United States District Court,
C.D. California.

ORICA EXPLOSIVES TECHNOLOGY, PTY., LTD,
v.
AUSTIN POWDER COMPANY.

No. CV 07-03337-AHM (CTx)

Aug. 21, 2008.

Matthew F. Weil, David M. Stein, Fay E. Morisseau, Jennifer Lynette Yokoyama, Tiffany M. Scurry, McDermott Will & Emery, Irvine, CA, for Plaintiff.

Gregory R. Lyons, James H. Wallace, Jr., Wiley Rein, Washington, DC, Jennifer Lynette Yokoyama, McDermott Will & Emery, Irvine, CA, for Defendants.

Proceedings: (IN CHAMBERS)

A. HOWARD MATZ**, District Judge**

Stephen Montes, Deputy Clerk.

I. *INTRODUCTION*

On October 26, 2006, Plaintiff Orica Explosives Technology, Pty., Ltd. ("Orica") filed suit in the Eastern District of Texas against Defendant Austin Powder Company for patent infringement. On May 22, 2007, the action was transferred to the docket of this Court. On June 13, 2007, Plaintiff filed a First Amended Complaint adding Lectronics LLC, Dan-Mar Company, Inc. and Special Devices Incorporated ("SDI") as defendants. On August 1, 2007, all four Defendants answered Orica's First Amended Complaint and filed counterclaims against Orica. FN1 On March 17, 2008, SDI filed a Second Amended Answer and Counterclaims against Orica.

FN1. Lectronics LLC also filed cross-claims against SDI. On September 7, 2007, Lectronics LLC voluntarily dismissed those cross-claims without prejudice.

This case involves six patents related to electronic blasting systems used in mining and construction. Orica owns four patents in dispute-United States Patent Numbers 4,986,183 ("the '183 patent"); 6,644,202 ("the '202 patent"); 5,894,103 ("the '103 patent"); and 6,443,755 ("the '755 patent"). SDI owns two patents in dispute-United States Patent Numbers 7,017,494 ("the '494 patent") and 7,054,131 ("the '131 patent"). Orica alleges that Defendant Lectronics LLC's "Accudet" and Defendant Austin Powder Co.'s "Electro-Star" products infringe Orica's patents. SDI counterclaims that Orica's "UniTronic" electronic blasting system

infringes SDI's patents.

The parties disagree about the correct construction of six different terms in five of the six patents in dispute. The Court received two sets of briefs from each party and conducted a several-hour *Markman* hearing on April 10, 2008. FN2 On April 28, the parties filed a stipulation for an agreed construction for the term "final fire countdown." That stipulation, which the Court approved on April 29, 2008, moots the need to construe the term "final fire countdown." FN3 On May 7, 2008, the parties also jointly submitted proposed edits to a "Glossary of Terms," which the Court had prepared and distributed to the parties at the *Markman* hearing. The Court has reviewed these edits and considered them, where appropriate, in this Order. The parties' agreed-to glossary is attached hereto as Exhibit A and is incorporated by reference.

FN2. At the hearing, Defendants cited two recent decisions by the Federal Circuit that the parties did not address in their briefs: O2 Micro Intern. Ltd. v. Beyond Innovation Technology Co., Ltd., 521 F.3d 1351 (Fed.Cir. Apr.3, 2008) and Computer Docking Station Corp. v. Dell, Inc., 519 F.3d 1366 (Fed.Cir. Mar.21, 2008). The Court has considered these decisions and addressed them below.

FN3. The parties stipulated that the term "final fire countdown" means "the countdown of a detonator's own firing delay."

II. *LEGAL STANDARD FOR CLAIM CONSTRUCTION*

The court, not the jury, must construe the meaning and scope of patent terms. Markman v. Westview Instruments, Inc., 52 F.3d 967, 979 (Fed.Cir.1995) (en banc), *aff'd,* 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996). In construing disputed claim terms, the court should look first to intrinsic evidence. Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed.Cir.1996). Intrinsic evidence includes the language of the claims, the specification, and the file history, if in evidence. *Id.* The claims themselves are of "primary importance, in the effort to ascertain precisely what it is that is patented." Phillips v. AWH Corp., 415 F.3d 1303, 1312 (Fed.Cir.2005) (en banc). The "words of a claim 'are generally given their ordinary and customary meaning.' " *Id.* The "ordinary and customary meaning" of a claim term is judged from the perspective of a person of ordinary skill in the art. *Id.* at 1313. Such a person "is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification." *Id.;* Vitronics, 90 F.3d at 1582 (stating that the patent specification "is always highly relevant to the claim construction analysis"). "Consistent with that general principle, ... the specification may reveal a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess. In such cases, the inventor's lexicography governs." Phillips, 415 F.3d at 1316. "In other cases, the specification may reveal an intentional disclaimer, or disavowal, of claim scope by the inventor." *Id.*

In most situations, analysis of the intrinsic evidence alone will resolve any ambiguity in a disputed claim term. Vitronics, 90 F.3d at 1583. However, extrinsic evidence "may be considered if the court deems it helpful in determining the 'true meaning of the language used in the patent claims.' " Phillips, 415 F.3d at 1318 (quoting Markman, 52 F.3d at 980). Extrinsic evidence refers to evidence that is external to the patent and its file history, such as expert testimony, inventor testimony, dictionaries, and technical treatises and articles. Vitronics, 90 F.3d at 1584. Although dictionaries are generally "less reliable than the patent and its prosecution history," the Federal Circuit has "noted the help that technical dictionaries may provide to a

court 'to better understand the underlying technology' and the way in which one of skill in the art might use the claim terms." Phillips, 415 F.3d at 1318. Accordingly, courts may freely consult dictionaries and may rely on dictionary definitions when construing claims, to the extent the dictionary definition does not contradict a definition found in the patent documents. Vitronics, 90 F.3d at 1584 n. 6. Similarly, although "conclusory, unsupported assertions by experts as to the definition of a claim term are not useful to a court," such evidence is "useful ... for a variety of purposes, such as to provide background on the technology at issue, to explain how an invention works, to 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." Phillips, 415 F.3d at 1318.

"While a trial court should certainly not prejudge the ultimate infringement analysis by construing claims with an aim to include or exclude an accused product or process, knowledge of that product or process provides meaningful context for the first step of the infringement analysis, claim construction." Wilson Sporting Goods Co. v. Hillerich & Bradsby Co., 442 F.3d 1322, 1326-27 (Fed.Cir.2006).

III. *DISCUSSION*

A. Disputed Term in Orica's '202 Patent

The parties disagree about the correct construction of the following term: "*wherein the control unit is capable of ... storing the identity data and the respective time delay period associated with each of the plurality of detonators in the memory means for subsequent transfer to the detonators*." Weil Decl. Ex. D at claim 14 (col.8, lns.63-67).

Claim 14 of the '202 patent is reproduced below, with the disputed term underlined:

14. A control unit for use in a blasting system which includes a plurality of individually identifiable detonators, the control unit having a power source that is incapable of firing the detonators and further including memory means for storing at least one time interval, means for adjusting the time intervals, means for displaying a time delay period, means for varying the displayed time delay period at least by steps with each step corresponding to the stored time interval, thereby to achieve a desired time delay period, and means for associating the desired time delay period, and means for associating the desired time delay period with a selected detector *wherein the control unit is capable of* receiving identity data from each detonator and of *storing the identity data and the respective time delay period associated with each of the plurality of detonators in the memory means for subsequent transfer to the detonators*.

Weil Decl. Ex. D at claim 14.

The parties propose the following constructions for the disputed term:

Orica's Proposed Construction	***Defendants' Proposed Construction***
The control unit stores identity data and corresponding time delay periods for the detonators so that this information can be later transferred to the detonators.	The control unit stores identity data and corresponding time delay periods for the detonators so that this information can be later transferred to the detonators by a device other than the control unit.

Both parties have agreed that the term "control unit" means "[a] device capable of communication with

detonators but whose power source is incapable of firing the detonators." The parties also agree, as evidenced by each of their proposed constructions, that "[t]he control unit stores identity data and corresponding time delay periods for the detonators so that this information can be later transferred to the detonators." Orica's proposed construction ends there, while Defendants add a restrictive clause requiring that the transfer to the detonators be performed "by a device other than the control unit." Thus, the issue here is whether this "subsequent transfer" must be performed by a device other than the control unit.

1. Orica's Arguments

Orica contends that the plain language of Claim 14 requires only that the control unit be capable of storing data "for subsequent transfer to the detonators." The claim neither identifies the device that transfers the data nor precludes the control unit from transferring the data. Orica contends that Defendants' construction improperly imports a limitation from the specification. Orica also points to language in the specification that suggests that the device transferring the data *can* be the control unit. *See* id. at col. 7, lns. 52-54 ("This table is then downloaded to a control device which may be a control unit or blaster or any other suitable device. The control device then assigns the calculated delays to the detonator identity information ....").

2. Defendants' Arguments

Defendants argue that the patent's specification establishes that while the control unit receives identity data from the detonators, it cannot be that the control unit subsequently transfers this information. Rather, it is the firing units-not the control unit-that subsequently transfer the time delay periods. Defendants rely on a specification that states that: "The memory module 34 is detachable from the control unit 32. Once the module has been disconnected from the control unit *it is possible* to connect the memory module to the firing unit 38. Firing of the detonators can then take place at any chosen time." Id. at col. 5, lns. 20-24; Figs. 1-2 (emphasis added). Defendants also assert that Orica's proposed construction subsumes the prior art embodied in the "Jullian" patent and is therefore overly broad.

3. Conclusion

The patent describes the many capabilities of a control unit. The patent describes and the parties agree that a control unit can "record" identity data for each detonator. A control unit can also "store" identity data. In addition, a control unit can "assign" data to the respective detonators. The question here is whether the control unit can "transfer" this data to the detonators. Claim 14 does not answer this question. Defendants argue that, based on the specification, it is the firing units that transfer this data. However, Defendants' contention runs up against the Federal Circuit's admonition in *Phillips* against "importing limitations" from the specification. In *Phillips,* the Federal Circuit advised that:

[A]lthough the specification often describes very specific embodiments of the invention, we have repeatedly warned against confining the claims to those embodiments. In particular, we have expressly rejected the contention that if a patent describes only a single embodiment, the claims of the patent must be construed as being limited to that embodiment.

415 F.3d at 1323 (internal citations omitted).

Two Federal Circuit decisions interpreting this aspect of *Phillips* are instructive. In Saunders Group, Inc. v. Comfortrac, Inc., 492 F.3d 1326, 1332 (Fed.Cir.2007), the Federal Circuit reiterated that "[e]ven where a patent describes only a single embodiment, claims will not be read restrictively unless the patentee has

demonstrated a clear intention to limit the claim scope." In *Saunders Group, Inc.,* the preferred embodiment used "pressure activated seals" to maintain the needed traction force in a cervical traction device. *Id.* at 1329-30. While only "pressure activated seals" were shown in the preferred embodiment, the Court did not find any statement by the patentee that this was the only way to maintain the needed traction force. *Id.* at 1331. The Court concluded that it was therefore inappropriate to read such a limitation into the claim. *Id.*

In Intamin Ltd. v. Magnetar Technologies, Corp., 483 F.3d 1328, 1333 (Fed.Cir.2007), the claim in question required "an intermediary disposed between adjacent pairs of ... magnets." The issue was whether the "intermediary" could be a magnet. *Id* . The district court adopted a construction under which it could not. *Id.* at 1334. The district court limited the term "intermediary" to only non-magnetic substances based on an embodiment in the specification in which the intermediary was non-magnetic. *Id.* at 1332, 1335. The Federal Circuit disagreed, stating that "the claim language itself does not require a non-magnetic 'intermediary.' " *Id.* at 1335. The Court reviewed the specification on which the district court relied and concluded that "a narrow disclosure in the specification does not necessarily limit broader claim language" and that the "overall context of the patent, in this case, does not specifically disavow magnetic intermediaries." *Id.*

In *Phillips, Saunders Group, Inc.* and *Intamin Ltd.,* the Federal Circuit disapproved of the limiting of a claim based on a single embodiment in the specification without any clear intention by the patentee to limit the claim scope. As in those cases, Patent '202 describes only one embodiment of how identity data and time delay periods, stored in the control unit, are transferred to the detonators. Under *Phillips,* Defendants improperly rely on this single embodiment-"Once the module has been disconnected from the control unit it is possible to connect the memory module to the firing unit 38"-to limit the devices capable of transferring this data to only the firing unit. *See* Weil Decl. Ex. D at col. 5, lns. 21-23. Defendants proffer no evidence that the patentee clearly intended to limit the device transferring the identity data to devices other than the control unit. The file history that is relevant consists of one paragraph that, fairly understood, does *not* preclude the control unit from transferring the data. *See* Lyons Decl. Ex. M para. 20. Moreover, neither the claim language nor the specification to which Defendants point precludes the control unit from transferring the data. That a firing unit transfers the data in one embodiment does not establish that only a firing unit can transfer the data or that a control unit cannot. Thus, the Court rejects Defendants' narrow construction of the term and adopts Orica's construction. Accordingly, based on the plain language of the claim, the Court construes "*wherein the control unit is capable of ... storing the identity data and the respective time delay period associated with each of the plurality of detonators in the memory means for subsequent transfer to the detonators*" to mean "*the control unit stores identity data and corresponding time delay periods for the detonators so that this information later can be transferred to the detonators*."

B. Disputed Term in Orica's '103 Patent

The parties disagree about the correct construction of the following term: "*a delay for each detonator is supplied to said control unit via coupling of a portable device to the control unit prior to the control unit communicating information to a particular detonator circuit*." Weil Decl. Ex. E at claim 1 (col.5, lns.19-23).

Claim 1 of the '103 patent is reproduced below, with the disputed term underlined:

1. A detonator firing circuit comprising: a control unit (11) and a plurality of detonator circuits (13), each unit including at least one detonator, linked to said control unit to receive signals therefrom, wherein each detonator circuit (13) has a code individual thereto and positively identifying that detonator circuit, the identification code is one of a substantial multiplicity of codes in a set, and the unit (11) can communicate

information to a particular detonator circuit (13) by identifying the detonator circuit (13) with the identification code individual to that detonator circuit (13), characterised in that the identification code of each detonator circuit (13) and *a delay for each detonator is supplied to said control unit via coupling of a portable device to the control unit prior to the control unit communicating information to a particular detonator circuit*.

Weil Decl. Ex. E at claim 1.

The parties propose the following constructions for the disputed term:

Orica's Proposed Construction	***Defendants' Proposed Construction***
A device capable of being carried (portable device) is coupled to the control unit and supplies each of the delays to the control unit before the control unit transmits information to a particular detonator circuit.	A device carried to read the detonator circuit identification without being wired to the detonator circuit (portable device), is coupled to the control unit and supplies each of the delays to the control unit before the control unit transmits the delay for a detonator to the respective detonator circuit to be stored therein.

The parties agree that the dispute centers on (1) what "a portable device" means and (2) how to characterize the information that is transmitted.

"Portable Device"

1. Orica's Arguments

Orica proposes that "portable" be given its ordinary meaning- *i.e.*, "capable of being carried." Orica points out that the first page of the patent refers to a Webster's dictionary definition of "portable" under the heading of "Other Publications ." Orica argues that the Patent Office relied on this dictionary definition because it quoted it in the file history. *See* Weil Decl. Ex. E at 5 ("Attached to this paper is a definition for the word 'portable,' stating that 'portable' may be interpreted as 'capable of being carried.' ") Orica also notes that Defendants' proposed definition of portable-that a device not be wired to the detonator circuit-was rejected by the patent examiner on September 8, 1998. *See id*.

2. Defendants' Arguments

Defendants argue that the patentee attached a "specialized and highly specific meaning" to the phrase "portable device"- *i.e.*, "carried to ... without being wired ...." Defendants refer to a specification, which states that the "person setting up the explosives circuitry will have a portable device 15 and will visit each bore hole marked on the plan and at each bore hole will read the tag 18 using the device 15 ...." Weil Decl. Ex. E at col. 4, lns. 18-26. Defendants also assert that the patentee intended the term "portable device" to cover only wireless devices. The prior Jullian patent included a portable device defined by the Patent Office as a device "capable of being carried" by wire. The initial application for what became Orica's patent was denied because of Jullian. In order to distinguish the claimed "portable device" from the Jullian prior art, the inventor represented that the "portable device is not wired to the detonator circuits 13 as is the remote central control unit 11." Lyons Decl. Ex. I at 4-5. Defendants therefore contend that this claim must be construed in light of the prosecution history to be a portable device that transfers information wirelessly and that Orica's proposed construction must be rejected because it relies on a definition of "portable device" that the inventor disclaimed during prosecution.

3. Conclusion

The Court finds the definition of "portable" to be plain and unambiguous. Thus, it will give the word its ordinary dictionary meaning. *See* Phillips, 415 F.3d at 1312 (The "words of a claim 'are generally given their ordinary and customary meaning.' "). This conclusion is buttressed by the reference on the first page to a dictionary definition of "portable" that is not actually set forth. The Merriam-Webster's Collegiate Dictionary defines "portable" as "capable of being carried." Merriam-Webster's Collegiate Dictionary, 10th ed., 1996.

At the hearing, Defendants relied on *O2 Micro Intern. Ltd., supra*. [Transcript, p. 16.] The issue there was whether the district court erred in not construing the term "only if." The Federal Circuit held that it did err because "the 'ordinary' meaning of [that] term [did] not resolve the parties' dispute, and claim construction require[d] the court to determine what claim scope is appropriate ...." 521 F.3d at 1362. The Court noted that a determination that a claim term "has the 'plain and ordinary meaning' may be inadequate when a term has more than one 'ordinary' meaning or when reliance on a term's 'ordinary' meaning does not resolve the parties' dispute." Id. at 1361. In *O2 Micro Intern. Ltd., supra,* the "parties agreed that 'only if' has a common meaning, but then proceeded to dispute the scope of that claim term." 521 F.3d at 1362. Here, in contrast, the parties *do* dispute the "meaning" of the disputed term "portable device." Contrary to Defendants' contentions, that term does have a "plain and ordinary meaning"- *i.e.,* its dictionary definition: "capable of being carried." That meaning is the meaning that this Court adopts.

Defendants' reliance at the *Markman* hearing on *Computer Docking Station Corp*. is equally unavailing. [Transcript, p. 16.] In that case, although the Federal Circuit affirmed the district court's exclusion of "laptop computers" from the construction of the term "portable computer," the court nonetheless approved a construction of the term "portable" that is similar to the construction Orica has proposed. 519 F.3d at 1375 ("This court agrees that the plain meaning of 'portable' and its use in the specification and prosecution history require the computer to be 'capable of being moved about.' ")

Finally, Defendants' argument that the "prosecution history reveals that the patentee intended the term 'portable' device to cover only unwired devices" is not persuasive. For such a "prosecution disclaimer to attach," Federal Circuit "precedent requires that the alleged disavowing actions or statements made during prosecution be both clear and unmistakable." Omega Engineering, Inc, v. Raytek Corp., 334 F.3d 1314, 1325-26 (Fed.Cir.2003). The passages Defendants cite from the prosecution history do not establish any such "clear and unmistakable" disavowal. The face of the patent and its file history establish that both the patentee and the Patent Office relied on the dictionary definition of "portable" rather than a definition based on whether the device is "wired." In addition, Defendants' counsel conceded at the hearing that the words "wire," "wired" or "wiring" do not appear in the patent, although they do appear in the prosecution history. [Transcript, pp. 33-34.] Thus, Defendants' proposed construction of "portable" as "without being wired" is inconsistent with the plain language of the claim and with the ordinary meaning of the term. Accordingly, the Court finds that "portable" should be given its ordinary meaning of "capable of being carried."

"Information"

1. Orica's Arguments

Orica argues that the concluding phrase "communicating information to a particular detonator circuit" [Weil Decl. Ex. E at col. 5, lns. 23-24] is easy to understand and closely tracks the language of the claim. Orica

also asserts that there is no basis to restrict such information to information that is communicated to "the delay for a detonator" or to import any other limitation from the specification.

2. Defendants' Arguments

Defendants contend that the specification [*Id.* at col. 4, lns. 18-26] does not support Orica's broad interpretation of information because the specification describes only a single type of information-delay time. Defendants also argue that Orica's interpretation of information is too broad because it entails prior art in the "Hill" patent (Patent No. 5,295,438), which teaches the coupling of a portable device to a control unit communicating information, including blast identification data to detonator circuits.

3. Conclusion

In context, the language of claim 1 shows that the inventor purposefully included the word "information" to refer to what the control unit communicated to the detonator circuit. An earlier clause in claim 1 states that "the control unit can communicate information to a particular detonator circuit (13) .... " Weil Decl. Ex. E at claim 1 (col. 5; lns. 14-15). Moreover, the word "information" is used extensively throughout the patent to refer not only to delay time but other types of information as well, including the individual codes for the detonators. *See, e.g.,* Weil Decl. Ex. E at col. 2, ln. 36; col. 2, ln. 46; col. 3, ln. 13. Thus, limiting the word "information" to only delay time would improperly limit the claim. Accordingly, the Court adopts Orica's construction of the term information.

The Court construes "*a delay for each detonator is supplied to said control unit via coupling of a portable device to the control unit prior to the control unit communicating information to a particular detonator circuit*" to mean "*a device capable of being carried (portable device) is coupled to the control unit and supplies each of the delays to the control unit before the control unit transmits information to a particular detonator circuit*."

C. Disputed Terms in Orica's '755 Patent

The parties disagree about the correct construction of the following term: "*a tab, for releasing the catch means, which extends over the branch line conductor when the components are secured to each other*." Weil Decl. Ex. F at claim 7 (col. 6; lns. 24-27). The dispute is whether the term "tab" needs to be construed in the first place and if so, how it should be construed.

Claim 7 of the '755 patent is reproduced below, with the disputed term underlined:

7. A connector comprising two components, hinge means which connects the components together and which allows relative movement of the components, terminal means on one connector to which at least a branch line conductor and a trunk line conductor are electrically connectable, catch means which enables the components to be secured to each other with a snap action and with one component overlying the other component, and *a tab, for releasing the catch means, which extends over the branch line conductor when the components are secured to each other*.

Weil Decl. Ex. F at claim 7.

The parties propose the following constructions for the disputed term:

Orica's Proposed Construction	*Defendants' Proposed Construction*
Orica believes the limitation needs no construction because "tab" has its ordinary, well-understood meaning and the rest of the limitation is self-explanatory. If the Court disagrees, Orica proposes the following construction: The tab is positioned over the branch line when the connector is closed and is used for releasing the hook or catch.	Defendants' revised proposed construction: A single extension of a hook or catch that is positioned over the branch line when the connector is closed and is used for releasing the hook or catch.

1. Orica's Arguments

Orica contends that "tab" is a common word with an easily understood meaning. Thus, Orica argues, because the rest of the claim is self-explanatory, the term does not need a construction at all. Moreover, Orica asserts that Defendants' revised proposed construction improperly limits the claim based on the preferred embodiment in the specification.

2. Defendants' Arguments

At the hearing, Defendants abandoned their previous argument that the claim language requires "a tab" that both "releases the catch means" and "extends over the branch conductor" when the components are secured to each other. They proposed a new construction: "A single extension of a hook or catch that is positioned over the branch line when the connector is closed and is used for releasing the hook or catch." Defendants contend that the article "a" in the disputed term- *i.e.,* "a tab, for releasing ... which extends ...."-and Figures 3-5 of the patent show that the claim requires that a single tab meet both of these claimed limitations- *i.e.,* the tab both "releases" the hook or catch and "extends" over the branch line. (Orica concedes that the tab in question is a single structure.) Defendants also argue that according to the prosecution history, the patentee distinguished the claimed invention from prior art on the grounds that "the tab is an actual extension of the catch means .... [M]oving the tab (78) as in the direction of arrow 88, causes neck 76 to flex to thereby facilitate disengagement between the first and second components. In addition, finding the tab facilitates finding the branch line since the tab extends over the branch line when the connector is in use." Lyons Decl. Ex. F at 2-3.

3. Conclusion

Orica (through its alternate construction) and Defendants (through their revised proposed construction) agree that a "tab" is "positioned over the branch line when the connector is closed and is used for releasing the hook or catch." The parties differ as to whether the term "tab" needs to be defined. The Court finds that the term "tab" does not have an "ordinary and customary meaning" to a person of ordinary skill in the art. Thus, contrary to Orica's contention, construing "tab" *is* necessary.

Defendants' revised proposed construction of "tab"- *i.e.,* "A single extension of **a** hook or catch"-has ample support in the record and would assist a jury in understanding the claim. First, Orica conceded in its reply papers and at the hearing that the tab in question is a "single structure." Second, the "tab" is clearly an "extension," as the patent repeatedly states that it "extends" from or over other components of the "catch formation." *See* Weil Decl. Ex. F at claim 7 (col.6, lns.25-26) ("a tab, for releasing the catch means, which extends over the branch line ...."); claim 1 (col. 5, lns 32-33) ("a tab which extends away from the second component ...."); claim 3 (col.6, lns.2-3) ("a hook formation and the tab extend from the neck in opposite

directions"). Finally, the patentee explained to the Patent Office that "the tab is an actual extension of the catch means .... finding the tab facilitates finding the branch line since the tab extends over the branch line when the connector is in use." Lyons Decl. Ex. F at 2-3.

Thus the Court adopts Defendants' revised proposed construction and construes "*a tab, for releasing the catch means, which extends over the branch line conductor when the components are secured to each other*" to mean "*a single extension of a hook or catch that is positioned over the branch line when the connector is closed and is used for releasing the hook or catch.*"

D. Disputed Terms in SDI's '494 Patent

The parties disagree about the correct construction of the following two terms in SDI's '494 patent: "*master device*" and "*detection command*." Weil Decl. Ex. G at claim 1 (col. 16; lns. 13, 17, 20-21, 24); claim 15 (col. 18; lns. 4, 9, 13-15, 17).

Claims 1 and 15 of the '494 patent are reproduced below, with the disputed terms underlined:

1. A method of detecting unidentified slave devices in a system including a *master device* and a plurality of slave devices, comprising the following steps:

a) providing each slave device in the system with an identification and pre-loading one or more slave device identifications into the master device;

b) after step a), connecting at least one slave device to the system;

c) after step b), issuing a *detection command* on the system from the *master device;* and

d) after step c), issuing a response only from any slave devices on the system that have not been identified to the *master device,* each said response including the slave device's identification.

15. A method of identifying unidentified slave devices in a system including a *master device* and a plurality of slave devices, comprising the following steps:

a) providing at least one slave device with an identification residing in a fixed memory in the slave device, and pre-loading one or more slave device identifications into the *master device;*

b) after step a), connecting at least one slave device to the system;

c) after step b), issuing a *detection command* on the system from the *master device;* and,

d) issuing a response to said *detection command* from any slave devices on the system that have not been identified to the *master device,* each said response including the slave device's identification.

Weil Decl. Ex. G at claim 1; claim 15.

This patent claims a method for detecting unidentified "slave devices" in a blasting system. Weil Decl. Ex. G at col. 10, lns. 8-11. In their proposed edits to the Court's "Glossary of Terms," the parties stipulated to

the following relevant definitions:

Master Device: In a blasting system, refers to a device that sends information (and, optionally, power) to and may receive responses from "slave devices."

Slave Device: In a blasting system, refers to detonators that receive information (and, optionally, power) from a "master device" and that may send responses to the "master device."

The parties noted that they did not intend that this generic definition of "master device" supercede their respective arguments as to the proper construction of this disputed term in the '494 patent.

"Master Device" (Claim 1)

The parties propose the following constructions for the disputed term "master device":

Orica's Proposed Construction	***Defendants' Proposed Construction***
A single device used in connection with the steps of the claims.	A device capable of reading data from and/or writing data to an electronic detonator, such as a blasting machine, logging machine, handheld scanner, and/or any combination thereof.

1. Orica's Arguments

Orica contends that the specification makes clear that the "master device" is one device: either the blasting machine or the logger in the blasting system, but not a combination of these or any other devices. *See* Weil Decl. Ex. G at col. 4, lns. 54-57 ("a logger or blasting machine"); col. 5, lns. 5-6 (communications from the "blasting machine or logger"). Orica also asserts that Figures 1, 2, 6a, 6b, 7a and 7b of the '494 patent and the absence of any language in the specification referring to the master device as both a logger and a blasting machine (or a combination of these devices) support its argument. Instead, Orica argues that the claim language shows that the same device must be used to perform all of the steps in the claim. The preamble to both claims 1 and 15 refers to "a master device" and steps (a), (c) and (d) of those claims refer to "the master device." The use of the article "the" indicates, Orica contends, that the second term refers to the first term. Finally, Orica notes, to overcome an objection from the Patent Office as to where the information from the detonators must be pre-loaded, the inventor agreed to restrict the scope of the claim to systems where the information was pre-loaded into "the master device." Weil Decl. Ex. Q at 5, 13. Thus, Orica concludes that nothing in the intrinsic record suggests that the master device is anything but one device that performs each of the claimed steps.

2. Defendants' Arguments

Defendants argue that Orica's construction is contrary to Federal Circuit precedent because it excludes from the scope of the claims the preferred embodiment of the invention disclosed in the specification. *See* Anchor Wall Sys. v. Rockwood Retaining Walls, Inc., 340 F.3d 1298, 1308 (Fed.Cir.2003) ("[I]t is axiomatic that a claim construction that excludes a preferred embodiment ... 'is rarely, if ever correct and would require highly persuasive evidentiary support.' "). Defendants contend that the preferred embodiment does not include "a single device used in connection with" the steps claimed, but rather a combination of devices. Defendants point to a preferred embodiment in which a detonator is connected to the logger and (in a later

step) the blasting machine detects any unknown or unlogged detonators. *See* Weil Decl. Ex. G at col. 8, lns. 20-31; col. 9, lns. 16-28. Orica's narrow construction would not cover such an embodiment in which both a logger and a blasting machine are involved in performing the claimed steps. Finally, Defendants point to language in the specification where both the "blasting machine and the logger" conjunctively "may be" or "are capable of" of performing a claimed step. *See* Weil Decl. Ex. G at col. 2, lns. 34-35, 40-41, 43-44, 53-54, 57-59, 62-63.

3. Conclusion

In its reply papers and at the *Markman* hearing, Orica conceded that either a logger or a blasting machine could be a "master device." At the hearing, Orica also stated that the Court's tentative construction of "master device" ("One or more device used in connection with the steps of the claims") is "exactly right except for two words ... the words 'or more' [should be] removed from that ...." Apr. 10, 2008 Trans. at 48: 18-20. Thus, the dispute boils down to whether the same device-either a logger or blasting machine, but not both-must perform steps (a), (c) and (d) of claims 1 and 15.

The patent's preferred embodiment, in which both a blasting machine and a logger act in concert as a master device, is important. The preferred embodiment contemplates that a logger performs step (a), a blasting machine performs step (c), and the blasting machine (or a possible combination of the two) performs step (d). *See* Weil Decl. Ex. G at col. 8, lns. 20-31 (in step (a), "the detonators are preferably first each connected individually to a logger"); col. 10, lns. 9-13 (in step (c), the auto bus detection command "permits the blasting machine to detect any unknown (i.e., unlogged) detonators"); col. 10, lns. 59-61 (in step (d), the "blasting machine" senses a response from one or more detonators). To require that only one of these devices be used in connection with the steps of the claim is inconsistent with the preferred embodiment and the patent as a whole. Orica argued at the hearing that a "temporal element" in the claim (the sequence of the steps of the claim) imposes a restriction that the same device perform steps (a), (c) and (d) of the claim. The preferred embodiment suggests differently. So do the many instances in the patent in which a "blasting machine and logger" or "blasting machine or logger" communicate with the detonators in connection with the steps of the claims. *See, e.g.,* Weil Decl. Ex. G at col. 2, lns. 40-44; col. 5, lns. 5-7. Thus, Defendants are correct that more than one device can function as a master device.

However, the '494 patent does not require inclusion of the term "hand-held scanner," as Defendants' construction proposes. There is also no persuasive support for limiting a master device to a device that is capable of reading data from and/or writing data to an electronic detonator. Defendants failed to explain at the *Markman* hearing why either clause is appropriate. Thus, the Court construes "*master device*" to mean "*one or more device used in connection with the steps of the claims*."

"Detection Command" (Claim 15)

The parties propose the following constructions for the disputed term "detection command":

Orica's Proposed Construction	***Defendants' Proposed Construction***
A command issued to determine a slave device's unique identification.	One or more commands issued to discover the existence, presence, or fact of slave devices connected to the master device.

The issue here is whether the "detection command" in question is issued to determine "the existence, presence or fact" of slave devices in a system or to determine the "identity" of the slave devices.

1. Orica's Arguments

The "Summary of Invention" of the '494 patent states that the aim of the patent is for the blasting machine to "identify any detonators connected to the system that have not been already identified, thus preventing unidentified detonators from being detonated." Weil Decl. Ex. G at col. 1, lns. 20-24. Orica argues that for a master device to accomplish this objective it must know "who is out there," not just that "someone is out there." Orica contends that the system prevents the detonation of unidentified detonators by identifying them (by determining their unique identification) and then using that unique identification to program them with an appropriate time delay. It would be impossible, Orica claims, for the master device to program the detonator if it sought only to determine that such a slave device existed or was present. Orica also notes that the specification does not use in this context the words that Defendants' construction proposes: "existence, presence or fact."

2. Defendants' Arguments

Defendants argue that the claims require that the master device only detect the slave devices, not that they affirmatively identify them. Defendants assert that it is instead the slave device's response to the detection command that includes the slave device's identification. Thus, Defendants contend that Orica's proposed construction erroneously imports the content of the slave device's response to the detection command into the meaning of the detection command. In the preferred embodiment of the claim, when multiple slave devices respond simultaneously to a detection command, a master device is able only to "detect"-that is, discover the existence, presence or fact of-the responding slave devices because the specification indicates that the blasting machine preferably "ignores" such simultaneous responses. Weil Decl. Ex. G at col. 11, lns. 1-5. Moreover, as Defendants emphasized at the hearing, during prosecution of the patent, the inventor amended and broadened the claims to recite "detecting" slave devices rather than "identifying" them.

In addition, Defendants assert that the specification proves that the "detection command" may be a series of ("one or more") commands because "the process ... is then repeated using a different delay time or a different dummy serial ID until no unlogged detonators respond ...." Weil Decl. Ex. G at col. 11; lns 6-9.

3. Conclusion

First, the specification indicates that the "detection command" is repeated until no unlogged detonators respond. Weil Decl. Ex. G at col. 11, lns 6-9. Thus, the Court agrees with Defendants that the detection command is "one or more commands" rather than "a command" (Orica's proposed construction).

Second, the clear purpose of the patent, as stated in its "Abstract," is for a master device to "caus[e] all slave devices that have not been identified to the master device to respond with identifying information." The claims expressly require that the slave devices respond to the detection command with their identification information: "each said response" must include "the slave device's identification." This patent language is consistent with Orica's construction that the "detection command" is a "command issued to determine a slave device's unique identification." Moreover, the words "identify," "unidentified" and "identification" appear throughout the claim and patent, unlike Defendants' proposed language: "existence, presence, or fact." *See, e.g.,* Weil Decl. Ex. G at col. 1, ln. 22; col. 16, ln. 12; col. 16, ln. 25; col. 16, lns. 66-67; col. 18, lns. 6-8. Thus, the Court favors Orica's construction that the detection command is issued to "determine a slave device's unique identification." Thus, the Court construes "*detection command*" to mean "*one or more commands issued to determine a slave device's unique identification*."

E. Disputed Terms in SDI's '131 Patent

The parties disagree about the correct construction of the following term in SDI's '131 patent: "*pre-fire countdown delay time*." Weil Decl. Ex. H at claim 1 (col.16, lns.42-43); claim 10 (col.17, lns.8, 11-12); claim 20 (col.18, ln.16).

Claims 1, 10 and 20 of the '131 patent are reproduced below, with the disputed terms underlined:

Claim 1. A method of conducting a fire command sequence in a system of electronic pyrotechnic devices, comprising the following steps:

a) establishing a system including a master device and a plurality of electronic pyrotechnic devices;

b) issuing a fire command from said master device to said electronic pyrotechnic devices;

c) conducting a pre-fire countdown prior to any final fire countdown;

d) issuing one or more additional fire commands after step b) and during step c); and,

e) during step b), providing said pyrotechnic devices with a *pre-fire countdown delay time;* wherein said *pre-fire countdown delay time* is decreased by a predetermined amount each time a fire command is issued.

Claim 10. An electronic pyrotechnic device including circuitry configured and/or programmed to conduct a pre-fire countdown prior to detonation and prior to any final fire countdown, wherein said device includes means for performing the following functions:

a) receiving a fire command and a corresponding *pre-fire countdown delay time;*

b) prior to any final fire countdown, conducting a pre-fire countdown in response to receipt of said fire command and corresponding *pre-fire countdown delay time;*

c) after receiving said fire command and during said pre-fire countdown, receiving one or more additional fire commands and corresponding *pre-fire countdown delay times* each of which is successively decreased by a predetermined amount.

Claim 20. A system including a plurality of electronic pyrotechnic devices comprising:

a) a master device;

b) a bus connected to said master device; and,

c) a plurality of electronic pyrotechnic devices connected to said bus, said electronic pyrotechnic devices each including circuitry configured and/or programmed to conduct a pre-fire countdown prior to detonation and prior to any final fire countdown; wherein said master device is configured and/or programmed to issue a fire command to trigger said pre-fire countdown in said electronic pyrotechnic devices, and said master device is further configured and/or programmed to issue multiple fire commands during the pre-fire

countdown, said fire commands each including a *pre-fire countdown delay time* that decreases by a predetermined amount with the issuance of each command.

Weil Decl. Ex. H at claims 1, 10, 20.

The parties propose the following constructions for the disputed term:

Orica's Proposed Construction	***Defendants' Proposed Construction***
The delay time communicated to the detonator as part of, or during, the fire command.	The period of time between receipt of a fire command and a final fire countdown.

1. Orica's Arguments

According to the "Summary of Invention" of the '131 patent, the purpose of the pre-fire countdown is to allow the system to abort the fire sequence if necessary after the fire command. Thus, Orica asserts that Defendants' proposed construction excludes the preferred embodiment of the patent because it would not cover situations in which a fire sequence is aborted. In sum, Orica contends that the "pre-fire countdown delay time" is not the duration of waiting time but rather an instruction to the detonator as to how long it should wait.

2. Defendants' Arguments

Defendants claim that only their construction of "pre-fire countdown delay time" is consistent with the parties' agreement that "pre-fire countdown" means "a countdown from receipt of a fire command to a final fire countdown." It follows, Defendants argue, that the "pre-fire countdown delay time" must be the amount of time between the two events that define the "pre-fire countdown." Defendants also contend that the claims do not require that the delay time be communicated to the detonator "as part of" the fire command. Claim 1, for example, states that the detonators are provided with a pre-fire countdown delay time "during" the issuance of a fire command. Claim 10 recites receipt of a "corresponding pre-fire countdown delay time." Thus, supplying the pre-fire countdown delay time as part of the fire command is one way, but not the only way, of practicing the invention.

3. Conclusion

The dispute here boils down to whether the term is an instruction communicated to the detonator or an amount of time that actually elapses between one event (receipt of a fire command) and a later event (final fire countdown). Based on the context of the claims at issue-Claims 1, 10 and 20-the Court finds that "pre-fire countdown delay time" is the former-a "delay time communicated to the detonator" (Orica's proposed construction) rather than the actual "period of time between receipt of a fire command and a final fire countdown" (Defendants' proposed construction). This conclusion finds ample support in the patent. For example, Claim 1 states that in step (e) of the claimed method "pyrotechnic devices" are "provid[ed]" with "a pre-fire countdown delay time" and that "a pre-fire countdown delay time" is "decreased" by a "predetermined amount each time a command is issued." Weil Decl. Ex. H at col. 16, lns. 42-45. Claim 10 refers to the "receipt" of the "corresponding pre-fire countdown delay time," suggesting that the disputed term is something that is capable of being conveyed or apprehended at a single moment, rather than something that extends over an interval encompassing more than one moment. *Id.* at col. 17, lns. 7-8. Claim 20 states that "said fire commands each includ[e] a pre-fire countdown delay time that decreases by a predetermined amount with the issuance of each command." *Id.* at col. 15, lns. 15-18. Thus, based on the

language and context of the claims in dispute, Defendants' argument that "a pre-fire countdown delay time" is a period of time is not persuasive. Finally, in its reply papers, Orica added the phrase "or during" to their proposed construction. This amendment moots Defendants' argument, on which they initially relied heavily, that the "pre-fire countdown delay time" need not be part of the fire command. Thus, the Court construes "*pre-fire countdown delay time*" to mean "*the delay time communicated to the detonator as part of, or during, the fire command*."

IV. *CONCLUSION*

For the foregoing reasons, and for good cause appearing thereof, the Court construes the disputed terms as described above.

THIS ORDER IS NOT INTENDED FOR PUBLICATION.

Exhibit A

Glossary of Terms

blasting machine:	a device that provides electrical energy for the purpose of charging or firing detonators in a blasting circuit (and may also perform other functions such as communication with the electronic detonators)
branch line:	wiring that connects a detonator to a main (or "bus" or "trunk") line
delay time:	traditionally, either (a) the lapse of time between the application of a firing signal and the detonation of the base charge of a detonator or (b) the value provided to a detonator so that it waits the correct amount of time before detonating
identity data:	a detonator's identification information, unique within a blast
ignition module:	typically, the electronic circuitry within an electronic detonator that communicates with the logger or blasting machine and allows electronic detonators to remember and implement delay times (the "brain" of the detonators)
logger:	handheld device, that among other things, communicates with and may assign and/or program delay times to the detonators
master device:	in a blasting system, refers to a device that sends information (and, optionally, power) to and may receive responses from "slave devices"
slave device:	in a blasting system, refers to detonators that receive information (and, optionally, power) from a "master device" and that may send responses to the "master device"

C.D.Cal.,2008.
Orica Explosives Technology, Pty., Ltd. v. Austin Powder Co.