*, Case IPR2014- 01546, slip. op. at 7 (PTAB Apr. 21, 2015) (determining that the existence of an indemnification agreement was not sufficient to establish that the unnamed parties were real parties-in-interest to the *inter partes* review proceeding)

Patent Owner argues further that the nature of Petitioner and ION's close relationship shows that ION is controlling, or has the ability to control

this IPR as an RPI. PO Resp. 37–39. Patent Owner argues specifically that "Petitioner and ION have coordinated efforts across multiple forums to promote their joint interests regarding the '967 patent," and that a common interest privilege was asserted by Petitioner over communications between ION and Petitioner. *Id.* at 37–38. There is nothing surreptitious about separate entities, as either third parties, or separate parties to a legal action, proclaiming shared interests to protect communications that are relevant to advance the interests of the entities possessing the common interest. *See In re Regents of Univ. of California*, 101 F.3d 1386, 1389 (Fed. Cir. 1996) ("The protection of communications among clients and attorneys 'allied in a common legal cause' has long been recognized.") (quoting *In re Grand Jury Subpoena Duces Tecum*, 406 F.Supp. 381, 386 (S.D.N.Y.1975)). The fact that Petitioner and ION, have a desire, and common interest, in invalidating the '967 patent and other WesternGeco patents, and have collaborated together, and invoked a common interest privilege with respect to sharing potentially invalidating prior art references, does not persuade us that ION has the ability to control the instant Petition or is directing or funding the present proceeding.

With respect to the ability to control, the Board has issued decisions determining based on evidence of control that a non-party entity is a real party-in-interest. *See Zoll Lifecor Corp. v. Philips Elecs. North America Corp.*, Case IPR2013-00609 (PTAB Mar. 20, 2014) (Paper 15) (the "Zoll Decision"). In the Zoll Decision, the Board was persuaded that an unnamed party to the IPR, Zoll Medical, exercised consistent control over Zoll Lifecore for over six years, including control of the *inter partes* review. *Id.* at 11. Specific evidence of control included Zoll Lifecor's acknowledgment that Zoll Medical controlled 100% of Zoll Lifecor and approved Zoll

Lifecor's corporate budget and plans. *Id.* Other evidence of control included the fact that common counsel for Zoll Medical and Zoll Lifecor would not state affirmatively that counsel did not provide input into preparation of the IPRs. *Id.* at 11–12. Additional evidence showed that only Zoll Medical's management team attended court-ordered mediation in the underlying district court litigation filed against Zoll Lifecor. *Id.* at 12.

We have no such evidence in this proceeding. ION and Petitioner are not related corporate entities. The evidence of record here shows that Petitioner and ION preliminarily discussed potential remedies relating to the product itself, not indemnification from litigation. Exs. 2022, 2027. As discussed above, absent specific facts evidencing the contractual obligations of the parties, we are not apprised of any evidence from the Agreement indicative of control, or potential to control, this *inter partes* proceeding by ION. Furthermore, based on the record before us, Patent Owner has not established that ION has the ability or opportunity to control the present proceeding to the degree that would be expected from a formal copetitioner. As such, we are not persuaded that ION is an RPI to this proceeding, and the fact that the PGS Petition does not identify ION does not prevent the Board from considering Petitioner's grounds of unpatentability.

2. Additional Discovery

Patent Owner next argues that the Board prejudicially denied Patent Owner additional discovery on the RPI issue after "Petitioner failed to forthrightly answer Interrogatory No. 5." PO Resp. 41–42 (*citing* Ex. 2018, at 14). Our review of Exhibit 2018 indicates that contrary to Patent Owner's assertion, Petitioner unambiguously affirmed that Petitioner had made no claims or demands to ION for indemnity with respect to the '967 patent. Patent Owner also asserts that the Agreement, Exhibit 2069 was not

available to the Board prior to our Decision to Institute. *Id.* at 42. As discussed above Exhibit 2069 is now available, and having been considered, for the reasons set forth above does not alter our underlying determination above that ION is not a real party-in-interest.

3. Multi Klient

Patent Owner argues that a new, and allegedly wholly owned subsidiary of Petitioner, Multi Klient Invest AS ("Multi Klient"), has been revealed in the district court litigation as an "interest[ed] parties concerning the subject matter of the '967 patent." PO Resp. 42–43 (*citing* Ex. 2076). The fact that Multi Klient may be related to Petitioner and is indicated as having a financial interest in the outcome of litigation, however, does not by itself indicate that Multi Klient has any ability to control the present IPR proceeding. *See* Ex. 2076 (referring to Paragraph 2 of Order for Pretrial Conference as determinative of "financially interested" defendants.) Accordingly, we are not persuaded on these facts that Multi Klient is an RPI to this proceeding and deny Patent Owner's request for additional discovery into this matter. PO Resp. 44.

4. Service

Under 35 U.S.C. § 315(b), a party may not file a petition for *inter partes* review if the party had been served with a complaint alleging infringement more than one year previously. Patent Owner argues that Petitioner was subpoenaed and "appeared" in the ION litigation prior to being "served" with a complaint alleging infringement of the '967 patent on March 14, 2011, and, therefore, "Petitioner's one year clock to file a petition started ticking at this time." PO Resp. 44.

A review of the litigation history establishes that on June 12, 2009, Patent Owner filed, via the court's electronic case filing procedure ("ECF"),

a complaint initiating the ION lawsuit, alleging infringement of the '967 patent against ION based on ION's "DigiFIN" and other products. Ex. 2007. Patent Owner also filed a similar complaint against a company called Fugro, a customer of ION, which was consolidated with the ION lawsuit. Ex. 2037. On December 8, 2009, remarking that Petitioner may have been involved in the design and testing of the ION products, Patent Owner provided Petitioner via email with a copy of the complaint against ION. Ex. 2008. Patent Owner subpoenaed Petitioner on January 22, 2010 to produce documents and evidence relating *inter alia* to Petitioner's use and operation of ION's DigiFIN product. Ex. 2009. In response to the subpoena, Petitioner appeared in the ION lawsuit through its counsel, Heim, Payne & Chorush. Ex. 2011. Subsequently, on March 14, 2011, Patent Owner filed an amended complaint in the ION lawsuit via the court's electronic filing system ("ECF"), naming ION and another company, Fugro, but not Petitioner. Ex. 2012. Patent Owner apparently believes that because Petitioner's counsel, as an ECF notice recipient in the ION lawsuit, received a copy of the amended complaint against Fugro and ION on March 14, 2011, Petitioner was therefore "served" in accordance with 35 U.S.C. § 315(b) the same day. *Id.* at 7. Thus, it is Patent Owner's position that because Petitioner was "served" with the complaint more than one year before filing, the Petition here is now time-barred

The Board has dealt with similar arguments regarding the statutory interpretation of 35 U.S.C. § 315(b) before in *Motorola Mobility LLC v. Arnouse*, Case IPR2013-00010 (PTAB Jan. 30, 2013) (Paper 20) (the "*Motorola* decision"). For reasons similar to those set forth in the *Motorola* decision, we do not adopt the statutory construction that mere receipt of a complaint, via email or even ECF, initiates the one-year time period. We

specifically agree with the *Motorola* Panel's review and interpretation of the legislative history and intent of 35 U.S.C. § 315(b) in that, "[w]e do not believe that the Congress intended to have the time period start before a petitioner is officially a defendant in a law suit." *Id.* at 5.

Patent Owner specifically argued that the present proceeding differs from Motorola because in the ION lawsuit "Petitioner was served with process and formally appeared," (emphasis omitted) and was thus "'brought under a court's authority, by formal process' before being served with the amended complaint." Prelim. Resp. 7–8 n.1 (citing *Murphy Bros., Inc. v. Michetti Pipe Stringing, Inc.* 526 U.S. 344, 347 (1999)). Despite this factual difference from *Motorola*, Petitioner was not, and never has been, a party defendant in the ION lawsuit.

Petitioner, in the ION lawsuit, was served under Fed. R. Civ. P. 45, with a third party subpoena, to produce documents and things relating to the ION lawsuit. *See* Ex. 2009. Although a person, or entity, may have been served properly with a subpoena, and may fall under a court's authority for purposes of producing appropriate documents and things not protected by a privilege or protection, Fed. R. Civ. P. 45(c)–(e) does not express, or imply, that a person subject to the subpoena is a "defendant" to a lawsuit. Indeed, Fed. R. Civ. P. 45 specifically differentiates between a "person" served with the subpoena, and "a party" to the lawsuit. *See* Fed. R. Civ. P. 45 (d)(2)(B) ("A person commanded to produce documents or tangible things or to permit inspection may serve on the party or attorney designated in the subpoena a written objection to inspecting, copying, testing or sampling any or all of the materials."). We are aware of no case law, precedent, statutory interpretation or authority, nor has Patent Owner cited to any, indicating that serving a person with a subpoena, and subjecting them to the authority of the

court in enforcing such subpoena under Fed. R. Civ. P. 45(e), provides sufficient legal process to make such person a defendant to a lawsuit.

Thus, Petitioner was not a defendant in the ION lawsuit. Concomitant with our colleagues' *Motorola* decision, we interpret 35 U.S.C. § 315(b) as requiring service upon a defendant to the lawsuit. Petitioner was not a defendant; thus, it was never "served with a complaint" in the ION lawsuit as required by 35 U.S.C. § 315(b).[9] Accordingly, Petitioner is not time-barred from filing its Petition under 35 U.S.C. § 315(b).

IV. MOTION TO EXCLUDE EVIDENCE

Petitioner filed a Motion to Exclude Evidence seeking to exclude portions of the testimony of Robin Walker (Ex. 2077) and numerous other exhibits submitted by Patent Owner. Paper 85. The party moving to exclude evidence bears the burden of proving that it is entitled to the relief requested—namely, that the material sought to be excluded is inadmissible under the Federal Rules of Evidence. *See* 37 C.F.R. §§ 42.20(c), 42.62(a). Even without excluding this evidence, we have determined that Petitioner has established, based on a preponderance of the evidence, the unpatentability of claims 1 and 15 of the '967 patent. Furthermore, from Petitioner's listed Exhibits on page 1 of its Motion to Exclude, our Decision includes only references to Exhibits 2007, 2012, 2034–36, and 2077. Exhibits 2007 and 2012 are referred to merely for background procedural

[9] Patent Owner's argument that S.D. Texas L.R. 5-1 "comports" (PO Resp. 44) with the proper interpretation of service under §315(b) is not persuasive as to the intent of Congress with respect to §315(b). *See* 157 Cong. Rec. S5429 (daily ed. Sept. 8, 2011) (statement of Senator Kyl) ("it is important that the section 315(b) deadline afford defendants a reasonable opportunity to identify and understand the patent claims that are relevant to the litigation").

dates, Exhibits 2034–2036 are identified as not being considered, and for Exhibit 2077, Petitioner's hearsay arguments do not pertain to the particular paragraphs of Mr. Walker's testimony that we substantively considered. *See* Section III.C.

For these reasons, we deny Petitioner's Motion to Exclude.

V. CONCLUSION

We conclude that Petitioner has demonstrated by a preponderance of the evidence that (1) claims 1 and 15 of the '967 patent are anticipated by the '636 PCT, and (2) claims 1 and 15 of the '967 patent are unpatentable as obvious over the '636 PCT.

This is a Final Written Decision of the Board under 35 U.S.C. § 318(a). Parties to the proceeding seeking judicial review of this decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

VI. ORDER

For the reasons given, it is

ORDERED that claims 1 and 15 of U.S. Patent No. 7,162,967 are determined by a preponderance of the evidence to be unpatentable;

FURTHER ORDERED that Patent Owner's request for additional discovery with respect to Multi Klient AS is denied;

FURTHER ORDERED that Petitioner's Motion to Exclude is denied; and

FURTHER ORDERED that because this is a Final Written Decision, parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

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