UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

WESTERNGECO L.L.C.,	§	
	§	
Plaintiff,	§	
	§	
v.	§	**Case No. 4:09-cv-1827**
	§	
ION GEOPHYSICAL CORPORATION, et al.	§	
	§	
	§	
Defendants.	§	

MEMORANDUM AND ORDER

Pending before the Court are three motions for summary judgment filed by Plaintiff WesternGeco L.L.C. ("Plaintiff" or "WesternGeco"): (1) WesternGeco's Motion for Summary Judgment on Defendants' Inventorship Counterclaims and Derivative Defenses and Claim (Doc. No. 167); (2) WesternGeco's Motion for Summary Judgment of Non-Infringement of ION's '992 Patent (Doc. No. 168); and (3) WesternGeco's Motion for Summary Judgment on ION's Equitable Conduct Defense and Antitrust Counterclaim Regarding the Zajac '038 Patent (Doc. No. 169). After considering the motions, all responses thereto, and the applicable law, the Court finds that WesternGeco's motions for summary judgment must be GRANTED.

I. BACKGROUND

A. Factual Background

This patent dispute involves technology used for conducting offshore seismic surveys. Marine seismic streamers ("streamers") are miles-long cables that are towed

behind ships in arrays which include a number of streamers, spread out across hundreds of meters. The streamers contain an acoustic source, such as an air gun, which is used to generate an acoustic signal and send it towards the ocean floor. Seismic sensors placed along the length of each streamer detect the reflected acoustic signal. The data collected from these acoustic signals can be used to create three-dimensional maps of the subsurface of the ocean floor, which are used to facilitate natural resource exploration and management. Because the cables are long, and ships tow a number of them, challenges arise related to the positioning, tangling, maneuvering, deployment, and retrieval of the streamers. Streamer positioning devices, also known as "birds," can be deployed throughout a streamer array to address these potential challenges, to provide greater control of streamer positioning, and to achieve optimal imagery from the acoustic signals.

B. Procedural Background

This case was originally brought by WesternGeco against ION in 2009. WesternGeco alleges that ION has infringed on five of WesternGeco's U.S. patents—U.S. Patent Nos. 6,932,017 (the "'017 Patent"); 7,080,607 (the "'607 Patent"); 7,162,967 (the "'967 Patent"); 7,293,520 (the "'520 Patent"); 6,691,038 (the "Zajac '038 Patent"). Hereinafter, the '017, '607, '967, and '520 patents collectively are referred to as the "Bittleston Patents."[1] ION filed an Answer asserting seven affirmative defenses and eleven counterclaims. (Doc. No. 6.) ION's eighth counterclaim alleges that three ION employees are co-inventors of the Bittleston patents, and that these three co-inventors

[1] The Court notes that Øyvind Hillesund is the first named inventor on these patents. However, perhaps because the dispute in this case centers on Dr. Bittleston, the parties and the Court have thus far referred to these patents as the "Bittleston Patents." In the interest of maintaining clarity and consistency, the Court will continue to do so in this Memorandum and Order.

were omitted from the patent application. (*Id.* ¶¶ 97-98.) ION's ninth counterclaim alleges that WesternGeco infringes on U.S. Patent No. 6,525,992 (the '992 Patent), belonging to ION. ION's tenth counterclaim alleges an antitrust violation by WesternGeco.

In June 2010, WesternGeco filed suit against the following six entities: (1) Fugro-Geoteam, Inc.; (2) Fugro, Inc.; (3) Fugro (USA), Inc.; (4) Fugro Geoservices, Inc.; (5) Fugro-Geoteam AS; and (6) Fugro Norway Marine Services (collectively, "Fugro" or the "Fugro Defendants"). (Case No. 4:10-cv-2120.) In its suit against the Fugro Defendants, WesternGeco alleged that, in conducting marine towed streamer surveys, Fugro infringed on the same five U.S. patents at issue in WesternGeco's claims against ION. Specifically, WesternGeco claimed that Fugro violated 35 U.S.C. §§ 271(a), (b), (c), and/or (f) by "making, using, offering to sell, selling and/or supplying in or from the United States products and services relating to steerable streamers (including but not limited to products and services incorporating DigiFIN and ORCA) and/or inducing and/or contributing to such conduct . . . ." (Case No. 4:10-cv-2120, Pl. Compl. ¶ 34, Doc. No. 1.) In addition, WesternGeco claimed that the alleged infringement was willful, rendering the case "exceptional" under 35 U.S.C. § 285. In July 2010, the Court consolidated WesternGeco's suit against ION with its suit against Fugro. (Doc. No. 119.) Thereafter, the Court dismissed WesternGeco's claims for direct infringement under 35 U.S.C. § 271(a) to the extent that such claims were based upon Fugro's acts located in or upon lease holdings in the Chukchi Sea or in or upon the United States' Exclusive Economic Zone in the Gulf of Mexico. (Doc. Nos. 144, 164.)

WesternGeco has submitted three motions for summary judgment. (Doc. Nos. 167, 168, 169.) In the first, WesternGeco argues that it is entitled to summary judgment on ION's eighth counterclaim, in which ION alleges that the Bittleston patents are invalid because they fail to name three co-inventors. (Doc. No. 167.) In the second, WesternGeco argues that it is entitled to summary judgment on ION's ninth counterclaim regarding infringement of ION's '992 patent. (Doc. No. 168.) In the third, WesternGeco argues that it is entitled to summary judgment on ION's inequitable conduct defense and tenth counterclaim, which alleges antitrust violations. (Doc. No. 169.) The Court considers WesternGeco's three motions for summary judgment, in turn.

II. SUMMARY JUDGMENT LEGAL STANDARD

A court must grant summary judgment if the pleadings and evidence show that no genuine issue of material fact exists, and that the movant is entitled to judgment as a matter of law. Fed. R. Civ. P. 56. The party moving for summary judgment must demonstrate the absence of any genuine issue of material fact; however, the party need not negate the elements of the nonmovant's case. *Little v. Liquid Air Corp.*, 37 F.3d 1069, 1075 (5th Cir. 1997). If the moving party meets this burden, the nonmoving party then must go beyond the pleadings to find specific facts showing there is a genuine issue for trial. *Id.* "A fact is material if its resolution in favor of one party might affect the outcome of the lawsuit under governing law." *Sossamon v. Lone Star State of Texas*, 560 F.3d 316, 326 (5th Cir. 2009) (footnote omitted) (internal quotation marks omitted).

Factual controversies should be resolved in favor of the nonmoving party. *Liquid Air Corp.*, 37 F.3d at 1075. However, "summary judgment is appropriate in *any* case 'where critical evidence is so weak or tenuous on an essential fact that it could not

support a judgment in favor of the nonmovant.'" *Id.* at 1076 (quoting *Armstrong v. City of Dallas*, 997 F.2d 62, 67 (5th Cir. 1993)). Importantly, "[t]he nonmovant cannot satisfy his summary judgment burden with conclusional allegations, unsubstantiated assertions, or only a scintilla of evidence." *Diaz v. Superior Energy Servs., LLC*, 341 F. App'x 26, 28 (5th Cir. 2009) (citation omitted). The Court should not, in the absence of proof, assume that the nonmoving party could or would provide the necessary facts. *Liquid Air Corp.*, 37 F.3d at 1075.

III. MOTION FOR SUMMARY JUDGMENT ON ION'S COUNTERCLAIM OF PATENT INVALIDITY

In ION's Answer, it asserts seven affirmative defenses and eleven counterclaims. (Doc. No. 6.) ION's eighth counterclaim alleges that three DigiCOURSE[2] employees—Andre Olivier, Robert Rouquette, and Brien G. Rau—are co-inventors of the Bittleston patents. The counterclaim asserts that, because these purported co-inventors were not named in the Bittleston patents, the Bittleston patents are invalid. ION's Response to WesternGeco's Motion for Summary Judgment indicates that ION has since edited its contentions somewhat, which now can be summarized as follows: (1) Andre Olivier conceived of lateral steering technology and disclosed this technology to Simon Bittleston; (2) at least one of the claimed inventions in each of the Bittleston patents derives from Olivier's conception, rendering him a co-inventor of the Bittleston patents; (3) other inventors, including Knut Rasmussen and employees of BOFORS, are also unnamed, joint-inventors of the Bittleston patents; and (4) because Andrew Olivier, Knut Rasmussen, and other BOFORS employees are co-inventors not named in the Bittleston patents, the patents are invalid.

[2] DigiCOURSE was a predecessor to ION.

A. Background

ION's inventorship claim relies on its contention that Andre Olivier invented a streamer positioning device capable of lateral steering technology, and that this device is taught in the Bittleston patents. WesternGeco contends that its own engineer developed this technology prior to Olivier, and that, regardless, such lateral steering technology does not contribute sufficiently to the Bittleston patents to render its inventor a joint inventor of those patents. The Court considers the relevant technological developments at WesternGeco and ION.

1. Developments at Geco-Prakla/WesternGeco

a. Streamer positioning devices

In 1992, Dr. Simon Bittleston was working as an engineer for Geco-Prakla, AS ("Geco"), a predecessor of WesternGeco. Bittleston attests that he began researching methods and systems for lateral steering around that time. (Bittleston Dep. at 27:8-25, 29:8-30:10, 152:4-20, Doc. Nos. 167-4, 167-10.) In 1993, Bittleston authored a report titled "NESSIE-4 Feasibility Report—Integrated Birds" (the "1993 NESSIE Report") which discussed "[a] new bird design [with] the opportunity of introducing horizontal steering distributed along the streamer." (Doc. No. 167-12 at WG23897.) In the 1993 NESSIE Report, Bittleston discusses a bird designed with two wings, which has the ability steer a streamer vertically and horizontally. (Doc. No. 167-12 at WG23897, WG23922, WG23911.) In February 1995, Bittleston wrote a paper titled "Position Control of Marine Seismic Streamers," in which he describes a bird with two, independently controlled wings, which "provide the means to force the streamer both horizontally and vertically." (Doc. No. 167-13 at WG1165-WG1166.)

b. Control systems for lateral steering

In addition to his work on streamer positioning devices, Bittleston also worked with Øyvind Hillesund, a fellow Geco engineer, on designing control systems for lateral steering. (Bittleston Dep. at 150:7-13, 158:7-12.) Control system technology differs from the technology utilized on the birds themselves, as it includes a combination of local controllers on the birds as well as controllers onboard the ships; this combination allows for control of the entire set of birds across an array. (Doc. No. 167-12 at WG23923-24.) WesternGeco's December 1994 Paper, titled "Nessie-4 Bird Control—Initial Study," discloses control system technology including both a "global control" onboard the ship and a "local control" on or near the birds. (Doc. No. 167-14 at WG12109-WG12114.) The control systems discussed in this study could include "a real-time estimator for horizontal positioning" (Doc. No. 167-14 at WG12113-WG12114), which would allow for steering commands sent from the ship to be based upon estimated streamer positions. The Bittleston patents teach control systems for lateral steering.

2. Developments at DigiCOURSE/ION

DigiCOURSE, a company acquired by ION in 1998, was a manufacturer and seller of components or devices used in marine seismic streamers. Andre Olivier, a mechanical engineer, joined DigiCOURSE in 1988, and began creating a bird that would control only the depth of a streamer positioning device. (Olivier Dep. 31:1-25, Jan. 22, 2010, Doc. No. 185-G.) Around 1993, DigiCOURSE began developing what it contends was a new system for positioning marine seismic streamers. According to Chuck Ledet, Engineering Manager for DigiCOURSE at that time, one goal of this new system was to rid streamer positioning devices of batteries through the use of inductive coupling. (Ledet

Decl. ¶ 3, Doc. No. 185-L.) Another goal was to create "a two-wing bird to control both the horizontal and vertical position of marine seismic streamers during deployment, use, and retrieval, creating the ability . . . to laterally steer a seismic array." (*Id.*)

In 1994, tasked with identifying new opportunities, Olivier "discovered the ability to steer streamers laterally." (Olivier Dep. 90:2-6.) ION has submitted a number of exhibits—including drawings and computer models—which depict the device that Olivier was designing beginning in 1994 and into 1995. (Doc. Nos. 185-P, 185-Q, 185-R, and 185-N (drawings); Doc. Nos. 185-S, 185-T, and 185-U (computer models).) The device, as depicted in these exhibits, includes two wings, and involves technology allowing for the two wings to be controlled independently. (Olivier Dep. 104:2-14; 107:12.) At the time that Olivier developed this technology, neither he nor Ledet knew of any other company that had designed or built a bird with lateral steering capabilities. (Olivier Dep. 113:25-114-6; 115:17-19; Ledet Decl. ¶ 3.)

In 1994 or 1995, DigiCOURSE built a prototype of a bird capable of vertical and horizontal steering. (Olivier Dep. 66:12-67:9.) One of the concepts modeled through this prototype was called the "DigiBEE," which had two, independently controllable wings. (Olivier Dep. 67:6-68:7; Thompson Dep. 95:2-9; Ledet Decl. ¶ 7.) Between April 1994 and March 1995, Olivier explored the use of birds with one, two, three, and four wings. (Olivier Dep. 168:1-16). By the Spring of 1995, he determined that the two-wing implementation would be the preferred embodiment. (Olivier Dep. 168:23-169:9.) According to ION, Olivier's vertical and lateral streamer positioning device is taught in the '992 Patent, initially filed in provisional applications on September 23, 1995. ('992 Patent, Doc. No. 185-E.) A representation of the device taught in the '992 patent was

"substantially complete" by June or July of 1995, meaning that the device could be subject to a set of tests or conditions to explore its usability. (Olivier Dep. at 57:1-58:1, 64:7-19.)

B. Joint Inventorship Legal Standard

"When two or more persons make an invention jointly, they must apply for a patent jointly." *Trovan*, 299 F.3d at 1301-02. The question of whether a person is a joint inventor is fact specific, and no bright-line standard will suffice in every case." *Fina Oil & Chem. Co. v. Ewen*, 123 F.3d 1466, 1473 (Fed. Cir. 1997). However, an inventorship analysis must begin with "the construction of each disputed claim to determine the subject matter encompassed thereby." *Gemstar-TV Guide Int'l, Inc. v. Int'l Trade Comm'n*, 383 F.3d 1352, 1381-82 (Fed. Cir. 2004) (citation omitted); *see also Eli Lilly & Co. v. Aradigm Corp.*, 376 F.3d 1352, 1360 (Fed. Cir. 2004) (citation omitted) ("[T]he legal scope of a claim must be known before the contributions of an alleged co-inventor can be compared to that claim to determine whether the correct inventors were named."). Thus, the first step of the joint inventorship analysis, which the Court has already completed in this case, is claim construction.

"The second step is a comparison of the alleged contributions of each asserted co-inventor with the subject matter of the correctly construed claim to determine whether the correct inventors were named." *Gemstar*, 383 F.3d at 1382. In order to be considered an inventor, one must contribute to the conception of the invention. *Burroughs Wellcome Co. v. Barr Labs., Inc.*, 40 F.3d 1223, 1227-28 (Fed. Cir. 1994). "[T]he test for conception is whether the inventor had an idea that was definite and permanent enough that one skilled in the art could understand the invention." *Id.* at 1228. Put differently,

conception exists when the idea is "so clearly defined in the inventor's mind that only ordinary skill would be necessary to reduce the invention to practice, without extensive research or experimentation." *Id.* A joint inventor's contribution to the conception of an invention must not be insignificant in quality, when "measured against the dimension of the full invention." *Eli Lilly & Co. v. Aradigm Corp.*, 376 F.3d 1352, 1359 (Fed. Cir. 2004). Moreover, a joint inventor must "engage with the other co-inventors to contribute to a joint conception." *Vanderbilt Univ. v. ICOS Corp.*, 601 F.3d 1297, 1303 (Fed. Cir. 2010). If an invention emerges from several steps, each joint inventor "needs to perform but a part of the task . . . [i]t is not necessary that the entire inventive concept should occur to each of the joint inventors." *Kimberly-Clark Corp. v. Proctor & Gamble Dist. Co., Inc.*, 973 F.2d 911, 916 (Fed. Cir. 1992).

Though a joint inventor must contribute to the conception of the invention, persons may be joint inventors "even though (1) they did not physically work together or at the same time; (2) each did not make the same type of amount of contribution, or (3) each did not make a contribution to the subject matter of every claim of patent." 35 U.S.C. § 116. Still, a contribution that is "too far removed from the real-world realization of an invention" cannot constitute joint inventorship. *Id.* at 1362. Likewise, one who merely suggests an idea, *Garrett Corp. v. United States*, 422 F.2d 874, 881 (Fed. Ct. Cl. 1970), or one who simply assists the actual inventor after conception, *Eli Lilly & Co.*, 376 F.3d at 1359, cannot qualify as a joint inventor.

Because "[t]he inventors named in an issued patent are presumed to be correct," *Hess v. Adv. Cardiovascular Sys., Inc.*, 106 F.3d 976, 980 (Fed. Cir. 1997) (citation omitted), a party seeking to correct inventorship "must meet the heavy burden of proving

its case by clear and convincing evidence." *Eli Lilly & Co.*, 376 F.3d at 1358. An alleged co-inventor's testimony, standing alone, is inadequate to prove conception by clear and convincing evidence. *Price v. Symsek*, 988 F.2d 1187, 1194 (Fed. Cir. 1993). Rather, corroborating evidence is required to establish that the co-inventor made a contemporaneous disclosure that enabled "a skilled artisan to practice the portion of the invention that the co-inventor contributed." *Tavory v. NTP, Inc.*, 297 F. App'x. 976, 979 (Fed. Cir. 2008).

C. Analysis

ION argues that Andre Olivier and other engineers unnamed in the Bittleston patents contributed to the invention of the Bittleston patents. ION also asserts inequitable conduct and antitrust claims against WesternGeco for failing to name these purported co-inventors in the Bittleston patents. To determine whether another engineer is a co-inventor of the Bittleston patents, the Court must consider (1) what the purported joint inventor's contribution was, and (2) whether that contribution appears in the claimed invention. *Ethicon*, 135 F.3d at 1461. The Court begins, as it must, by considering the construction of each disputed claim, so that the Court can determine the subject matter encompassed thereby." *Gemstar-TV Guide*, 383 F.3d 1352, 1381-82 (Fed. Cir. 2004) (citation omitted).

1. Claim Construction

ION claims joint inventorship as to a number of claims in the four Bittleston patents. Before considering whether any individual is an unnamed co-inventor of these patents, the Court must construe the disputed claims.

a. The '017 patent

ION disputes four claims in the '017 patent. The first is the following language from the preamble to claim 16: "each streamer positioning device having a wing and a wing motor for changing the horizontal orientation of the wing so as to steer the streamer positioning device laterally." (Claim 16, '017 patent, Doc. No. 185-A.) As ION admits, the Federal Circuit has held that "[t]he preamble of a claim does not limit the scope of the claim." *In Re Paulsen*, 30 F.3d 1475, 1479 (Fed. Cir. 1994). However, "terms appearing in a preamble may be deemed limitations of a claim when they 'give meaning to the claim and properly define the invention.'" *Id.* (quoting *Gerber Garment Tech., Inc. v. Lectra Sys., Inc.*, 916 F.2d 683, 688 (Fed. Cir. 1990). ION urges that this language from the preamble acts to define (and thus becomes a claim limitation of) the phrase "streamer positioning device."

The Court has already construed the phrase "streamer positioning device." In the Court's July 16 Memorandum and Order (the "Claim Construction Order"), the Court construed the phrase "streamer positioning device" as not requiring any particular type of bird, and not necessarily requiring a device that is steerable horizontally *and* vertically. (*Id.* at 13-16.) Because the Court has already construed "streamer positioning device," it is not necessary to further construe this portion of the preamble, which, according to ION, is only relevant to the extent that it defines "streamer positioning device."[3]

ION also disputes the portion of the '017 patent that claims "means for actuating the wing motors to produce said desired changes in wing orientation." (Claim 16, '017

[3] The Court also notes that, even if the preamble could be said to define the "streamer positioning device," such a definition would be consistent with the Court's construction of the phrase as not requiring any particular type of bird, and not necessarily requiring a device that is steerable horizontally and vertically. (*Id.* at 13-16.)

patent.) The parties have not asked the Court to construe this claim, as its meaning is clear.

ION disputes the portion of claim 17 that states, "each streamer positioning device has a first wing and a second wing, said first wing, and said second wing being independently moveable to steer the streamer positioning device laterally and vertically." (Claim 17, '017 patent.) Again, the parties have not asked the Court to construe this claim further, as its meaning is clear.

Finally, ION disputes claim 18, which includes the following element: "each streamer positioning device is rigidly attached to and unable to rotate with respect to its streamer." (Claim 18, '017 patent.) The parties have not asked the Court to construe this claim further, as its meaning is clear.

b. The '607 patent

ION disputes the inventorship of "streamer positioning devices," an element of the '607 patent. As discussed above, the Court construed this language in its Claim Construction Order. ION also disputes the phrase, "each streamer positioning device has a first hydrodynamic deflecting surface and a second hydrodynamic deflecting surface, said first deflecting surface and second deflecting surface being independently movable to steer the streamer positioning device laterally and vertically." The parties do not ask the Court to construe this phrase, and the Court notes only that, in the context of the patent, a "hydrodynamic deflecting surface" is a wing.[4] Finally, ION disputes the phrase, "each streamer positioning device is rigidly attached to and unable to rotate with respect

[4] The Court does not express an opinion as to whether a "hydrodynamic deflecting surface" is different, in some way, from other types of wings; that does not appear to be an issue in this case. The Court only points out that such a surface is a wing for the sake of clarity.

to its streamer." As noted above, the parties have not asked the Court to construe this claim further, as its meaning is clear.

c. The '967 patent

As to the '967 patent, ION disputes the inventorship only of "streamer positioning devices," which, as discussed above, has been construed by the Court.

d. The '520 patent

As to the '520 patent, ION disputes the inventorship only of "streamer positioning devices," which, as discussed above, has been construed by the Court.

2. Andre Olivier

ION argues that Andre Olivier developed a device capable of lateral steering, that he disclosed this technology to Geco, and that, by developing and disclosing this technology, Olivier contributed to the Bittleston patents. WesternGeco's primary argument is that the lateral steering device that Olivier claims to have invented is so insignificant a part of the control systems taught in the Bittleston patents that the invention of such a device would not render Olivier a joint inventor of the Bittleston patents. However, assuming that the conception of this lateral steering device *could* render Olivier a joint inventor of the Bittleston patents, WesternGeco offers four arguments as to why, here, it does not: (1) Olivier's purported invention of lateral steering technology was not communicated to Bittleston; (2) even if it was communicated to Bittleston, Olivier's work was too premature to constitute joint inventorship of an individual bird design;[5] (3) even if it was communicated to Bittleston,

[5] WesternGeco disputes that the inventorship of any specific bird design would render Olivier a joint inventor of the Bittleston control systems. However, assuming that it would, WesternGeco's contends that Olivier's work was too premature at the time it was allegedly communicated to Bittleston even to render him a joint inventor of that bird design.

Olivier's work included only devices already known in the art; and (4) even if it was communicated to Bittleston, Bittleston had already developed such technology independently.

a. Communication of Olivier's invention to Bittleston

"Individuals cannot be joint inventors if they are completely ignorant of what each other has done until years after their individual efforts." *Kimberly-Clark*, 973 F.3d at 917. Thus, in order to succeed on its claim that Andre Olivier was a joint inventor of the Bittleston patents, ION must show that Olivier's purported contribution was communicated to the Bittleston patents' inventors.

ION contends that lateral steering technology was communicated to Bittleston at a meeting between DigiCOURSE and Western Geophysical (another predecessor to WesternGeco) in the summer of 1995. ION indicates that, at this meeting, DigiCOURSE discussed the operational benefits of lateral steering and disclosed photographs of Olivier's two-wing bird prototype. Bittleston admits that lateral steering was discussed during a meeting with DigiCOURSE, and admits to DigiCOURSE providing photographs of objects related to lateral steering. (Bittleston Dep. 22:5-23:2, 33:23-34:13, 40:6-16, Sept. 15, 2011, Doc. No. 185-J.)

Chuck Ledet, former Vice President of Engineering for DigiCOURSE, indicates that, in 1995, he had discussions with Bittleston in which Bittleston expressed an "interest in the concept of lateral streamer steering and a desire for a device capable of controlling the lateral position" of a seismic streamer. (Ledet Decl. ¶ 8, Doc. No. 185-L.) As a result of discussions with Bittleston, Ledet says, he sent a lateral steering prototype to Bittleston, equipped with wings for testing. (*Id.* ¶ 10.) Ledet is the only witness to state

that a product capable of being tested was sent by DigiCOURSE to Bittleston; testimony from Olivier, Ledet, and John Thompson, ION's corporate representative, indicates that DigiCOURSE sent prototypes and drawings of prototypes of devices with lateral steering capabilities. (Olivier Dep. 162:2-163.1, 130:18-132:11, 160:11-25, 164:4-7, Jan. 22, 2010, Doc. No. 185-G; Ledet Dec. ¶ 10; Thompson Dep. 138:12-25, 139:9-24, 142:2-16; Prototype Shipment, Doc. No. 185-CC at ION 1059-1067; E-mail Confirming Prototype Shipment, Doc. No. 185-DD at ION 92-93; Olivier Decl. ¶ 7.)

WesternGeco argues that, even if the above allegations are true, they are insufficient to establish the requisite collaboration for joint inventorship. WesternGeco maintains that photographs and drawings of a prototype are insufficiently communicative, as they would not have allowed Bittleston to determine the functionality of the devices pictured. Indeed, ION's own corporate representative could not make such a determination when he was directed to look at the same pictures. (Thompson Dep. 135:24-136:16, Oct. 26, 2011, Doc. No. 197-26.) WesternGeco urges that these "prototypes" were therefore merely non-functional dummy shapes, "too far removed from the real-world realization of an invention" to constitute a contribution. *Eli Lilly & Co.*, 376 F.3d at 1359.

The Court is not convinced that the photographs, drawings, and prototype allegedly submitted by DigiCOURSE were insufficient to communicate Olivier's ideas. If Ledet's testimony is believed, DigiCOURSE did not send only dummy shapes, but also sent a lateral steering prototype to Bittleston, equipped with wings for testing. (Ledet Decl. ¶ 10.) With the evidence before the Court, a reasonable jury could conclude that a

device capable of lateral steering was disclosed by DigiCOURSE to the Bittleston patents' inventors.

b. Prematurity of Olivier's disclosed device

WesternGeco also urges that ION/DigiCOURSE never developed or possessed a *functional* prototype for the Olivier device, rendering its purported conceptualization of such a device too premature to give rise to joint inventorship. However, for the reasons provided above, the Court finds Ledet's declaration sufficient to support a finding that the technology conceived of by Olivier was provided in workable form, that is, equipped with wings for testing, to Bittleston.

c. Bittleston's independent development of lateral steering technology

Finally, WesternGeco asserts that any conception and disclosure of lateral steering to Bittleston is insignificant, as Bittleston began developing lateral steering technology himself in 1993, two years prior to the alleged disclosure in 1995. Bittleston's resume indicates that he "began initial lateral bird feasibility" in 1993. (Doc. No. 167-11 at WG00032070.) Bittleston's NESSIE-4 Feasibility Report, dated October 28, 1993, states that "[a] new bird design gives the opportunity of introducing horizontal steering distributed along the streamer." (Doc. No.167-12 at WG00023897.) In February 1995, Bittleston published a paper titled "Position Control of Marine Seismic Steamers," which discloses a bird whose "two wings are independently controlled" to "provide the means to force the streamer both horizontally and vertically." (Doc. No. 167-13.) After Bittleston developed this concept, but before ION's alleged disclosure, Bittleston built experimental prototypes and tested them in both laboratory and real world settings. (Doc. No. 224-27 at WG12332).

ION argues that, aside from Bittleston's own testimony, there is no evidence proving that Bittleston actually invented such a device *before* Olivier; that is, there is no evidence that Bittleston conceived of a device that was "so clearly defined in [his] mind that only ordinary skill would be necessary to reduce the invention to practice, without extensive research or experimentation." *Burroughs*, 40 F.3d at 1228. However, ION does not present evidence contradicting Bittleston's testimony, nor does it respond to the 1993 and 1995 reports—evidence aside from Bittleston's testimony—that discuss horizontal steering technology. From this record evidence, the Court concludes that Bittleston developed horizontal steering technology before ION disclosed such technology to him.

However, the evidence does not clearly establish that, prior to the disclosure in 1995, Bittleston conceived of a device that was "so clearly defined in [his] mind that only ordinary skill would be necessary to reduce the invention to practice." *Burroughs*, 40 F.3d at 1228. While Bittleston's experimental prototypes might meet this standard, the Court, which has no expertise in this field, cannot say whether they do or do not. Importantly, the conception purportedly disclosed by DigiCOURSE also appears to fall short of the *Burroughs* standard. Even the testimony of Chuck Ledet does not support a conclusion that the lateral steering technology developed by Olivier's and disclosed to Bittleston was so clearly defined that only ordinary skill would be necessary to reduce it to practice. Indeed, the weight of the evidence submitted by ION suggests that any disclosure to Bittleston was in a form more premature than the form in which Bittleston had already developed the concept. (*Compare* Olivier Dep. 162:2-163.1, 130:18-132:11, 160:11-25, 164:4-7, Jan. 22, 2010, Doc. No. 185-G; *and* Ledet Decl. ¶ 10; *and* Thompson Dep. 138:12-25, 139:9-24, 142:2-16; *and* Prototype Shipment, Doc. No. 185-

CC at ION 1059-1067; *and* E-mail Confirming Prototype Shipment, Doc. No. 185-DD at ION 92-93; Olivier Decl. ¶ 7, *with* Doc. No. 224-27 at WG12332.) Thus, the evidence depicts Bittleston's development of a device capable of lateral steering, and the subsequent disclosure by DigiCOURSE to Bittleston of a similar device in a similar or less developed form. As to the conceptualization of lateral steering technology, then, the facts make clear that Bittleston developed and tested the concept of lateral steering prior to and in a form at least equally as advanced as any such concept disclosed by DigiCOURSE.[6]

With this conclusion, the Court must grant summary judgment in favor of WesternGeco on ION's inventorship counterclaim. The Court notes that the parties make a number of other arguments regarding the second *Ethicon* element, the appearance of the alleged contribution in the patented invention. The significance of lateral steering technology to the claimed control systems is contested, and might offer an alternative ground on which to grant summary judgment. However, as the Court's conclusion on the first *Ethicon* element makes clear that Olivier cannot claim to be a joint inventor of the *Bittleston* patents, the Court does not need to reach the second element.

3. Other unnamed co-inventors

ION argues that the Bittleston patents also exclude other unnamed co-inventors, including Knut Rasmussen and other unnamed employees at BOFORS SA Marine AB

[6] The Court notes that both WesternGeco and ION (or the parties' predecessors) later endeavored to patent lateral steering technology in some form. Bittleston's U.S. Patent No. 6,671,223, which claims a priority date of December 20, 1996, discloses and claims a bird with two independently controlled wings for steering a seismic streamer both laterally and vertically ('223 Patent, Doc. No. 224-31); ION's '992 Patent (Doc. No. 185-E), also claims a two-winged device for controlling the depth and horizontal position of an underwater cable. For the purposes of the joint inventorship claim, the Court concludes that those later efforts are irrelevant to Olivier's claim. Olivier's claim is, specifically, that he invented and disclosed to Bittleston a two-winged lateral steering device, which later appeared in the Bittleston patents. Because the Court finds that Bittleston conceived of such a device first, later patents involving such a device are irrelevant.

("Bofors"). These allegations are not included in ION's counterclaim, and appear to be raised for the first time in ION's response to WesternGeco's Motion for Summary Judgment. Because these other unnamed co-inventors are not asserting inventorship counterclaims, they are of little relevance to this dispute.

In its response to WesternGeco's motion for summary judgment, ION attempts to bring these new characters into the case with a request to amend its counterclaim. ION does not even attempt to assert, let alone to prove, good cause for its untimely proposed amendment, sought nearly two years after the parties' deadline to amend pleadings and over a year after the parties' original trial date. (Doc. No. 22, 166-2.) A party seeking to amend pleadings after a scheduling deadline "must show that, despite diligence, he could not have reasonably met the scheduling deadline." *See RE/MAX Int'l Inc. v. Trendsetter Realty, LLC*, 655 F. Supp. 2d 679 694 (S.D. Tex. 2004). For motions to amend after a deadline, the Rule 16(b) "good cause" standard governs. ION has not even alleged what good cause might exist for allowing it to amend its pleadings at this late date. Accordingly, ION's request for leave to amend its counterclaims is denied, and the Court does not consider the role played by alleged co-inventors who are not involved in this litigation.

4. Inequitable Conduct and Antitrust Claims

WesternGeco asks the Court to grant summary judgment on ION's assertion of inequitable conduct. "Inequitable conduct is an equitable defense to patent infringement that, if proved, bars enforcement of a patent." *Therasense, Inc. v. Becton Dickinson & Co.*, 649 F.3d 1276, 1285 (Fed. Cir. 2011). In its Answer, ION alleges three bases for a finding of inequitable conduct: (1) Bittleston and/or the prosecuting patent attorney for

the Bittleston patents intentionally and deliberately failed to disclose Olivier's device as prior art to the claimed invention; (2) Bittleston, Hillesund, and/or the prosecuting patent attorney intentionally and with deceptive intent failed to identify Olivier as an inventor; and (3) the prosecuting attorney for the Zajac Patent blatantly misrepresented the prior art. ION has not disputed WesternGeco's contention that, if summary judgment on ION's inventorship counterclaim is granted, then summary judgment on ION's and Fugro's derivative affirmative defenses and counterclaims related to inventorship must be granted, as well. Because the Court concludes that Olivier is not a joint inventor of the Bittleston patents, it finds that WesternGeco's motion must also be granted as to ION's inequitable conduct and antitrust claims to the extent those claims relate to inventorship of the Bittleston patents. Thus, WesternGeco's Motion for Summary Judgment on inventorship must be granted.

IV. SUMMARY JUDGMENT ON ION'S COUNTER-CLAIM OF INFRINGEMENT OF THE '992 PATENT

WesternGeco moves for summary judgment on ION's counterclaim for infringement of the '992 patent (Doc. No. 6 ¶¶ 99-105). ION's counterclaim alleges that WesternGeco's "Q-Fin" Device infringes on claims 1 and 13 of the '992 patent. The determination of whether an accused product infringes a patent claim involves two steps: (1) the Court must construe the claim terms, as a matter of law, to determine their proper scope; and (2) the claim, as properly construed, must be compared to the accused device. *Markman v. Westview Instr., Inc.*, 52 F.3d 967, 976 (Fed. Cir. 1995), *aff'd* 517 U.S. 370 (1996).

A. Claim Construction

1. The Court's Construction

The Court completed the first step of this analysis when it construed claims 1 and 13 in its Claim Construction Order. (Doc. No. 120.) The Court construed the first limitation of claim 1, which requires "a body…mountable to the underwater cable," as well as claim 13, which requires "a body connectable to the underwater cable." In the Claim Construction Order, the Court construed both of these limitations to mean "a body attached externally to the underwater cable." (Doc. No. 120 at 36-40.) In response to WesternGeco's Motion for Summary Judgment, ION asks the Court to reconsider the Court's construction of claim 13.

2. Request for Reconsideration

ION urges that the Court erred in its construction of claim 13, because the Court construed two different phrases—"a body…mountable to the underwater cable" (claim 1) and "a body connectable to the underwater cable" (claim 13)—to have identical meanings. ION argues that the Court's construction of claim 13 as "a body attached externally to the underwater cable" is incorrect. The correct construction, ION urges, is "a body capable of being joined, fastened, or linked to the underwater cable" (Doc. No. 184 at 19); with such a construction, ION believes that WesternGeco's infringement of the '992 patent is clear, because both devices are undeniably capable of being joined, fastened, or linked to the underwater cable.

The Federal Rules of Civil Procedure do not specifically provide for motions for reconsideration. *Shepherd v. Int'l Paper Co.*, 372 F.3d 326, 328 (5th Cir. 2004); *see also St. Paul Mercury Ins. Co. v. Fair Grounds Corp.*, 123 F.3d 336, 339 (5th Cir. 1997). Reconsideration motions are generally analyzed under the standards for a motion to alter or amend judgment under Rule 59(e) or a motion for relief from a judgment or order

under Rule 60(b). *Hamilton Plaintiffs v. Williams Plaintiffs*, 147 F.3d 367, 371 n. 10 (5th Cir. 1998). Rule 59(e) governs when the reconsideration motion is filed within 28 days of the challenged order, or when the motion seeks reconsideration of an interlocutory order. *Amegy Bank Nat. Ass'n v. Monarch Flight II, LLC*, 2011 WL 6091807, at *5 (S.D. Tex. Dec. 7, 2011) (citing *Steadfast Ins. Co. v. SMX 98, Inc.*, 2009 WL 3190452, at *4-5 (S.D. Tex. Sept. 28, 2009). As claim construction is an interlocutory order, the Court must consider ION's request under Rule 59(e).

A motion to alter or amend under Rule 59(e) "must clearly establish either a manifest error of law or fact or must present newly discovered evidence and cannot be used to raise arguments which could, and should, have been made before the judgment issued." *Rosenzweig v. Azurix Corp.*, 332 F.3d 854, 863–64 (5th Cir. 2003) (citation omitted) (internal quotation marks omitted). Indeed, a Rule 59(e) motion "is not the proper vehicle for rehashing evidence, legal theories, or arguments that could have been offered or raised before the entry of judgment." *Templet v. HydroChem Inc.*, 367 F.3d 473, 478-79 (5th Cir. 2004) (citing *Simon v. United States*, 891 F.2d 1154, 1159 (5th Cir. 1990). The Fifth Circuit warns that reconsideration under Rule 59(e) is an "extraordinary remedy" that courts should use sparingly. *Templet v. HydroChem Inc.*, 367 F.3d 473, 479 (5th Cir. 2004).

In its request for reconsideration, ION does not address the Rule 59(e) factors, nor does it cite to evidence that was unavailable before the entry of judgment. Similarly, ION fails to allege any manifest error of law or fact. Rather, ION's request for reconsideration, submitted over fifteen months after the Court's Claim Construction Order, suggests simply that the Court was mistaken in its claim construction. As ION

only raises arguments that the Court has already considered, and rejected, its request fails to meet the Rule 59(e) requirements, and must be denied. The Court thus moves to the second step of the analysis, and compares the claim, as construed in the Claim Construction Order, to the accused device.

B. Comparison of the Claim as Construed to the Accused Device

In conducting the second step of the analysis, the Court considers both whether the Q-Fin infringes on the '992 patent literally, and whether it infringes under the doctrine of equivalents. *Frazier v. Wireline Solutions, LLC*, 2010 WL 5067671, at *2 (S.D. Tex. Dec. 6, 2010) (quoting *MicroStrategy Inc. v. Bus. Objects, S.A.*, 429 F.3d 1344, 1352 (Fed. Cir. 2005). ("An accused device infringes 'if it incorporates every limitation of a claim, either literally or under the doctrine of equivalents.'"). WesternGeco urges that a comparison of the '992 claim to the Q-Fin shows that the Q-Fin infringes neither literally nor under the doctrine of equivalents.

1. Literal Infringement

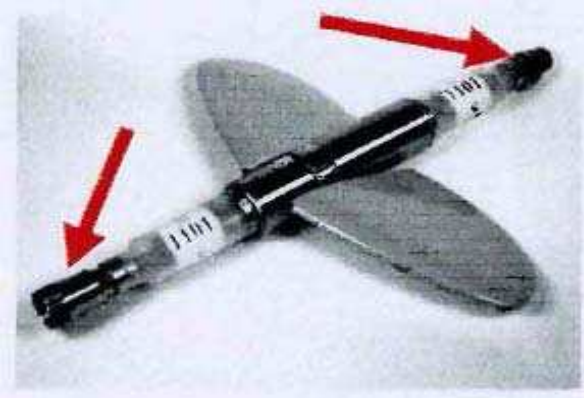
"To establish literal infringement, all of the elements of the claim, as correctly construed, must be present in the accused system." *Networld, LLC v. Centraal Corp.*, 242 F.3d 1347, 1353 (Fed. Cir. 2001). When there is no dispute as to the structure of an accused product, which there is not in this case, the question of infringement "collapses to one of claim construction and is thus amenable to summary judgment." *Athletic Alternatives, Inc. v. Prince Mfg., Inc.*, 73 F.3d 1573, 1578 (Fed. Cir. 1996). In order to find literal infringement of the '992 patent, the Court must find that the Q-Fin includes "a body attached externally to the underwater cable."

WesternGeco contends that there are two different approaches to streamer cable devices: the "in-line" approach, and the "external" approach. According to WesternGeco, the Q-Fin takes an in-line approach, whereas the '992 device is external. Because the two take contradictory approaches, WesternGeco argues, the Q-Fin cannot *literally* infringe upon the '992 patent. ION offers two arguments in support of its contention that the Q-Fin does literally infringe on the '992 patent: (1) the Q-Fin is a body attached externally to the underwater streamer cable, and thus literally infringes; and (2) even assuming that the Q-Fin itself is not "attached externally," part of the Q-Fin body, called the "wing yoke," is attached externally, rendering the entire device literally infringing.

a. Whether the Q-Fin itself is attached externally

To determine whether the Q-Fin is attached externally, the Court must consider both the Q-Fin technology and what it means for a streamer positioning device to be "attached externally." The streamer itself, into which the Q-Fin connects, "is composed of 100m sections, which [are] equipped with molded [sic] and hydrophones." (Schlumberger Software and Systems Summit at WG680541, Doc. No. 184-E.) Thus, a streamer cable is made up of sections of cable that are connected together. (Rau Dep. 84:16-17, Jan. 13, 2010, Doc. No. 184-F.) The Q-Fin is "fitted every 400m along the seismic streamer." (*Id.*) In other words, the Q-Fin is connected between two sections of the cable, rendering the Q-Fin a link or bridge between one 400 meter section of a streamer cable and the next. The parties do not disagree about how the Q-Fin actually attaches to streamer cables: both admit that the two ends of the Q-Fin essentially "plug in" at various points along the streamer cable. What divides the parties is whether the Q-Fin, in light of the above description, is "attached externally." The parties dispute the

proper definition of the term "attached externally," which has not been construed by the Court. Because there is no dispute as to the structure of the Q-Fin, the question of infringement "collapses to one of claim construction and is thus amenable to summary judgment." *Athletic Alternatives*, 73 F.3d at 1578.



Q-Fin with end connectors

Q-Fin connected to a cable

Brien Rau, a mechanical engineer at DigiCOURSE during the relevant time period and a named inventor of the '992 patent, testifies that an "externally attached" device is any device that is outside the streamer cable. (Rau. Dep. 82:13-83:3.) An internally attached device, he explains, is a device that is located "within the skin of the cable." (*Id.* at 82:13-83:22.) A device inserted between streamer cables, Rau indicates, would be considered external to the streamer, as it is not physically located inside the streamer cable. (*Id.* at 84:10-21.) ION argues that, because the Q-Fin is a device inserted between streamer cables, it is attached externally to the streamer cables. In rejecting WesternGeco's contention that an "in-line" device is, by definition, *not* external, ION also points to the deposition of David Miner, an engineering manager for DigiCOURSE during the relevant time period, who indicates that "[a] device can be both attached externally and 'in-line.'" (Miner Dep. 53:25-54:13, May 11, 2010, Doc. No. 184-G.) ION

concludes that the Q-Fin is externally attached because it is not "located or positioned within the skin or outer surface of the cable." (Doc. No. 184 at 9.)

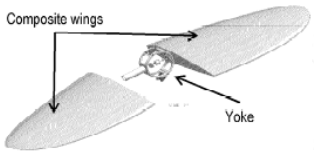
ION's efforts to demonstrate that an "in-line" device may be "externally attached" conflict with statements in ION's own business plan, which explicitly distinguish Q-Fin as "in-line," and therefore *not* external. (Doc. No. 168-11 at ION16366 ("[WesternGeco's] device is an in-line device . . . . The DigiFIN device is unique because it is an external device . . . .").) In referring to another potentially competitive device not at issue in this case, the "Sercel," ION's business plan also distinguishes between "in-line" and external devices, indicating that "[i]t is not known if this device will be an external device or an in-line device." (*Id.*) This record evidence from ION's own business plan contradicts the self-serving statements in the affidavits of David Miner and Brien Rau. *See United States v. Lawrence*, 276 F.3d 193, 197 (5th Cir. 2001) (quoting *Munitrad Sys., Inc. v. Standard & Poor's Corp.*, 672 F.2d 436, 440 (5th Cir. 1982) (finding that self-serving statements in an affidavit were "not the type of 'significant probative evidence' required to defeat summary judgment"). Moreover, a close reading of Rau's deposition indicates that he is basing his interpretation of "externally attached" on his own, potentially misguided understanding of an internal device (Rau Dep. 82:10-21) ("I say that because *my understanding*—and—well, *my understanding* of an internal cable device is something that is within the cable. So, it's within the—within the skin of the cable, such as the—the coupler.") (emphasis added). The Court concludes that Rau's personal understanding of these terms—for which he offers no support—is unpersuasive in light of contradictory record evidence taken from ION's own business plan.

After considering the evidence, the Court finds that ION's interpretation of the term "externally attached" cannot be correct. "External" here is not meant to connote all devices "not within the skin" of the streamer cable; if that were the meaning, all streamer positioning devices would be external, and ION's business plan would have no reason to distinguish certain devices as "in-line" and others as "externally attached." In light of the distinction drawn in ION's own business plan and the deposition testimony of ION's own witnesses describing how the two devices function, the Court understands "external" to mean a device attached *onto* the streamer cable, rather than one inserted *into* it. The '992 device is attached externally, wrapped onto the outside of the cable, whereas the Q-Fin is inserted into the cable on either end, rendering it an in-line part of the device.

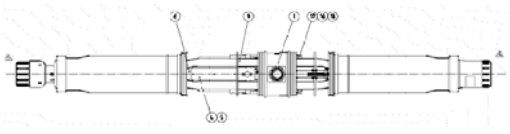
b. Whether a Part of the Q-Fin Body is Attached Externally

ION argues that, even if the entire Q-Fin is not found to be attached externally, at least a part of the Q-Fin body, the "wing yoke," is attached externally. The wing yoke is a part of the Q-Fin device that attaches removable wings to the body of the Q-Fin. (Doc. No. 120-E, at WG680541.) WesternGeco admits that the wing yoke itself could be considered to be "attached externally," as it is removable from the Q-Fin body. (Doc. No. 168 at 12.) However, WesternGeco maintains that whether the wing yoke is attached externally is irrelevant, because the wing yoke is not a part of the Q-Fin body, and the '992 patent applies only where the *body* is attached externally to the underwater cable.

Q-Fin body, with wings



Q-Fin wings and yoke



Q-Fin body

Evidence submitted by both parties supports WesternGeco's position. Evidence on which ION relies distinguishes between the body and the wings, indicating that "[t]he Q-Fin is a 1-meter long insert with a titanium body *and* a pair of wings mounted on a removable wing yoke." (Doc. No. 184 at 13 (quoting Doc. No. 184-E at WG680541) (emphasis added).) WesternGeco's Q-Fin product documentation also favors distinguishing the wing yoke from the body, listing the "wing unit" and the "Q-Fin body" as "two independent areas." (Doc. No. 196-36 at WG22225.) The Q-Fin Project Overview similarly differentiates the wing yoke and the Q-Fin body, stating that the "wing yoke is the part of the wing unit that holds the wings together on the body of the Q-Fin." (Doc. No. 196-37 at WG22172.) A Q-Fin Business Plan likewise implies that the wing yoke and the body are separate entities, explaining that "[t]he choice and combination of the chosen materials will not lead to corrosion of the wing yoke *or* that of the Q-Fin body." (Doc. No. 196-38 at WG22115 (emphasis added).) Finally, a Q-Fin maintenance manual distinguishes between "corrosion on the Q-Fin wing metal parts (yokes, etc.)" and "corrosion on the Q-Fin body itself"). (Doc. No. 196-39 at WG15436.) Nothing submitted by ION contradicts this body of evidence establishing that the wing yoke is not a part of the Q-Fin body. Because the evidence makes clear that the wing yoke is not part of the Q-Fin body, the fact that it may be externally attached does not render the Q-fin body itself externally attached. The Q-Fin therefore does not literally infringe on the '992 Patent.

2. Infringement under the Doctrine of Equivalents (the "doctrine")

Even if a device does not literally infringe a claim, it "may nonetheless infringe under the doctrine of equivalents if every element in the claim is literally or equivalently

present in the accused device." *Sage Prods., Inc. v. Devon Indus., Inc.*, 126 F.3d 1420, 1423 (Fed. Cir. 1997). "The doctrine evolved in recognition of the fact that '[t]he language in the patent claims may not capture every nuance of the invention or describe with complete precision the range of its novelty." *Freedman Seating Co. v. Am. Seating Co.*, 420 F.3d 1350, 1357-58 (Fed. Cir. 2005) (quoting *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722, 731 (2002)). Ultimately, the doctrine of equivalents is meant to prevent "the unscrupulous copyist [from making] unimportant and insubstantial changes and substitutions in the patent which, though adding nothing, would be enough to take the copied matter outside the claim, and hence outside the reach of law." *Graver Tank & Mfg. Co., Inc., et al. v. Linde Air Prods. Co.*, 339 U.S. 605, 607 (1950). The doctrine allows courts to consider whether "two devices do the same work in substantially the same way, and accomplish substantially the same result." *Id.* at 608 (quoting *Union Paper-Bag Mach. Co. v. Murphy*, 97 U.S. 120, 125 (1877)).

In order to proceed with a claim under the doctrine, a patent holder must show that the accused device includes the equivalent of each claim limitation. *Dawn Equip. Co. v. Ky. Farms, Inc.*, 140 F.3d 1009, 1015 (Fed. Cir. 1998). Here, the only claim limitation at issue is the requirement that the device include "a body attached externally to the underwater cable." If the Court concludes that no reasonable juror could find that the Q-Fin includes the equivalent of "a body attached externally to the underwater cable," then WesternGeco's motion for summary judgment must be granted. *Sage Prods.*, 126. F.3d at 1423 ("Although equivalence is a factual matter normally reserved for the fact finder, the trial court should grant summary judgment in any case where no reasonable fact finder could find equivalence.").

a. Equivalence

In considering equivalence, courts often look at whether the accused product "performs substantially the same function in substantially the same way with substantially the same result as each claim limitation in the patented product." *Crown Packaging Tech., Inc. v. Rexam Beverage Can Co.*, 559 F.3d 1312 (Fed. Cir. 2009) (citing *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 39-40 (1997)). WesternGeco argues that the doctrine of equivalents does not apply in this case because the accused device contains the antithesis of the claimed structure, *Planet Bingo, LLC v. GameTech Int'l, Inc.*, 472 F.3d 1338, 1345 (Fed. Cir. 2006), and because application of the doctrine would negate structural and functional limitations contained in the claim. *Sage*, 126. F.3d at 1424.

i. Antithesis of the claimed structure

The doctrine of equivalents does not apply where the accused device contains "the antithesis of the claimed structure." *Planet Bingo*, 472 F.3d at 1345. WesternGeco argues that this exception[7] prevents the application of the doctrine in this case, because the '992 patent is limited to devices with "a body attached externally to the underwater cable" (Doc. No. 120 at 38), whereas the Q-fin is an in-line device. These two approaches, WesternGeco urges, are antithetical to one another. ION responds that "attached externally to" is not the opposite of "in-line." ION urges that an "insert section," like the Q-Fin, is not the opposite of external attachment, but rather is a method of attaching a device externally. The Court does not find either party's argument

[7] This is not technically an "exception" to the doctrine, but the Court adopts the parties' use of this language for clarity. Plainly, one invention cannot be the "equivalent" of another if it is also the antithesis of it. As such, the "antithesis" rule seems less like an exception to the doctrine and more like an example of its operation.

particularly persuasive. ION simply reiterates its earlier argument that an in-line device can be externally attached; however, as the Court has concluded, these two methods of attachment are different. Similarly, WesternGeco has failed to convince the Court that the two methods are antithetical. The two are not the same, clearly, but the Court is not satisfied that they are opposites. As to this argument, then, the Court finds that a genuine issue of material fact remains.

ii. Vitiation of Claim language

The doctrine of equivalents "cannot be used to erase 'meaningful structural and functional limitations of the claim on which the public is entitled to rely in avoiding infringement.'" *Conopco, Inc. v. May Dep't Stores Co.*, 46 F.3d 1556, 1562 (Fed. Cir. 1994), *cert. denied*, 514 U.S. 1078 (1995) (quoting *Pennwalt Corp. v. Durand-Wayland, Inc.*, 833 F.2d 931, 935 (Fed. Cir. 1987) (en banc); *see also Warner-Jenkinson Co., Inv. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 29 (1997) ("It is important to ensure that the application of the doctrine . . . is not allowed such broad play as to effectively eliminate [an] element in its entirety."). In determining whether a finding of infringement under the doctrine of equivalents would vitiate a particular claim element, courts "must consider the totality of the circumstances of each case and determine whether the alleged equivalent can be fairly characterized as an insubstantial change from the claimed subject matter without rendering the patent meaningless." *Freedman Seating*, 420 F.3d at 1359. As a result, patentees who claim their invention narrowly may not be able to assert infringement under the doctrine of equivalents in many cases, "even though the patentee might have been able to claim more broadly." *Sage*, 126 F.3d at 1424. "If it were

otherwise, then claims would be reduced to functional abstracts, devoid of meaningful structural limitations on which the public could rely." *Id.*

WesternGeco argues that expanding the scope of the '992 patent to cover in-line devices would effectively eliminate the limitation, as construed by the Court, that the '992 is "a body attached externally to the underwater cable." (Doc. No. 120.) As the Court has concluded, the Q-Fin's in-line design distinguishes it from the external attachment method of the '992 patent. Thus, a finding that the Q-Fin and the '992 are equivalents would effectively eliminate an element—"a body attached externally"—which this Court has found critical to the patented device. (The Court explained in its Claim Construction Order that "a body attached externally to the streamers which receives power through inductive coupling is a critical element of the patented device." (Doc. No. 120 at 40).) As in *Sage*, WesternGeco's accused device "achieves a similar result [as the claimed device] . . . but it does so by a different arrangement of elements." 126 F.3d at 1425. The absence in the accused device of an element—"a body attached externally"—on which the public was entitled to rely makes clear that no reasonable fact finder could find infringement under the doctrine of equivalents in this case. Thus, the Court finds that WesternGeco's Motion for Summary Judgment on ION's Counterclaim of Infringement of the '992 Patent must be granted.

V. MSJ ON ION'S INEQUITABLE CONDUCT DEFENSE AND ANTITRUST COUNTERCLAIM REGARDING ZAJAC '038 PATENT

WesternGeco moves for summary judgment on ION's fourth affirmative defense and eleventh counterclaim, as well as Fugro's fourth affirmative defense and second counterclaim. In these affirmative defenses and counterclaims, ION and Fugro allege

inequitable conduct before the PTO during the prosecution of United States Patent No. 6,691,038 (the "Zajac '038 patent").

WesternGeco's Complaint in this case alleges willful infringement of a number of patents, including the Zajac '038 patent. In its Answer, ION asserts an affirmative defense that the Zajac '038 patent is unenforceable due to inequitable conduct before the PTO. (Doc. No. 6.) ION also filed a counterclaim, alleging an antitrust violation based on WesternGeco's assertion of a patent obtained through the same allegedly inequitable conduct. (*Id.*) After Fugro was joined in this case, it filed a similar affirmative defense and a declaratory judgment counterclaim alleging unenforceability of the Zajac '038 patent. (Doc. No. 165.)

A. Background

The Zajac '038 patent, titled "Active Separation Tracking and Positioning Systems for Towed Seismic Arrays," is based on United States Patent Application No. 09/882,952, filed June 15, 2001. (Doc. No. 169-1 at WG1.) The patent claims a "tracking and positioning system" for controlling arrays of marine streamers towed by seismic vessels. (*Id.* at WG13.) G. Michael Roebuck, the attorney prosecuting the patent application on behalf of WesternGeco, filed an Information Disclosure Statement ("IDS") on January 14, 2002, which disclosed Patent Cooperation Treaty Publication No. WO 00/20895 ("the '895 publication" or the "Hillesund publication") as a potential prior art reference. (Doc. No. 169-2 at WG147-WG48.) The '895 publication discloses a "Control System for Positioning of Marine Seismic Streamers" (Doc. No. 169-3 at WG25219), as well as streamer positioning devices that are "vertically and horizontally steerable" (*id.* at WG25226-WG25227). The '895 publication does not mention a

"tracking and positioning system," nor does it refer to "array geometry." The PTO Examiner indicated that he reviewed the '895 publication. (Doc. No. 169-2 at WG148.) The Examiner also reviewed the Zajac application itself, which discusses the '895 publication as prior art. (*Id.* at WG68-WG69.)

On March 31, 2003, the PTO Examiner issued a rejection of the pending claims of the Zajac application. His rejection was based on the fact that the '895 publication anticipated those claims.[8] (*Id.* at WG122-WG145.) In response to this rejection, Mr. Roebuck amended the patent's abstract and the claim. (*Id.* at WG156-WG171.) In addition, in the "remarks" section, Roebuck asserted that the claims are not invalidated by the '895 publication. (*Id.*; Roebuck Dep. 35:12-17, Jan. 20, 2010, Doc. No. 183-J.) In his remarks, Roebuck noted that the '895 publication was already discussed and distinguished in the application itself; he explained that the '895 publication did not anticipate the claims in the Zajac application, because it did not disclose every limitation of the pending claims. (*Id.* at WG155-WG183.) In response to Roebuck's amendment and arguments, the Examiner withdrew his rejection, and issued a Notice of Allowance on July 21, 2003. (*Id.* at WG196-WG199.) The Zajac '038 patent issued on February 10, 2004. (Doc. No. 169-1 at WG1.) ION's fourth affirmative defense and eleventh counterclaim are based on the assertion that, when Roebuck responded to the Examiner's non-final rejection, he deliberately and intentionally misrepresented the "true teaching of the ['895 publication]." (Doc. No. 6 ¶¶ 51-52, 122.) Fugro's fourth affirmative defense and second counterclaim are based on the same alleged inequitable conduct. (Doc. No. 165 ¶¶ 82-84, 105-107.)

[8] "A patent is invalid for anticipation if a single prior art reference discloses each and every limitation of the claimed invention." *Schering Corp. v. Geneva Pharm.*, 339 F.3d 1373, 1377 (Fed. Cir. 2003).

B. Inequitable Conduct Legal Standard

Patent applicants "have a duty to prosecute patent applications in the Patent Office with candor, good faith, and honesty." *Honeywell Int'l Inc. v. Universal Avionics Sys. Corp.*, 488 F.3d 982, 999 (Fed. Cir. 2007). A breach of this duty constitutes inequitable conduct, and renders a patent unenforceable. *Id.* Such a breach can include "affirmative misrepresentations of a material fact, failure to disclose material information, or submission of false material information, coupled with an intent to deceive." *Innogenetics, N.V. v. Abbott Labs.*, 512 F.3d 1363, 1378 (Fed. Cir. 2008) (citations omitted) (internal quotation marks omitted). "Thus, to establish inequitable conduct, a challenger must show two things: (1) the patent applicant made an affirmative misrepresentation of material fact, failed to disclose material information or submitted false material information; and (2) the patent applicant did so with an intent to deceive the PTO." *Astrazeneca Pharm. LP v. Teva Pharm. USA*, 567 F. Supp. 2d 683, 691 (D. N.J. 2008) (citing *Cargill, Inc. v. Canbra Foods, Ltd.*, 476 F.3d 1359, 1363 (Fed. Cir. 2007). Both elements must be proven by clear and convincing evidence. *Scientific, Inc. v. R.J. Reynolds Tobacco Co.*, 537 F.3d 1357, 1365 (Fed. Cir. 2008). Once both elements have been proven, "the district court must still balance the equities to determine whether the applicant's conduct before the PTO was egregious enough to warrant holding the entire patent unenforceable." *Id.*

C. Analysis

1. Material Misrepresentation

ION contends that Roebuck made the following misrepresentation about the '895 publication to the PTO:

> [The publication] does not disclose positioning a streamer vertically and horizontally relative to a second streamer in the array, as claimed. **[The publication] teaches only horizontal steering** (p.6, line 20) **of streamers. Vertical position is monitored but not steered as described** . . . on p.8, ll. 6-10, "the global control system 22 will typically acquire the following…the location of the birds in the horizontal plane…" Thus Hillesund does not anticipate claim 1.

(Response to Office Action, March 31, 2003, Doc. No. 183-I at WG172-WG173 (emphasis added).) ION urges that the emphasized portions of this statement are affirmative misrepresentations of fact. ION contends that the '895 publication "unambiguously teaches both vertical and horizontal steering" (Doc. No. 183 at 7); ION points to a number of statements in the '895 publication referring to the birds as "horizontally and vertically steerable," or otherwise referring to vertical and horizontal capabilities. (Doc. No. 183-H at p. 6 ll. 1-7, p. 7 ll. 11-19, p. 9 11. 6-13, p. 10 ll. 7-12.) These references, ION argues, show that Roebuck's statement was demonstrably false, or at least a gross mischaracterization of the '895 publication.

WesternGeco offers two arguments in support of its contention that Roebuck's comments do not give rise to an inequitable conduct charge: First, in its Motion for Summary Judgment (Doc. No. 169), WesternGeco urges that Roebuck's discussion of disclosed prior art was mere attorney argument, and that it therefore is not a misrepresentation of material fact.[9] Then, in its Reply in Support of the Motion for

[9] ION seems to read WesternGeco's first argument to assert that an attorney's misrepresentations in the process of prosecuting a patent can never be subject to a charge of inequitable conduct. To the extent that WesternGeco intended to make such an argument, the Court notes that it is incorrect as a matter of law. While an attorney's *argument* made in the process of prosecuting a patent cannot be a material misrepresentation, attorneys who materially misrepresent *facts* while making such an argument do expose themselves, and their clients, to liability for inequitable conduct. *Young v. Lumenis, Inc.*, 492 F.3d 1336, 1349 (Fed. Cir. 2007) (considering attorney's statements and concluding that they were not actionable because they were not "demonstrably false," and instead, that they represented only the patent holder's interpretation of the prior art); *see also Life Techs., Inc. v. Clontech Labs., Inc.*, 224 F.3d 1320, 1326 (Fed. Cir. 2000) (statement was not a misrepresentation because it "did not contain any factual assertions that

Summary Judgment (Doc. No. 198), WesternGeco shifts its argument slightly, urging that Roebuck's remarks were not "mischaracterizations," and that, even if they were, they are not actionable as inequitable conduct, because they were not "material." In considering whether a genuine issue of material fact exists as to whether Roebuck's remarks were material misrepresentations of fact, the Court must look at (1) whether those remarks were inaccurate; (2) if inaccurate, whether the remarks were factual, or simply attorney argument; and (3) if factual misrepresentations were made, whether the misrepresentations were material. A finding that no genuine issue of material fact exists as to any of these factors would require a grant of summary judgment to WesternGeco. Because the Court concludes that Roebuck's statements were mere attorney argument and were not material, it does not need to consider the more technical question of whether Roebuck's statements actually misrepresented the '895 publication.

2. Attorney argument

ION presents a comprehensive argument as to why Roebuck's alleged misrepresentation cannot be excused as mere attorney argument. ION cites *Ring Plus, Inc. v. Cingular Wireless Corp.*, 614 F.3d 1354, 1361 (Fed. Cir. 2010), for the proposition that an attorney's genuine misrepresentation about the teachings of the prior art is "outside the bounds of permissible attorney argument" and may form the basis for an inequitable conduct defense." In citing to *Ring Plus* and other cases finding attorney misconduct based on misrepresentations, ION misses a key factor—present in this case, and absent in those cases—that establishes that Roebuck's remarks are to be considered mere attorney argument, rather than factual representations (or misrepresentations, as the

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could give rise to a finding of misrepresentation"). Thus, the Court must consider, as a part of this analysis, whether Roebuck's remarks were assertions of fact, or whether they were mere attorney argument.

case may be).[10] Here, the prior art about which Roebuck argued was presented to the patent examiner, who was then free to either accept or reject Roebuck's characterization of the prior art.

In *Young v. Lumenis, Inc.*, 492 F.3d 1336, 1348 (Fed. Cir. 2007), the attorney prosecuting a patent made three misstatements to the PTO. The Federal Circuit concluded that these misstatements were not affirmative misstatements of material fact, because the examiner "had the [prior art reference] to refer to during the reexamination proceeding and initially rejected claim 1 based on that reference. [The prosecuting attorney] argued against the rejection, and the examiner was free to reach his own conclusions and accept or reject [the prosecution attorney's] arguments." 492 F.3d at 1349. The Federal Circuit concluded, on that basis, that the prosecuting attorney's comments "consisted of attorney argument and an interpretation of what the prior art discloses," which cannot constitute affirmative misrepresentations of material fact. *Id.* The same result was reached in *Innogenetics v. Abbott Laboratories*, which held that, because the prior publication "had been submitted for the patent examiner to examine herself, [the examiner] was free to accept or reject the patentee's arguments distinguishing its invention from the prior art." 512 F.3d at 1379,

In *World Wide Stationery Mfg. Co. Ltd. v. U.S. Ring Binder, L.P.*, 632 F. Supp. 2d 912 (E.D. Mo. 2009), the court applied *Young* and concluded that, "where the patent

[10] The Examiner's independent review of the prior art distinguishes this case from *Ring Plus, Inc. v. Cingular Wireless Corp.*, 614 F.3d 1354 (Fed. Cir. 2010), the primary case relied upon by ION. In *Ring Plus*, the references that were allegedly mischaracterized by the patentee were not listed on the face of the asserted patent. (Doc. No. 198-11.) Moreover, in contrast to this case, there is nothing to suggest that the prior art references in *Ring Plus* were ever disclosed to the PTO in an IDS, as they were never cited by the Examiner during prosecution. 641 F.3d at 1361-62. Thus, the examiner in *Ring Plus* was unable to "accept or reject the patentee's arguments distinguishing its invention from the prior art," *Innogenetics*, 512 F.3d at 1379, and instead was forced to rely upon the patentee's characterizations. In such a scenario, a prosecuting attorney's representations could properly be characterized as factual misrepresentations.

examiner had the prior art reference and had rejected one of the patent's claims based on that reference," it was clear that the examiner was free to accept or reject the prosecuting attorney's interpretation of what the prior art disclosed. 632 F. Supp. 2d at 915-16. In *Astrazeneca*, the court similarly concluded that "[t]here could have been nothing in [the prosecuting party's] mere characterization of a reference already provided the to [sic] examiner that could have left the examiner with the impression that the examiner did not need to conduct any further…investigation." 567 F. Supp. 2d at 700 (internal quotation marks omitted).

As in *Innogenetics*, *Young*, *World Wide Stationery*, and *Astrazeneca*, it is undisputed that the prosecuting attorney in this case provided the prior art that he was interpreting, the '895 publication, to the PTO Examiner. The Examiner was free to consult the publication in its entirety, and to draw his own conclusions. *Cf. Astrazeneca*, 567 F. Supp. 2d at 700 ("[I]f [the patentee's] characterization was inconsistent with the examiner's understanding of the reference based on his own review of the abstract, it would have served only to highlight to the examiner that more investigation or translation was necessary."). In situations such as this, where the prior art being interpreted by the prosecuting attorney has been provided to the Examiner in full, the attorney's characterizations of the prior art can be considered only attorney argument, and therefore cannot give rise to a cause of action for inequitable conduct.

3. Materiality

Even if Roebuck's remarks could be characterized as factual misrepresentations, they fail to meet the materiality requirement, and therefore cannot give rise to a charge of inequitable conduct. The Federal Circuit recently recognized that its previously "low

standards for intent and materiality have inadvertently led to many unintended consequences," *Therasense, Inc. v. Becton, Dickinson and Co.*, 649 F.3d 1276, 1290 (Fed. Cir. 2011), including "the habit of charging inequitable conduct in almost every major patent case," *id.* at 1289 (internal quotation marks omitted). In response to this perceived problem, the Federal Circuit "tighten[ed] the standards for finding both intent and materiality in order to redirect a doctrine that has been overused to the detriment of the public." *Id.* at 1290. Now, "the materiality required to establish inequitable conduct is but-for materiality," that is, proof that the patent would not have issued but for the affirmative misrepresentation. *Id.* at 1291.

The Examiner's independent reliance on the prior art in this case makes clear that any alleged misrepresentation by Roebuck cannot have been the but-for cause of the patent's issuance. For example, the examiner initialed "Hillesund" on the IDS, indicating his review of the reference. He also discusses the teachings of the '895 publication for seventeen pages in his initial rejection of the application. (Doc. No. 169-2 at WG127-WG144, WG148). The Examiner even cites, in his own review, some of the very paragraphs of the '895 publication that ION and Fugro argue contradict Roebuck's remarks,[11] indicating that he independently considered those portions of the '895 publication. The Examiner's extensive knowledge of the '895 publication, as evidenced by his own references to the prior art, indicate that any mischaracterization by Roebuck could not have been a but-for cause of the patent's issuance.

4. Intent to Deceive

[11] *Compare* Doc. No. 169-2 at WG129, WG137 (citing the '895 publication at 7, ¶ 2), WG130, WG132, WG135, WG138-141 (citing the '895 publication at 8 ¶ 1), *with* Doc. No. 184 at 8 (ION's citation to the '895 publication at 7 ¶ 2), *and* Doc. No. 165 ¶ 84 (Fugro's Answer, quoting the '895 publication at 8 ¶ 1).

Because no reasonable jury could find that Roebuck made an affirmative misrepresentation of material fact, the Court does not need to consider the second element of the analysis—intent to deceive. Rather, the Court must grant summary judgment in favor of WesternGeco on both Defendants' inequitable conduct defenses.

D. Antitrust counterclaims

ION urges that "[a] patent owner or assignee that enforces a patent that was produced by fraud on the PTO loses the exemption from antitrust liability that ordinarily protects a patent holder in its enforcement efforts." *Delano Farms Co. v. Cal. Table Grape Comm'n*, 655 F.3d 1337, 1351 (Fed. Cir. 2011). To prove fraud on the PTO, the alleged infringer must prove "(1) a representation of material fact, (2) the falsity of that representation, and (3) the intent to deceive or, at least, a state of mind so reckless as to the consequences that it is held to be the equivalent of intent (scienter)." *Hydril Co. v. Grant Prideco LP*, 474 F.3d 1344, 1349 (Fed. Cir. 2007) (citation omitted) (internal quotation marks omitted). The antitrust counterclaims asserted by ION and Fugro derive from their inequitable conduct defenses. For the same reasons that the Court has rejected those defenses, it must likewise reject the related antitrust counterclaims.[12] Because the Court has concluded that summary judgment must be granted to WesternGeco as to inequitable conduct, it must grant summary judgment to WesternGeco as to ION's antitrust counterclaim and the Fugro Defendants' declaratory judgment antitrust counterclaim, as well.

VI. CONCLUSION

[12] Neither ION nor Fugro disputes that their derivative defenses and counterclaims must fail if the Court concludes, as it has, that no genuine issue of material fact remains as to inequitable conduct.

For the reasons discussed above, the Court concludes that WesternGeco's three motions for summary judgment must be **GRANTED.**

IT IS SO ORDERED.

SIGNED at Houston, Texas, on this the 21st day of February, 2012.

THE HONORABLE KEITH P. ELLISON
UNITED STATES DISTRICT JUDGE