

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA
SAN JOSE DIVISION

Avocet Sports Technology, Inc., et al.,

NO. C 08-04264 JW

Plaintiffs,

FIRST CLAIM CONSTRUCTION ORDER

v.

Amer Sports Corporation, et al.,

Defendants.

I. INTRODUCTION

This is a patent infringement case. Plaintiffs are Avocet Sports Technology, Inc. and Vertical Instruments, Inc. Defendants are Amer Sports Winter & Outdoor Company, Suunto U.S.A., Inc., Amer Sports Corporation, and Amer Sports U.S.A. Plaintiff Avocet Sports alleges ownership of U.S. Patent Nos. 5,295,085 (the “’085 Patent”) and 5,058,427 (the “’427 Patent”). Plaintiff Vertical Instruments alleges ownership of U.S. Patent No. 4,694,694 (the “’694 Patent”). The ‘085, ‘427, and ‘694 Patents (collectively, “the Patents-in-Suit”) pertain to methods and apparatuses for measuring accumulation of altitude and displaying the result on a compact device such as a wristwatch.

Plaintiffs allege that Defendants have (1) infringed the Patents-in-Suit by their production, marketing, manufacturing, and sale of so-called Suunto “wristops computers” which have an altimeter function that Plaintiffs contend are covered by the Patents-in-Suit, and (2) actively induced others to infringe the Patents-in-Suit. Plaintiffs seek damages of \$20 million. Defendants seek a declaration that the Patents-in-Suit are invalid and not infringed by Defendants’ products or actions.

1 On October 9, 2009, the Court conducted a hearing in accordance with Markman v.
2 Westview Instruments, Inc., 517 U.S. 370 (1996) to construe language of the asserted claims over
3 which there is a dispute. Although there are three Patents-in-Suit, the parties only seek construction
4 of disputed terms in the ‘694 and ‘427 Patents. This First Claim Construction Order sets forth the
5 Court’s construction of the disputed terms.

6 **II. BACKGROUND**

7 **A. Procedural History**

8 On January 6, 2009, Plaintiffs filed their Second Amended Complaint for Patent
9 Infringement; the sole cause of action is for infringement of the ‘085, ‘427, and ‘694 Patents.¹ On
10 January 14, 2009, Defendants served their Answer and Counterclaims to the Second Amended
11 Complaint. (See Docket Item No. 27.) Defendants counterclaimed for declaratory relief as to (1)
12 non-infringement of the Patents-in-Suit and (2) invalidity of the Patents-in-Suit. (See id.) On
13 February 3, 2009, Plaintiffs filed their Answer to the Counterclaims. (Docket Item No. 34.)

14 **B. The ‘694 Patent**

15 The ‘694 Patent is entitled “Solid State Accumulating Altimeter.”

16 The Abstract of the ‘694 Patent describes the invention as follows:

17 An altimeter device employs a solid state pressure sensor having a strain-sensitive element
18 directly in a silicon diaphragm, which is connected at one side to a closed vacuum chamber.
19 The entire device is very compact and may be in the form of a wristwatch. A display
20 indicates altitude or relative altitude above or below a reference point to the user, and
21 electronics associated with the device provide for accumulation of vertical change in one
22 direction, regardless of intervening changes in the opposite direction. In this way, a skier,
23 hiker or biker, for example, may determine total vertical drop or vertical rise encountered in
24 a selected period, without regard to offset from movements in the opposite direction. At the
25 same time, the user may also determine his altitude at any given point, and in a preferred
26 form the altimeter device includes a clock and a time-averaging feature, for calculating and
27 displaying rate of climb or descent, both instantaneous and average over a selected interval.
28 The device may also have a time display, so that it functions as a wristwatch as well as an
altimeter, and a synthesized voice output may be included for reporting data to the user’s ear
when visual observation of the display is not practical.

25 ¹ (hereafter, “SAC,” Docket Item No. 21.) The Second Amended Complaint states:
26 “Defendants Amer Sport Corporation and Amer Sports, U.S.A. have been dismissed by stipulation
27 of the parties without prejudice. Defendant Amer Sports Winter & Outdoor Company is the
28 successor in interest to Suunto U.S.A. and per stipulation of the parties, Suunto U.S.A. is designated
hereafter as Amer Sports Winter & Outdoor Company.” (SAC ¶ 5.)

1 **C. The ‘427 Patent**

2 The ‘427 Patent is entitled “Accumulating Altimeter with Ascent/Descent Accumulation
3 Thresholds.”

4 The Abstract of the ‘427 Patent describes the invention as follows:

5 An accumulating altimeter includes a programmable accumulator which selectively
6 accumulates altitude changes from a reference altitude in accordance with accumulation
7 thresholds. Altitude changes in the direction of interest, e.g. altitude gains, are accumulated
8 once a non-opposing accumulation threshold has been reached. Opposing altitude changes
9 which are less than an opposing accumulation threshold are used to offset non-opposing
10 changes. Opposing altitude changes which are equal to or greater than the opposing
11 accumulation threshold are used to re-establish the reference altitude, whereafter
12 accumulation of non-opposing altitude changes resume after the non-opposing accumulation
13 threshold has been reached.

14 **III. STANDARDS AND PROCEDURES FOR CLAIM CONSTRUCTION**

15 **A. General Principles of Claim Construction**

16 Claim construction is a matter of law, to be decided exclusively by the Court. Markman v.
17 Westview Instruments, Inc., 517 U.S. 370, 387 (1996). When the meaning of a term used in a claim
18 is in dispute, the Court invites the parties to submit their respective proposed definitions and a brief,
19 outlining the basis for their proposals. In addition, the Court conducts a hearing to allow oral
20 argument of the respective proposed definitions. After the hearing, the Court takes the matter under
21 submission, and issues an Order construing the meaning of the term. The Court’s construction
22 becomes the legally operative meaning of the term that governs further proceedings in the case.
23 Vitronics Corp. v. Conceptor, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996). The Court recognizes
24 that claim construction is a fluid process, wherein the Court may consider a number of extrinsic
25 sources of evidence so long as they do not contradict the intrinsic evidence. However, the Court
26 acknowledges that greater weight should always be given to the intrinsic evidence. Phillips v. AWH
27 Corp., 415 F.3d 1303, 1324 (Fed. Cir. 2005).

28

1 **B. Construction from the View Point of an Ordinarily Skilled Artisan**

2 A patent’s claims define the scope of the patent: the invention that the patentee may exclude
3 others from practicing. Id. at 1312. The Court generally gives the patent’s claims their ordinary and
4 customary meaning. In construing the ordinary and customary meaning of a patent claim, the Court
5 does so from the viewpoint of a person of ordinary skill in the art at the time of the invention, which
6 is considered to be the effective filing date of the patent application. Thus, the Court seeks to
7 construe the patent claim in accordance with what a person of ordinary skill in the art would have
8 understood the claim to have meant at the time the patent application was filed. This inquiry forms
9 an objective baseline from which the Court begins its claim construction. Id.

10 The Court proceeds from that baseline under the premise that a person of ordinary skill in the
11 art would interpret claim language not only in the context of the particular claim in which the
12 language appears, but also in the context of the entire patent specification, of which it is a part. Id.
13 at 1313. Additionally, the Court considers that a person of ordinary skill in the art would consult the
14 rest of the intrinsic record, including any surrounding claims, the drawings, and the prosecution
15 history—if it is in evidence. Id.; Teleflex, Inc. v. Fiso N. Am. Corp., 299 F.3d 1313, 1324 (Fed.
16 Cir. 2002). In reading the intrinsic evidence, a person of ordinary skill in the art would give
17 consideration to whether the disputed term is a term commonly used in lay language, a technical
18 term, or a term defined by the patentee.

19 **C. Commonly Used Terms**

20 In some cases, disputed claim language involves a commonly understood term that is readily
21 apparent to the Court. In such a case, the Court considers that a person of ordinary skill in the art
22 would give to it its widely accepted meaning, unless a specialized definition is stated in the patent
23 specification or was stated by the patentee during prosecution of the patent. In articulating the
24 widely accepted meaning of such a term, the Court may consult a general purpose dictionary.
25 Phillips, 415 F.3d at 1314.

1 **D. Technical Terms**

2 If a disputed term is a technical term in the field of the invention, the Court considers that
3 one of skill in the art would give the term its ordinary and customary meaning in that technical field,
4 unless a specialized definition is stated in the specification or during prosecution of the patent. In
5 arriving at this definition, the Court may consult a technical art-specific dictionary or invite the
6 parties to present testimony from experts in the field on the ordinary and customary definition of the
7 technical term at the time of the invention. Id.

8 **E. Defined Terms**

9 The Court acknowledges that a patentee is free to act as his or her own lexicographer.
10 Acting as such, the patentee may use a term differently than a person of ordinary skill in the art
11 would understand it, without the benefit of the patentee's definition. Vitronics Corp., 90 F.3d at
12 1582. Thus, the Court examines the claims and the intrinsic evidence to determine if the patentee
13 used a term with a specialized meaning.

14 The Court regards a specialized definition of a term stated in the specification as highly
15 persuasive of the meaning of the term as it is used in a claim. Phillips, 415 F.3d at 1316-17.
16 However, the definition must be stated in a clear words, which make it apparent to the Court that the
17 term has been defined. See id.; Vitronics Corp., 90 F.3d at 1582. If the definition is not clearly
18 stated or cannot be reasonably inferred, the Court may decline to construe the term pending further
19 proceedings. Statements made by the patentee in the prosecution of the patent application as to the
20 scope of the invention may be considered when deciding the meaning of the claims. Microsoft
21 Corp. v. Multi-Tech Systems, Inc., 357 F.3d 1340, 1349 (2004). Accordingly, the Court may also
22 examine the prosecution history of the patent when considering whether to construe the claim term
23 as having a specialized definition.

24 In construing claims, it is for the Court to determine the terms that require construction and
25 those that do not. See U.S. Surgical Corp. v. Ethicon, Inc., 103 F.3d 1554, 1568 (Fed. Cir. 1997).
26 Moreover, the Court is not required to adopt a construction of a term, even if the parties have
27 stipulated to it. Pfizer, Inc. v. Teva Pharms., USA, Inc., 429 F.3d 1364, 1376 (Fed. Cir. 2005).

1 Instead, the Court may arrive at its own constructions of claim terms, which may differ from the
2 constructions proposed by the parties.

3 IV. DISCUSSION

4 The Court proceeds to construe the disputed terms of the '694 and '427 Patents.

5 **A. The '694 Patent**

6 **1. Independent Claim 1**

7 Claim 1 of the '694 Patent provides:²

8 A solid state altimeter device, comprising:

9 an integrated circuit solid state pressure sensor including a deformable silicon
10 diaphragm with a semiconductor strain gauge in the diaphragm;
11 a vacuum chamber operatively attached to the diaphragm such that the vacuum of the
12 vacuum chamber is applied to one side of the diaphragm, with the opposite side of the
13 diaphragm exposed to atmospheric pressure;
14 **electrical means** connected to the semiconductor strain gauge for conducting an
15 analog signal from the strain gauge representing pressure difference between atmospheric
16 and the vacuum chamber;
17 a housing containing the pressure sensor and the vacuum chamber;
18 **microprocessor means** in the housing for receiving **the signal** from the electrical
19 means and for converting **the signal** into an altitude value;
20 display means mounted in the housing and connected to the microprocessor means
21 for displaying values as controlled by the microprocessor means, to a user;
22 calibration means connected to the microprocessor means for enabling the user to
23 manually calibrate the altimeter device to a reference value; and
24 accumulator means included in the microprocessor means for accumulating altitude
25 change in one direction, disregarding altitude changes in the opposite direction, for a selected
26 interval, and including an accumulation display associated with the display means for
27 displaying said altitude change in one direction.

19 **a. "electrical means"**

20 The parties dispute the meaning of the phrase "**electrical means.**"

21 Title 35 U.S.C. § 112 ¶ 6, provides:

22 An element in a claim for a combination may be expressed as a means or step for
23 performing a specified function without the recital of structure, material, or acts in
24 support thereof, and such claim shall be construed to cover the corresponding
25 structure, material, or acts described in the specification and equivalents thereof.

26 The statutory language makes §112 ¶ 6 applicable to a claim if an "element in [the] claim for a
27 combination" is expressed as a "means for" performing a specified function without the recital of

27 ² Unless otherwise indicated, all bold typeface is added by the Court for emphasis.

1 structure. Although the Court will use the word element to refer to the components of the patent
2 claims, each element is a limitation.³

3 Here, the “electrical means” element does not disclose a definite structure and is written in a
4 means-plus-function format. Thus, the Court will construe the “electrical means” element of Claim
5 1 pursuant to §112 ¶ 6.

6 **i. the recited function**

7 In construing the meaning of an element in means-plus-function format, the court must first
8 identify the claimed function. See *Micro Chem., Inc. v. Great Plains Chem. Co.*, 194 F.3d 1250,
9 1258 (Fed. Cir. 1999). If there is a dispute over the meaning of the words and phrases which
10 express the function of the means, their meaning must be decided by the court, using the standard
11 principles of claim construction. See, e.g., *Lockheed Martin Corp. v. Space Systems/Loral, Inc.*,
12 249 F.3d 1314, 1324 (Fed. Cir. 2001). Typically, the words and phrases following the phrase
13 “means for” indicate the function which is performed by the means. Id.

14 Here, the subject element recites the function of “conducting an analog signal from the strain
15 gauge.” However, the specification does not contain any definition of the word “conducting.” The
16 language of Claim 1 recites that the function, “conducting,” is performed by the “electrical means.”
17 In the context of an “electrical” signal, the word “conducting” has widely accepted and common
18 meanings. Accordingly, the Court construes “conducting” to mean **“passing or carrying a current
19 of electricity.”** See INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERING (IEEE)
20 DICTIONARY OF STANDARDS TERMS 215 (7th ed. 2000).

21 The language of this element recites that what is being conducted is “an analog signal.” In
22 the original application for the ‘694 Patent, the inventors described the resistance signal as an analog
23

24 ³ As used in §112 ¶ 6, the word “element” means a “limitation of a patent claim:”
25 The statute [§ 112 ¶ 6] refers to a claim “element,” but this court [the
26 Federal Circuit] has moved towards the custom of referring to claim
27 “limitations,” reserving the word “elements” for describing the parts
28 of the accused device, though the court on occasion continues to use
the words interchangeably.
Dawn Equip. Co. v. Kentucky Farms, Inc., 140 F.3d 1009, 1014 n.1 (Fed. Cir. 1998).

1 signal.⁴ However, in their original application, the inventors did not limit the signal. Instead, they
2 broadly claimed:

3 electrical means connected to the semiconductor strain gauge for conducting **a signal** from
4 the strain gauge representing pressure difference between atmospheric and the vacuum
chamber;

5 ('694 Patent Prosecution History at 24.)

6 In response to a rejection by the patent examiner for indefiniteness under § 112, the inventors
7 amended Claim 1 to limit the element to an analog signal:

8 electrical means connected to the semiconductor strain gauge for conducting **an analog**
9 **signal** from the strain gauge representing pressure difference between atmospheric and the
vacuum chamber;

10 ('694 Patent Prosecution History at 43.)

11 If patentees narrow their claim scope by an amendment related to patentability during
12 prosecution to overcome a rejection by the patent examiner, the patentee is estopped from later
13 arguing that their claims cover the disavowed claim scope. See Festo Corp. v. Shoketsu Kinzoku
14 Kogyo Kabushiki Co., Ltd., 535 U.S. 722, 735-37 (2002).

15 Thus, the Court finds that the amendment narrows the scope of this element to an analog
16 signal. There are further limitations on this element because the claim language recites that an
17 "analog signal" must be "from the strain gauge," and it must be one "representing pressure
18 difference between atmospheric and the vacuum chamber analog signal."

19

20

21

22 _____
23 ⁴ Defendants submitted the original application for the Court's review. (Amer Sports Winter
24 & Outdoor Company's Responsive Claim Construction Memorandum, Ex. 3, hereafter, "'694 Patent
Prosecution History," Docket Item No. 45.) Page 8 is missing from the application. However, the
Court presumes that the written description of the issued patent is identical to the written description
in the original application. If so, the original written description provided:

25 The resistance signal represents the degree of strain in the element 18, representative of the
26 differential pressure on the two sides of the transducer diaphragm 17. **The resistance signal**
is an analog variable signal which is converted by the microprocessor chip 25 into an
appropriate altitude figure.

27 ('694 Patent, Col. 4:45-51.)

28

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

ii. corresponding structure

After construing the function of the element, the court examines the written description to identify corresponding structure which is linked to performing that function. *See Micro Chem., Inc. v. Great Plains Chem. Co.*, 194 F.3d 1250, 1258 (Fed. Cir. 1999). The element must be construed “to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.” *Chiuminatta Concrete Concepts, Inc. v. Cardinal Indus., Inc.*, 145 F.3d 1303, 1308 (Fed. Cir. 1998).

In the written description, the inventor described “conductors:”

The silicon chip includes **conductors** (indicated at 22 and 23 in FIG. 3) operably **connected to the strain resistance element** 18 for connection to other electronics generally indicated as 24,⁵ contained within the device’s housing 11.

(’694 Patent, Col. 3:52-56.) The Court concludes that the connectors disclosed in the written description are corresponding structure to the “electrical means.” Accordingly, as used in Claim 1 of the ’694 Patent, the Court construes “**electrical means**” to mean:

An apparatus for electrically carrying an analog signal from the semiconductor strain gauge to other components in a circuit, as illustrated by the items labeled 22 and 23 in Figure 3 and their equivalents.

b. “microprocessor means”

Claim 1 discloses as an element: “microprocessor means in the housing for receiving the signal from the electrical means and for converting the signal into an altitude value.” The parties dispute the proper construction of the “**microprocessor means.**”

This element is written in a mean-plus-function format: “microprocessor means . . . for receiving . . . and for converting.” As discussed above, § 112 ¶ 6 permits an inventor to express an element in a claim as a means for performing a specified function without the recital of structure.⁶

⁵ Neither Figure 2, which illustrates “housing 11” nor Figure 3, which illustrates “element 18” shows “other electronics 24.” Since there is no other reference to an item labeled 24, this might be a typographical error and should refer to microchip 25.

⁶ The normal convention is to use the indefinite noun “means” followed by a description of its function: “Ordinarily, the question whether a claim element triggers section 112(6) is not difficult. Claim drafters conventionally use the preface ‘means for’ (or ‘step for’) when they intend

1 The element under consideration arguably includes disclosure of a structure, i.e., “**microprocessor**
2 means.” A “microprocessor” is a structure. Thus, the Court considers whether § 112 ¶ 6 applies.⁷

3 If a claim recites a “means for” performing a specified function, it may nevertheless falls
4 outside the ambit of § 112 ¶ 6 if it recites a definite structure that performs the described function.
5 Cole v. Kimberly-Clark Corp., 102 F.3d 524, 531 (Fed. Cir. 1996). In deciding whether a claim that
6 recites a structure should be construed under § 112 ¶ 6, the Court should consider the degree of
7 detail with which the structure is described. Id.

8 The Court concludes that the recital of a “microprocessor” in the Claim is not a recital of a
9 definite structure. A skilled artisan would understand the phrase “microprocessor means” to be
10 indefinite as to structure because the word “microprocessor” refers to a wide range of silicon
11 microchips that contain electronic circuits. See e.g., WEBSTER’S NEW WORLD COMPUTER
12 DICTIONARY 232 (10th ed. 2003.) Thus, the Court will construe “microprocessor means” pursuant
13 to § 112 ¶ 6.

14 **i. the recited functions**

15 The recited functions of the “microprocessor means” are “receiving” and “converting.” The
16 specification does not contain any specialized definition of “receiving.” Thus, the Court construes
17 the word “receiving” as having its ordinary meaning.

18 The element recites a limitation on what is received: “the signal from the electrical means.”
19 As discussed above, the electrical means conducts an analog signal from the semiconductor strain
20 gauge to other components in a circuit. A skilled artisan would understand that the “microprocessor
21 means” receives the analog signal from the “electrical means.”

22
23
24 _____
25 to invoke section 112(6), and there is therefore seldom any confusion about whether section 112(6)
26 applies to a particular element.” Greenberg v. Ethicon Endo-Surgery, Inc., 91 F.3d 1580, 1583 (Fed.
27 Cir. 1996).

28 ⁷ This consideration was not raised with respect to “electrical means” because the word
“electrical” is not a structure.

1 The element discloses that a further function of the “microprocessor means” is to convert
2 “the [analog] signal” into an “altitude value:”⁸ the conversion for “calibration,”⁹ programmed to
3 display absolute altitude constantly, through circuitry and programming logic. (Id.) The conversion
4 is performed by a “microprocessor means.” In the written description, the inventors use
5 “microprocessor” interchangeably with “silicon chip,” “microchip,” “chip,” and “microprocessor
6 chip.” (See ‘694 Patent, Col. 4:7-9, 41-51.) A person of skill in the art would understand
7 “microprocessor” to be a solid state integrated circuit diffused onto a silicon substrate that performs
8 computing functions on digital data. See INSTITUTE OF ELECTRICAL AND ELECTRONICS
9 ENGINEERING (IEEE) DICTIONARY OF STANDARDS TERMS 306, 570, 693 (7th ed. 2000). Thus, the
10 Court concludes that the function of “conversion” to an altitude value necessarily requires
11 conversion from an analog signal to a digital signal capable of being processed by a microprocessor.

12 **ii. corresponding structure**

13 The Court considers whether the inventors recite a corresponding structure capable of
14 performing the functions of the “microprocessor means.” In the written description, the inventor
15 described a “microprocessor:”

16 Electronics included in the device 10 preferably are embodied in specially designed **silicon**
17 **chip 25** The **microchip 25 is a microprocessor** for accomplishing the functions of the
18 invention. The **chip 25 is connected in a circuit with the strain resistance element 18** and
19 **receives a resistance signal from the strain resistance element 18** and a battery or
20 batteries 29. The resistance signal represents the degree of strain in the element 18,
21 representative of the differential pressure on the two sides of the transducer diaphragm 17.
22 The resistance signal is an **analog variable signal** which is **converted by the**
23 **microprocessor chip 25** into an appropriate altitude figure.

24 (‘694 Patent, Col. 4:7-9, 41-51.)

25 ⁸ In the written description, the inventors describe the converting process as being from an
26 analog signal to “an appropriate altitude figure:”

27 The resistance signal is an **analog variable signal** which is **converted by the**
28 **microprocessor chip 25** into an **appropriate altitude figure**.

(‘694 Patent, Col. 4:48-51.) The Court concludes that the inventors used “altitude value” and
“altitude figure” interchangeably.

⁹ (‘694 Patent, Col. 4:52.)

1 Thus, microchip 25 appears to qualify as a corresponding structure for the “microprocessor
2 means.” The issue becomes whether such a structure is capable of performing all of the functions of
3 the “microprocessor means.” A person of skill in the art would understand that in order to perform
4 the function of receiving an analog signal and converting it to a digital altitude value necessarily
5 requires the presence of an analog-to-digital converter on the microchip. Although the written
6 description does not recite the presence of an analog-to-digital converter on the microchip, such
7 converters were commonly known in the art at the time of the invention. For example, in Claim 10,
8 the inventors expressly recite an invention where an analog-to-digital converter is in the
9 “microprocessor means:”

10 The altimeter device of claim 1, **further including an analog to digital converter in the**
11 **microprocessor means**, and means included in the display means for displaying the altitude
as converted.

12 (‘694 Patent, Col. 8:20-23.)

13 Thus, the Court concludes that since Claim 1 is a means-plus-function claim, its scope
14 includes microchip 25 and its equivalents.¹⁰ Accordingly, as used in Claim 1 of the ‘649 Patent, the
15 Court construes “**microprocessor means**” to mean:

16 **An apparatus in the housing for receiving an analog signal from the electrical means**
17 **and for converting it to a digital altitude value, as illustrated by the item labeled 25 in**
Figures 3 and 4, and its equivalents.

18 **B. The ‘427 Patent**

19 Claim 1 of the ‘427 Patent provides:

20 An altitude accumulator for selectively accumulating altitude changes, comprising:

21 receiver means for receiving a pressure signal representing atmospheric pressure;
22 computer means for computing altitude based upon said received pressure signal; and
23 accumulator means for selectively accumulating and providing an accumulated altitude
24 signal representing accumulated altitude changes which reach a first accumulation threshold
in a first direction from a reference altitude, said altitude changes being based upon said
computed altitude, wherein altitude changes in a second direction which do not reach a

25 ¹⁰ An invention disclosed in a claim depending from a means-plus-function claim is an
26 equivalent to the broader independent claim. See *IMS Tech., Inc. v. Haas Automation, Inc.*, 206
27 F.3d 1422, 1431-32 (Fed. Cir. 2000). The doctrine of claim differentiation is not violated because
the dependent claim is narrower, and because it does not include the means-plus-function
“equivalents.” (*Id.*)

1 second accumulation threshold **offset subsequent altitude changes in said first direction**,
2 and further wherein altitude changes in said second direction which do reach said second
accumulation threshold cause said reference altitude to change in accordance therewith.

3 a. “**offset subsequent altitude changes in said first direction**”

4 The parties dispute the meaning of the phrase “**offset subsequent altitude changes in said**
5 **first direction.**”

6 In the background section of the specification, the inventor discussed some of the desired
7 features of the invention as follows:

8 [I]t is desirable to have an accumulating altimeter which can selectively accumulate
9 altitude changes such as gains, while **selectively ignoring** some, but not all, opposing
10 altitude changes such as losses. In other words, it would be desirable to have an
11 accumulating altimeter that can **selectively ignore** insignificant altitude changes, due to such
things as mechanical vibration, slightly rolling terrain or highway overpasses, while at the
same time being capable of recognizing significant altitude changes, due to such things as
riding over a hill or into a valley.

12 (‘427 Patent, Col. 1:58-68.)

13 This discussion of “selectively ignoring” opposing altitude changes describes the *effect* of an
14 “offset.” However, it does not define *how* an “offset” occurs.

15 The written description uses the word “offset” as follows:

16 As the user ascends 30 feet to point D, the display 20 now indicates an accumulated
17 altitude gain of 30 feet, since the altitude gain has now reached the non-opposing
accumulation threshold of 30 feet, relative to the latest reference altitude of -10 feet at point
18 C. As the user continues to travel up the rise another 20 feet to the next peak at point E, the
altitude gained continues to be accumulated, resulting in an accumulated altitude gain of 50
feet.

19 As the user descends 20 feet to point F, the accumulated altitude does not change
20 since no further altitude gains have yet been made. Furthermore, since the descent is only 20
feet, i.e. less than the opposing accumulation threshold of 30 feet, a new reference altitude is
21 not established at point F. This descent of less than the opposing accumulation threshold
will be **used to offset** subsequent non-opposing altitude changes, i.e. altitude gains.

22 As the rider ascends to point G, this 20 foot gain is **offset, or cancelled out**, by the
preceding descent of 20 feet between points E and F. As the user ascends 10 feet further to
23 point H, an additional 10 feet of altitude gain is accumulated, i.e. 60 feet of altitude gain have
now been accumulated and can be displayed.

24 (‘427 Patent, Col. 4:16-39.)

25 Thus, the word “offset” and the phrase “cancelled out” are used synonymously. However,
26 neither “offset” nor “cancelled out” is defined in the written description. Furthermore, the written
27 description does not indicate that a person having ordinary skill in the art would understand the

1 terms “offset” or “cancelled out” to have a special meaning. Thus, the Court interprets the subject
2 phrase by giving the word “offset” its ordinary meaning.

3 In ordinary use, “cancelled out” is defined as “to match in force or effect.” See WEBSTER’S
4 NINTH NEW COLLEGIATE DICTIONARY 200 (1991). In ordinary use, “offset” is defined as “to
5 counterbalance or compensate.” Id. 820. Thus, the Court finds that “offset” means “to
6 counterbalance, compensate, or match in force and effect.”

7 Accordingly, as it is used in Claim 1 of the ‘427 Patent, the Court construes the phrase
8 **“offset subsequent altitude changes in said first direction”** to mean:

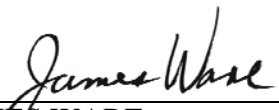
9 **to counterbalance, compensate, or match in force and effect subsequent altitude**
10 **changes in said first direction.**

11 **V. CONCLUSION**

12 In this Order, the Court has given its construction of submitted words and phrases of the ‘694
13 and ‘427 Patents.

14 The parties shall appear for a Case Management Conference on **January 25, 2010 at 10 a.m.**
15 On or before **January 15, 2010**, the parties shall file a Joint Case Management Statement. The
16 Statement shall, among other things, provide a good faith discovery plan with a proposed date for
17 the close of all discovery and a stipulation as to a mediation process.

18 Dated: December 14, 2009

19 
20 JAMES WARE
21 United States District Judge

1 **THIS IS TO CERTIFY THAT COPIES OF THIS ORDER HAVE BEEN DELIVERED TO:**

2 Bradley T. Fox brad@foxgroupllc.com
3 David Jeanchung Tsai djtsai@townsend.com
4 Frear Stephen Schmid frearschmid@aol.com
5 Robert Allan McFarlane ram@townsend.com

6 **Dated: December 14, 2009**

Richard W. Wieking, Clerk

7 **By: /s/ JW Chambers**
8 **Elizabeth Garcia**
9 **Courtroom Deputy**

10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28