

No. 2020-1237

**In the
United States Court of Appeals
for the Federal Circuit**

SEABED GEOSOLUTIONS (US) INC.,

Appellant,

v.

MAGSEIS FF LLC,

Appellee.

APPEAL FROM THE UNITED STATES PATENT AND TRADEMARK OFFICE,
PATENT TRIAL AND APPEAL BOARD IN IPR No. IPR2018-00960

**COMBINED PETITION FOR PANEL REHEARING AND REHEARING
EN BANC OF APPELLEE MAGSEIS FF LLC**

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September 10, 2021

FORM 9. Certificate of Interest

Form 9 (p. 1)
July 2020

**UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT**

CERTIFICATE OF INTEREST

Case Number 2020-1237

Short Case Caption Seabed Geosolutions (US) Inc. v. Magseis FF LLC

Filing Party/Entity Magseis FF LLC

Instructions: Complete each section of the form. In answering items 2 and 3, be specific as to which represented entities the answers apply; lack of specificity may result in non-compliance. **Please enter only one item per box; attach additional pages as needed and check the relevant box.** Counsel must immediately file an amended Certificate of Interest if information changes. Fed. Cir. R. 47.4(b).

I certify the following information and any attached sheets are accurate and complete to the best of my knowledge.

Date: 09/10/2021

Signature: /s/Jeffrey N. Costakos

Name: Jeffrey N. Costakos

FORM 9. Certificate of Interest

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1. Represented Entities. Fed. Cir. R. 47.4(a)(1).	2. Real Party in Interest. Fed. Cir. R. 47.4(a)(2).	3. Parent Corporations and Stockholders. Fed. Cir. R. 47.4(a)(3).
Provide the full names of all entities represented by undersigned counsel in this case.	Provide the full names of all real parties in interest for the entities. Do not list the real parties if they are the same as the entities. <input checked="" type="checkbox"/> None/Not Applicable	Provide the full names of all parent corporations for the entities and all publicly held companies that own 10% or more stock in the entities. <input type="checkbox"/> None/Not Applicable
Magseis FF LLC		Magseis FF AS, Magseis Fairfield ASA

☐ Additional pages attached

FORM 9. Certificate of Interest

Form 9 (p. 3)
July 2020

4. Legal Representatives. List all law firms, partners, and associates that (a) appeared for the entities in the originating court or agency or (b) are expected to appear in this court for the entities. Do not include those who have already entered an appearance in this court. Fed. Cir. R. 47.4(a)(4).

☐ None/Not Applicable

☐ Additional pages attached

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5. Related Cases. Provide the case titles and numbers of any case known to be pending in this court or any other court or agency that will directly affect or be directly affected by this court's decision in the pending appeal. Do not include the originating case number(s) for this case. Fed. Cir. R. 47.4(a)(5). See also Fed. Cir. R. 47.5(b).

☐ None/Not Applicable

☐ Additional pages attached

Magseis FF LLC v. Seabed Geosolutions (US) Inc., et al., 4:17-cv-01458 (S.D. Tex.)		

6. Organizational Victims and Bankruptcy Cases. Provide any information required under Fed. R. App. P. 26.1(b) (organizational victims in criminal cases) and 26.1(c) (bankruptcy case debtors and trustees). Fed. Cir. R. 47.4(a)(6).

☒ None/Not Applicable

☐ Additional pages attached

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STATEMENT OF COUNSEL UNDER FED. CIR. R. 35(B)(2)

Based on my professional judgment, and specifically with regard to Section II below requesting rehearing *en banc*, I believe the panel decision is contrary to the following decisions of the Supreme Court of the United States as well as the following precedent of this Court:

- *Teva Pharm. v. Sandoz, Inc.*, 574 U.S. 318 (2015)
- *Markman v. Westview Instruments, Inc.*, 517 U.S. 370 (1996)
- *Lighting Ballast Control LLC v. Philips Elecs. N. Am. Corp.*, 790 F.3d 1329 (Fed. Cir. 2015)

Additionally, based on my professional judgment, I believe this appeal requires an answer to one or more precedent setting question of exceptional importance, namely:

- Whether this Court may ignore the corroborated expert testimony of both sides' expert witnesses with respect to the particular meaning of a term of art in a particular field where the specification is silent with respect to said term.

/s/ Jeffrey N. Costakos

**JEFFREY N.
COSTAKOS**

INTRODUCTION

In the detailed final written decision by the U.S. Patent Trial and Appeal Board, the Board concluded that any reasonable construction of the term “fixed” excluded what are known as geophones mounted on a “gimbal” (often referred to as “gimballed” geophones). In doing so, the Board considered the intrinsic record—including the fact that the specification was silent with regard to “fixed.” Faced with this silence, the Board turned to extrinsic evidence, which included the expert testimony of both Seabed’s and Magseis’s experts, and found that **both** experts testimony supported an understanding of the term in the art that excluded gimbals. This result should not have been surprising even without reliance on expert testimony since the ordinary meaning of the term “fixed” suggests something that (unlike gimbals) is secured in place and does not move.

Magseis’s Combined Petition for Panel Rehearing and Rehearing En Banc is divided into two sections. First, Magseis requests panel rehearing with regard to what the ordinary and customary meaning of the term “fixed” is. The panel concluded that “fixed” means “attached or fastened,” and cited dictionary definitions of record in support of that conclusion, while not recognizing that those very same definitions also stress that the use of the term “fixed” means securing something in place such that it is not movable—differentiating “fixed” from terms like “mounted” or “attached.” Indeed, Magseis’s proposed formal construction of

the term before the Board was consistent with the ordinary meaning in light of these cited definitions: “at least one internal geophone that does not move.”

Second, and to the extent panel rehearing is not granted on the above request, Magseis further requests both panel rehearing and rehearing *en banc* with regard to whether the panel may completely disregard the corroborated testimony of both sides’ experts regarding the specific understanding and usage of the term “fixed” in the art, particularly where—as here—the specification is silent. The Supreme Court and this Court have long recognized the role expert testimony can play in defining terms that may have a particular understanding in a given field of art. Yet, by concluding that the specification’s silence unambiguously leads to a construction of the term “fixed” as “mounted or fastened” the panel effectively deletes from the claim a term with a very specific and well-recognized understanding in the art. This conclusion contradicts the repeated guidance of this Court, as well as that of the Supreme Court, that extrinsic evidence, including expert testimony, has a role to play in construing terms of art—and that findings of fact on such considerations should be subject to deferential review.

I. THE COURT SHOULD GRANT PANEL REHEARING WITH RESPECT TO THE ORDINARY MEANING OF THE TERM “FIXED” IN LIGHT OF THE RECORD BEFORE IT

In discussing the ordinary meaning of the term “fixed” as “attached or fastened” the panel’s decision cited to two dictionary definitions of record:

We conclude, based upon the intrinsic evidence, that the word fixed here carried its ordinary meaning, i.e., attached or fastened. *See* J.A. 2435-36.

Op. at 4.

These dictionary definitions, however, reflect that the ordinary meaning of “fixed” requires securing something in place such that it is not movable and stationary. (*See* Appx2435, Collins English Dictionary (defining “fixed” as “1. attached or placed **so as to be immovable**” (emphasis added)) and Appx2436 (defining “fixed” as “a : **securely** placed or fastened : **STATIONARY**”) (emphasis added).) Indeed, the formal construction that Magseis advanced before the Board was based on this ordinary meaning, proposing that the term “at least one geophone internally fixed within” be construed as “at least one internal geophone that does not move (e.g. is not gimbaled).” *See* Appx375. The Board declined to adopt a formal construction of the term and instead jumped to the conclusion that the term “fixed” excluded gimbals, but the ordinary and customary meaning of the term should reflect that any construction of “fixed” requires that the geophone **not move**.

The fact that Magseis **further** argued that the corroborated expert testimony of both sides’ expert witnesses established that “fixed” was a term of art that ruled out gimbals, consistent with its proposed construction, does not change the ordinary meaning of “fixed,” even were one to ignore the extrinsic evidence.

The panel also found that its construction was consistent with the prosecution history, specifically noting how applicants had cited certain portions of the specification in order to comply with 37 C.F.R. § 1.173(c). *See Op.* at 7. As an initial matter, all of the exemplary citations to the prosecution history are **also** consistent with an ordinary and customary understanding of the term “fixed” that reflects that the geophone does not move, and surely none rises to the level a disclaimer of an ordinary and customary meaning that excludes movement. Nor is *Magseis* aware of any instance in which this Court has endorsed efforts to comply with 37 C.F.R. § 1.173 (which is at base concerned with written description support) as forming the basis for disclaimer of a claim term’s ordinary and customary meaning.

With regard to the citation under 37 C.F.R. § 1.173 the panel takes the position that “the applicant implicitly equated the claim term ‘internally fixed within’ with ‘disposed, and electrically connected, within.’” *Op.* at 7. However, this is not accurate. The filing in compliance with 37 C.F.R. § 1.173 specifically recited:

Support for the subject matter of new claim 22 is found, for example, in the Abstract, Figures 1 and 2; column 3, line 66 to column 4, line 12; column 6, lines 14 to 58; column 8, lines 40 to 46; and column 9, lines 15 to 25. The application also convey with more than reasonable clarity to one of skill in the art that, in at least one embodiment, the seismic data collection unit includes at least one

geophone, a clock, a power source, and a seismic data recorder disposed, and electrically connected, within the internal compartment (*see, e.g.*, Figure 1, and column 6, lines 19 to 21).

Appx710. The identification of written description support for the claims here is recited as **exemplary** and never actually discusses the claim language “internally fixed within.” It goes too far to conclude that, from this, either the examiner or the applicant intended to disclaim the ordinary and customary meaning of “fixed”—which excludes movement—from the claims.

What is more, these prosecution history arguments that Seabed undisputedly raised for the first time on appeal were waived. The panel cites *Interactive Gift Express, Inc. v. CompuServe Inc.*, 256 F.3d 1323, 1346 (Fed. Cir. 2001) for the proposition that citation to portions of the intrinsic evidence not raised below can be raised on appeal. However, *Interactive Gift* concerned citations to the specification (rather than citations to the prosecution history of the patent-at-issue and other related patents), and specifically was relying on this court’s guidance with respect to waiver as found in *Finnigan Corp. v. Int’l Trade Comm’n*, 180 F.3d 1354 (Fed. Cir. 1999). *See Interactive Gift*, 256 F.3d at 1346-47. In doing so, it described what considerations should be made in assessing whether certain positions may be waived on appeal:

As *Finnigan* indicates, the concerns in waiver relate to issues such as: (1) whether the claim construction and arguments on appeal are consistent with those tendered at

trial; (2) whether there is a **clear presentation** of the issue to be resolved; (3) whether there was an **adequate opportunity for response** and **evidentiary development by the opposing party at trial**; and (4) whether there is a record reviewable by the appellate court that is **properly crystallized** around and responsive to the asserted argument. It is evident that a party's proffer of additional support from a specification, for an existing claim construction, will not violate these concerns.

Id. at 1347 (emphasis added). The considerations of *Finnigan* favor finding waiver. Most of the arguments concerned characterizations of prior art references that were never of record below and therefore are not part of a “crystallized record” that is appropriate for review on appeal, nor could Magseis have had an “adequate opportunity for response,” nor the ability to develop evidence in response. At the very least, Magseis would have incorporated the prior art references discussed during prosecution into the record so that the Board could properly consider them had they been raised. Similarly, Seabed’s argument with respect to 35 U.S.C. § 1.173 raised issues with respect to the import of that regulation and an applicant’s efforts to comply with it that were never addressed, and could not have been before the Board.

These prosecution history arguments were also waived because review of the Board’s decision is limited to reviewing the decisions the Board actually made and “is confined to the ‘four corners’ of that record[,] . . . it is important that the applicant challenging a decision not be permitted to raise arguments on appeal that

were not presented to the [PTAB].” *Redline Detection, LLC v. Star Envirotech, Inc.*, 811 F.3d 435 (Fed. Cir. 2015) (quoting *In re Watts*, 354 F.3d 1362, 1367 (Fed. Cir. 2004); *see also In re Nuvasive, Inc.*, 842 F.3d 1376, 1380 (also citing *Watts*)).

Having applied its own procedures, the Board would have likely determined that Seabed’s new prosecution history arguments were waived had Seabed attempted to raise them for the first time at oral argument. *See* Office Patent Trial Practice Guide, 77 Fed. Reg. 48, 756, 48,768 (Aug. 14, 2012) (“A party may rely upon evidence that has been previously submitted in the proceeding and may only present arguments relied upon in the papers previously submitted. No new evidence or arguments may be presented at the oral argument.”). This Court has endorsed the Board’s procedures, its ability to manage its docket, and its ability to determine that raising evidence and arguments at oral hearing that were not in the papers to be waived. *See Dell, Inc. v. Acceleron, LLC*, 884 F.3d 1364, 1369 (Fed. Cir. 2018). Had the Board exercised this discretion, this Court would review that decision for an abuse of discretion. *See Intelligent Bio-Systems, Inc. v. Illumina Cambridge, Ltd.*, 821 F.3d 1359, 1367 (Fed. Cir. 2016). Accordingly, it is fundamentally unfair for Seabed to maintain arguments on appeal premised on citations to the record that would have been excluded by the Board had they been raised below.

II. THE COURT SHOULD GRANT PANEL REHEARING OR EN BANC REVIEW WITH RESPECT TO THE PANEL’S DECISION TO IGNORE THE CORROBORATED TESTIMONY OF BOTH SIDES’ EXPERT WITNESSES WITH RESPECT TO THE PARTICULAR MEANING OF THE TERM “FIXED” IN THE ART.

A. THE BOARD APPROPRIATELY RELIED ON THE CORROBORATED EXPERT TESTIMONY OF BOTH EXPERTS IN UNDERSTANDING THE USE OF THE TERM “FIXED” IN THE RELEVANT ART

In construing the language “at least one geophone internally fixed within,” the Board began by considering the specification and prosecution history, and concluded that neither was dispositive on the meaning of the terms. *See* Appx14-15. After this careful consideration of the intrinsic record, the Board considered the overwhelming extrinsic evidence in support of the fact that use of the term “fixed,” in the context of the claims and the relevant art, referred to a geophone that was not gimbaled. *See* Appx10-19. The extrinsic evidence included not only the testimony of Mageis’s expert, but also that of Seabed’s own expert. The testimony of both experts established that it would have been unreasonable for a person of ordinary skill in the art to have understood gimbaled geophones to be covered by the claims. Appx15-19.

B. THE SUPREME COURT AND THIS COURT HAVE LONG RECOGNIZED THE ROLE EXPERT TESTIMONY PLAYS IN UNDERSTANDING TERMS OF ART

The Supreme Court, and this Court, have long recognized the role extrinsic evidence, and in particular expert testimony, should play in defining terms with a

specific meaning and usage in a field of art. *See Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 574 U.S. 318, 331 (2015) (“In some cases, however, the district court will need to look beyond the patent’s intrinsic evidence and to consult extrinsic evidence in order to understand, for example, the background science or the meaning of a term in the relevant art during the relevant time period.”) The Supreme Court in *Teva* went on to clarify that, in the context of claim construction, subsidiary factual findings should not be subject to review by the Federal Circuit *de novo*, but instead subject to deferential review for clear error. *See id.* at 322.

This recognition of the role of expert testimony in construing terms of art is not new, and has been recognized by the Supreme Court for more than 150 years. *See id.* at 331-332 (quoting *Seymour v. Osborne*, 78 U.S. 516 (1870) (A patent may be “so interspersed with technical terms and terms of art that the testimony of scientific witnesses is indispensable to a correct understanding of its meaning. Both parties in such a case would have a right to examine such witnesses, and it would undoubtedly be error in the court to reject the testimony. . . .”) (emphasis added)).

The Supreme Court’s decision in *Markman v. Westview Instruments, Inc.*, 517 U.S. 370 (1996) also recognized the important role of expert testimony in defining terms of art:

As it cannot be expected, however, that judges will always possess the requisite

knowledge of the meaning of the terms of art or science used in letters patent, it often becomes necessary that they should avail themselves of the light furnished by experts relevant to the significance of such words and phrases.

Id. at 387 (positively quoting A. Walker, Patent Laws § 75, p. 68 (3d. ed. 1895)). The Supreme Court’s decision in *Nautilus, Inc. v. BioSig Instruments, Inc.*, 572 U.S. 898 (2014) also reaffirmed this understanding, describing how “claim construction calls for ‘the necessarily sophisticated analysis of the whole document,’ and may turn on evaluations of expert testimony.” *Id.* at 911 (quoting *Markman*, 517 U.S. at 389).

This Court has likewise long recognized the role expert testimony can play in helping to define terms in particular fields of art. *See Phillips v. AWH Corp*, 415 F.3d 1303, 1317 (Fed. Cir. 2005) (“[W]e have also authorized district courts to rely on extrinsic evidence, which ‘consist of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises.’”); *Apple, Inc. v. Andrea Elecs. Corp.*, 949 F.3d 697, 708 (Fed. Cir. 2020) (“We have regularly held that extrinsic evidence in the form of expert testimony can ‘provide background on the technology at issue’ and ‘ensure that the court’s understanding of the technical aspects of the patent is consistent with that of a person of skill in the art, or to establish that a particular term in the patent or the prior art has a particular meaning in the pertinent field.’”).

This Court has also recognized that, even when applying the broadest reasonable interpretation standard, “it is the ‘use of the words in the context of the written description and customarily by those of skill in the relevant art that accurately reflects both the “ordinary” and “customary” meaning of the terms in the claims.’” *Trivascular, Inc. v. Samuels*, 812 F.3d 1056, 1062 (Fed. Cir. 2016) (quoting *Ferguson Beauregard/Logic Controls, Div. of Dover Res., Inc. v. Mega Sys., LLC*, 350 F.3d 1327, 1338 (Fed. Cir. 2003)).

C. THE PANEL’S APPROACH TO CONSTRUING THE TERM “FIXED” IS INCONSISTENT WITH THE PRECEDENTS OF THE SUPREME COURT AND THIS COURT.

Despite the Supreme Court, and this Court’s, history and guidance with regard to how expert testimony should weigh on interpreting terms of art, the panel’s decision in this appeal would render it practically impossible for a factfinder to consider expert testimony as to the meaning and usage of a term in a given field of art. Instead of acknowledging, and deferring to, the Board’s fact findings on how “fixed” had a specific and well-understood meaning in the field of art, the panel instead relied on the silence of the specification to craft a construction out of whole cloth that equates the term “fixed” with the word “mounted”—effectively deleting “fixed” from the claim. Op. at 4, 7.

The panel decision notes that applicants could have explicitly distinguished between gimbaled and non-gimbaled geophones in the specification and did not.

See Op. at 5-6. However, by that logic applicants also presumably knew how to distinguish between “mounted” and “fixed,” and actually **did** distinguish them by electing to use “fixed” in the claims—a term of art with a very specific meaning in the field of seismic data exploration which, as explained by the corroborated testimony of both sides’ experts, would exclude gimbals.

A problem with the panel’s approach is that it excludes consideration of expert testimony on the specific meaning of a term in practically all situations. If the intrinsic record clearly provides support for a particular construction, then it is well-established that such a construction controls and expert testimony cannot override it. *See Profectus Tech. LLC v. Huawei Techs. Co.*, 823 F.3d 1375, 1380 (Fed. Cir. 2016) (“Extrinsic evidence may not be used ‘to contradict claim meaning that is unambiguous in light of the intrinsic evidence.’”) (quoting *Phillips*, 415 F.3d at 14324). That leaves situations where the intrinsic record is unclear or silent. The panel’s extreme approach would insist that a factfinder first exhaust all possible avenues to craft a construction from silence while putting on blinders to the extrinsic evidence that demonstrates that a term has a particular and unique understanding in the art. Not only is that inconsistent with the Supreme Court’s guidance with regard to how expert testimony should be considered when evaluating terms of art, it is also inconsistent with the past practice of this Court.

See Lighting Ballast Control LLC v. Philips Elecs. N. Am. Corp., 790 F.3d 1329 (Fed. Cir. 2015),

In *Lighting Ballast*, the principal claim construction dispute involved the term “voltage source means,” which the specification did not define. Indeed, the lower court had originally found the claim at issue invalid as indefinite for lack of structure but went on to reconsider this decision after taking into account unrebutted expert testimony on its proper construction and on what a person of ordinary skill would have understood the specification and claims to have disclosed. *See Lighting Ballast*, 790 F.3d at 1336 (noting how the district court initially “looked for a disclosed structure in the specification to correspond to the voltage source function, but found none.”).

Specifically, and as explained by this Court, the district court relied on expert testimony in the following manner:

[T]he district court determined that “while the ‘voltage source means’ term does not denote a specific structure, it is nevertheless understood by persons of skill in the lighting ballast design art to connote a class of structure, named a rectifier, or structure to rectify the AC power line into a DC voltage for the DC input terminals.” The district court went on to note that the language following “voltage source means” in the claim—“providing a constant or variable magnitude DC voltage between the DC input terminals”—“when read by one familiar with the use and function of a lighting ballast, such as the one disclosed by the 529 Patent, [sic] would understand a rectifier is, at least in common uses, the only structure that would provide ‘a constant or variable magnitude DC

voltage.’” The district court further noted that “[i]t is clear to one skilled in the art that to provide a DC voltage when the source is a power line, which provides an AC voltage, a structure to rectify the line is required and is clear from the language of the ‘voltage source means’ term.”

Id. at 1338-39 (internal citations to the record omitted).

On the basis of the lower court’s factual findings and the Supreme Court’s guidance in *Teva*, and despite the patent’s underlying silence with regard to the meaning of the disputed term “voltage source means,” this Court deferred to the district court’s factual findings on the proper construction of the term in view of what those of ordinary skill in the art would understand the term to mean. *Id.* at 1339 (“We defer to these factual findings, absent a showing that they are clearly erroneous”). This Court also noted that such a conclusion “was not legal error” because the extrinsic evidence “was ‘not used to contradict claim meaning that is unambiguous in light of the intrinsic evidence’”—nor could it have been since the specification was silent as to the term—necessitating the guidance of a technical expert. *Id.* at 1338.

Similarly, when the Supreme Court clarified that subsidiary factual findings in the context of claim construction are subject to deferential review in *Teva*, it discussed approvingly Judge Learned Hand’s decision in *Harries v. Air King Products Co.*, 183 F.2d 158, 164 (2nd Cir. 1950) (L. Hand), noting how “[b]efore the creation of the Federal Circuit, the Second Circuit explained that in claim

construction, the subsidiary ‘question . . . of how the art understood the term . . . was plainly a question of fact; and unless the [district court’s finding was “clearly erroneous,” we are to take’ it ‘as controlling.’” *Teva*, 574 U.S. at 327. Judge Hand’s decision in *Harries* is particularly informative in the present situation. Faced with silence in the specification with regard to what the term “substantially saturated” meant, the district court turned to the testimony of experts to understand the use of the term in the relevant art, and the appellate court declined to set aside those factual findings on appeal. *See Harries*, 183 F.2d at 164.

Accordingly, the panel’s approach in this appeal, where it relied on silence to read a term of art, “fixed,” out of the claims to the exclusion of expert testimony to the contrary, is contradictory to the approach in *Lighting Ballast* and *Teva*. It is also inconsistent with the role expert testimony may play as recognized in *Markman*. Had the panel applied *Lighting Ballast* and *Teva* it would have recognized the import of the expert testimony in defining a term of art, and would have deferred to the factual findings of the Board with regard to the same.

Dated: September 10, 2021

Respectfully submitted,

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ADDENDUM

United States Court of Appeals for the Federal Circuit

SEABED GEOSOLUTIONS (US) INC.,
Appellant

v.

MAGSEIS FF LLC,
Appellee

2020-1237

Appeal from the United States Patent and Trademark
Office, Patent Trial and Appeal Board in No. IPR2018-
00960.

Decided: August 11, 2021

JOHN R. LANE, Fish & Richardson, PC, Houston, TX,
argued for appellant. Also represented by DANIELLE J
HEALEY, BRIAN GREGORY STRAND.

RUBEN JOSE RODRIGUES, Foley & Lardner LLP, Boston,
MA, argued for appellee. Also represented by JEFFREY
COSTAKOS, Milwaukee, WI.

Before MOORE, *Chief Judge*, LINN and CHEN, *Circuit
Judges*.

MOORE, *Chief Judge*.

Seabed Geosolutions (US) Inc. appeals a final written decision of the Patent Trial and Appeal Board concluding that Seabed failed to prove the challenged claims of U.S. Reissue Patent No. RE45,268 were anticipated or would have been obvious. *Seabed Geosolutions (US), Inc. v. Magseis FF LLC*, No. IPR2018-00960, 2019 WL 6442060 (P.T.A.B. Nov. 26, 2019) (*Board Decision*). Because the Board erred in construing the claims of the '268 patent, we vacate and remand.

BACKGROUND

The '268 patent is directed to seismometers for use in seismic exploration. '268 patent at Abstract. Seismic exploration generally involves sending an acoustic signal into the earth and using seismic receivers called geophones to detect “seismic reflections” from subsurface structures. *Id.* at 1:27–35, 47–52. Every independent claim of the '268 patent recites, in pertinent part, a “geophone internally fixed within” either a “housing” or an “internal compartment” of a seismometer. *Id.* at claims 1, 5, 21, 22.

Magseis FF LLC's predecessor¹ sued Seabed for patent infringement in the United States District Court for the Southern District of Texas. *Magseis FF LLC v. Seabed Geosolutions (US) Inc.*, No. 4:17-cv-01458 (S.D. Tex. filed May 11, 2017). On April 27, 2018, Seabed petitioned for *inter partes* review of the '268 patent on multiple grounds. The Board instituted review and found that the cited prior art did not disclose the geophone limitation. Based on that finding, the Board determined Seabed failed to prove the challenged claims were unpatentable. Seabed appeals, arguing the Board erred in its construction of the geophone

¹ Fairfield Industries Inc. transferred all relevant assets to Fairfield Seismic LLC, which changed its name to Magseis FF LLC. J.A. 338.

limitation. We have jurisdiction under 28 U.S.C. § 1295(a)(4)(A).

DISCUSSION

We review the Board’s ultimate claim construction and any supporting determinations based on intrinsic evidence *de novo*. *Personalized Media Commc’ns, LLC v. Apple Inc.*, 952 F.3d 1336, 1339 (Fed. Cir. 2020). We review subsidiary fact findings involving extrinsic evidence for substantial evidence. *Id.*

For *inter partes* review petitions filed before November 13, 2018, the Board uses the broadest reasonable interpretation (BRI) standard to construe claim terms. *See* 37 C.F.R. § 42.100(b) (2017). Under that standard, “claims are given their broadest reasonable interpretation consistent with the specification, not necessarily the correct construction under the framework laid out in *Phillips*.” *PPC Broadband, Inc. v. Corning Optical Commc’ns RF, LLC*, 815 F.3d 734, 742 (Fed. Cir. 2016) (citing *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc)). But we still “give[] primacy” to intrinsic evidence, and we resort to extrinsic evidence to construe claims only if it is consistent with the intrinsic evidence. *Tempo Lighting, Inc. v. Tivoli, LLC*, 742 F.3d 973, 977 (Fed. Cir. 2014); *see also Phillips*, 415 F.3d at 1318 (“[A] court should discount any expert testimony ‘that is clearly at odds with the claim construction mandated by the claims themselves, the written description, and the prosecution history.’” (quoting *Key Pharms. v. Hercon Labs. Corp.*, 161 F.3d 709, 716 (Fed. Cir. 1998))).

The Board construed “geophone internally fixed within [the] housing” to require a non-gimbaled geophone. It found, based entirely on extrinsic evidence, that “fixed” had a special meaning in the relevant art at the time of the invention: “not gimbaled.” *Board Decision*, 2019 WL 6442060, at *7–8. For claim construction, however, we begin with the intrinsic evidence, which includes the

claims, written description, and prosecution history. *See Tempo Lighting*, 742 F.3d at 977. If the meaning of a claim term is clear from the intrinsic evidence, there is no reason to resort to extrinsic evidence. *See Profectus Tech. LLC v. Huawei Techs. Co.*, 823 F.3d 1375, 1380 (Fed. Cir. 2016) (“Extrinsic evidence may not be used ‘to contradict claim meaning that is unambiguous in light of the intrinsic evidence.’” (quoting *Phillips*, 415 F.3d at 1324)).

The claims recite a “geophone internally fixed within [the] housing.” We conclude, based upon the intrinsic evidence, that the word fixed here carries its ordinary meaning, i.e., attached or fastened. *See J.A.* 2435–36. The adverb internally and the preposition within straddling the word fixed indicate that it specifies the geophone’s relationship with the housing, not the type of geophone. The plain language therefore supports interpreting “internally fixed within” to mean mounted or fastened inside.

This construction is consistent with the specification, which is “the single best guide to the meaning of [the] disputed term.” *Phillips*, 415 F.3d at 1320–21 (quoting *Vitronics Corp. v. Conception, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)). The specification describes mounting the geophone inside the housing as a key feature of the invention. By contrast, it says nothing about the geophone being gimbaled or non-gimbaled. Given that context, a skilled artisan would understand the claim term “geophone internally fixed within [the] housing” merely specifies where the geophone is mounted and has nothing to do with gimbaling.

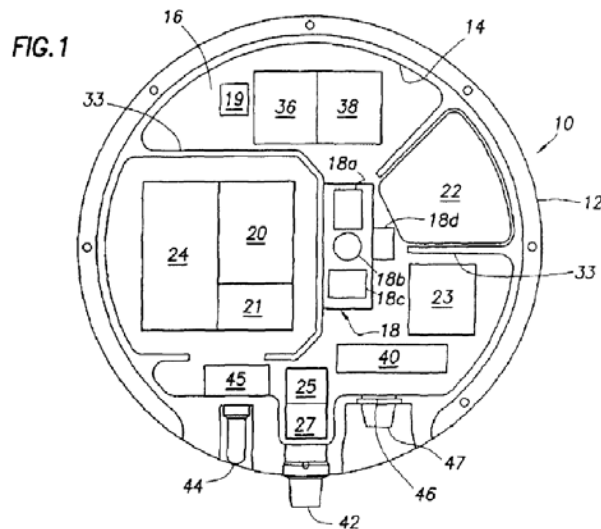
The specification claims it was “conventional thinking” to separate the geophone from a seismometer’s other components to maximize coupling with the earth. ’268 patent at 2:42–49. This required external cabling, which the specification criticizes as expensive, difficult to handle and maintain, and susceptible to failure in extreme environments. *Id.* at 2:23–37, 2:49–54, 3:34–48. To avoid these issues, the specification discloses a geophone that is

“[d]isposed” and “internally mounted within” the seismometer housing. *Id.* at 6:30–32, 43–45; *see also id.* at 4:15–19 (“[A]ll of the electronics are disposed within or on the case, including a geophone package . . .”). This had allegedly never been done before. *Id.* at 7:31–34 (“[N]one of the prior art devices comprise a self-contained seismic recording unit as described herein. Rather, the prior art units separate the geophone package from the electronics of the rest of the unit.”). The specification touts its integrated approach, repeating 18 times that the invention is “self-contained” and explaining that it “requires no external wiring or connection.” *Id.* at 6:43–45. The specification does not purport to disclose a particular type of geophone. *See id.* at 6:49–55 (stating that the invention uses “conventional geophones”). These disclosures make clear that the crux of the invention is mounting a generic geophone inside the housing. This supports an interpretation of the claimed “geophone internally fixed within [the] housing” as requiring *mounting* any type of geophone in the housing.

The specification never mentions gimbaled or non-gimbaled geophones, nor does it provide a reason to exclude gimbals. That silence does not support reading the claims to exclude gimbaled geophones. *Cf. Santarus, Inc. v. Par Pharm., Inc.*, 694 F.3d 1344, 1351 (Fed. Cir. 2012) (“Negative claim limitations are adequately supported when the specification describes a reason to exclude the relevant limitation.”); *Williams v. Gen. Surgical Innovations, Inc.*, 60 F. App’x 284, 287 (Fed. Cir. 2003) (non-precedential) (“The absence of a requirement to leave the expander in place is not a teaching to remove it.”). Magseis admits that gimbaled geophones were common in the art, yet there is no mention of them in the specification. Appellee’s Br. 44 (“At the time of filing, . . . for marine applications, . . . historically gimbaled geophones were used.”). The specification does, however, disclose a gimbaled clock, revealing that the applicant was aware of gimbals at the time of the invention. ’268 patent at Abstract, 4:20–22, 7:66–8:7. If the patentee had

wanted to distinguish between gimbaled and non-gimbaled geophones, it knew how to do so and could have indicated as much in the specification. But it did not.

Magseis' argument that the specification limits the claims to a non-gimbaled geophone is unpersuasive. *See* Appellee's Br. 8–10. Magseis cites Figure 1 and the text at column 6, lines 43 through 49. *Id.* We do not agree that the cited portions of the specification describe a non-gimbaled geophone. Figure 1 is a rudimentary schematic that depicts geophone 18 as a mere black box inside compartment 16:



Magseis' expert, Rocco Detomo, testified that Figure 1 is "not a mechanical drawing." J.A. 1670 at 291:5–12. As for column 6, it merely discloses a "conventional geophone[]" that is "internally mounted within pod 10 and thus requires no external wiring or connection." '268 patent at 6:43–55. Silence about gimbals does not evidence the absence of gimbals. We therefore reject Magseis' argument that the specification describes only a non-gimbaled geophone.

Consistent with the specification, the prosecution history suggests the construction of the word fixed as mounted or fastened. Each time the word fixed came up in prosecution, the applicant and examiner understood it in its ordinary sense, i.e., mounted or fastened. For example, to support the geophone limitation, the applicant cited the specification's disclosure of a geophone "disposed, and electrically connected, within the internal compartment."² J.A. 710. In doing so, the applicant implicitly equated the claim term "internally fixed within" with "disposed, and electrically connected, within." That equivalence reveals the applicant understood the word fixed to mean mounted. Other discussions of the word fixed in the prosecution history are similar. See J.A. 1484 (examiner equating "internally fixed in the housing" with "mounted . . . within the case"); J.A. 3059 (examiner distinguishing a geophone that is "fixed inside of the housing" from a geophone that is ejected from the housing); J.A. 3083–84 (applicant adding "fixed" to the claims and drawing the same distinction the examiner did). The prosecution history therefore supports interpreting the claims according to the common usage of the word fixed.

We reject Magseis' contention that Seabed waived certain arguments concerning the prosecution history by failing to raise them below. The doctrine of waiver does not preclude a party from supporting its original claim construction with new citations to intrinsic evidence of record. See *Interactive Gift Express, Inc. v. Compuserve Inc.*, 256 F.3d 1323, 1346 (Fed. Cir. 2001). Seabed's arguments on appeal do not change the scope of the construction it

² Because the '268 patent is a reissue patent, the applicant had to provide "an explanation of the support in the disclosure of the patent for [any] changes made to the claims," which included the addition of claim 22. 37 C.F.R. § 1.173(c).

advanced below, i.e., that “internally fixed within” does not exclude gimbaled geophones. J.A. 446–51. And Magseis does not claim that Seabed’s arguments rely on intrinsic evidence that was not in the record below. Accordingly, we see no waiver.

The intrinsic evidence consistently informs a skilled artisan that “fixed” in the claims means mounted or fastened. Given the clarity of the intrinsic evidence, resort to extrinsic evidence is unnecessary. Thus, to the extent the Board relied on extrinsic evidence to alter the meaning of “fixed” that is clear from the intrinsic evidence, that was error.

CONCLUSION

The intrinsic evidence as a whole supports an interpretation of “geophone internally fixed within [the] housing” that does not exclude gimbaled geophones. The Board erred in reaching a narrower interpretation. We therefore vacate and remand for further proceedings consistent with this opinion.

VACATED AND REMANDED

COSTS

Costs to Appellants.

FORM 19. Certificate of Compliance with Type-Volume Limitations

Form 19
July 2020

**UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT**

CERTIFICATE OF COMPLIANCE WITH TYPE-VOLUME LIMITATIONS

Case Number: 2020-1237

Short Case Caption: Seabed Geosolutions (US) Inc. v. Magseis FF LLC

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Date: 09/10/2021

Signature: /s/ Jeffrey N. Costakos

Name: Jeffrey N. Costakos