

UNITED STATES DISTRICT COURT
MIDDLE DISTRICT OF FLORIDA
ORLANDO DIVISION

HARRIS CORPORATION,

Plaintiff,

-vs-

Case No. 6:07-cv-1819-Orl-28KRS

FEDERAL EXPRESS CORPORATION,

Defendant.

ORDER

This patent infringement case involves flight information communication systems. By use of such system, in-flight data is electronically collected, stored, and communicated. Plaintiff Harris Corporation ("Harris") and Defendant Federal Express Corporation ("FedEx") disagree as to how certain terms in the patents in question should be interpreted. Harris has sought pretrial claim construction requesting that the court interpret those terms. See Markman v. Westview Instruments, 517 U.S. 370 (1996). Harris seeks interpretation of the terms: "airport based," "ground based," and several other terms describing the transmission of data.¹

After reviewing the submitted documents² and hearing arguments from counsel, the

¹FedEx initially sought construction of the term "further processing, but at the Markman hearing conceded that the term did not require construction.

²The documents considered by the Court include the: (1) Motion for Claim Construction by Harris Corporation (Doc. 115, filed Dec. 7, 2009); (2) Memorandum in Opposition to Harris Corporation's Claim Construction Brief and Request for Oral Argument by Federal Express Corporation (Doc. 119, filed Dec. 12, 2009); (3) Motion for Claim Construction and Memorandum of Law in Support, and Request for Oral Argument by Federal Express Corporation (Doc. 129, filed Feb. 1, 2009); and (4) Response to Federal

Court concludes that the term "airport based" is to be construed as "located at an airport." The Court further concludes that the term "ground based" is not indefinite as Harris did not adopt the limiting definition proposed by FedEx. Finally, the Court construes the contested transmitting data terms to require the transmission of sufficient data to provide a comprehensive, long-term picture of the flight performance.

I. Background

On November 16, 2007, Harris filed the instant suit, alleging that FedEx infringed eight of its patents relating to wireless communication technologies.³ (Doc. 1). On February 1, 2008, FedEx filed its Answer and Counterclaims seeking a declaratory judgment that FedEx was not infringing the asserted patents and that the asserted patents were invalid. (Doc. 10 at 6-7). Harris then filed an Amended Complaint asserting that FedEx infringed two additional patents.⁴ (Doc. 32, filed Apr. 7, 2008). After conducting extensive discovery, Harris filed a Second Amended Complaint adding three newly-issued patents and removing five patents listed in the two prior complaints.⁵ (Doc. 75, filed Mar. 27, 2009). The Patents

Express Corporation's Motion for Claim Construction by Harris Corporation (Doc. 145, filed Feb. 12, 2010).

³The patents alleged to be infringed in the original Complaint include: U.S. Patent Nos. 6,104,914 ("the '914 patent"); 6,154,636 ("the '636 patent"); 6,173,159 ("the '159 patent"); 6,308,044 ("the '044 patent"); 6,775,545 ("the '545 patent"); and 6,990,319 ("the '319 patent"). (Doc. 1 at 2-3).

⁴U.S. Patent Nos. 6,047,165 ("the '165 patent") and 6,308,045 ("the '045 patent") were added in the Amended Complaint. (Doc. 32 at 3).

⁵U.S. Patent Nos. 7,426,387 ("the '387 patent"); 7,428,412 ("the '412 patent"); and 7,444,146 ("the '146 patent") were added in the Second Amended Complaint. (Doc. 75 at 3). The five patents no longer asserted in the Second Amended Complaint include: the '523 patent; the '545 patent; the '044 patent; the '636 patent; and the '159 patent. Id.

currently asserted against FedEx include: the '165 patent; the '637 patent; the '914 patent; the '045 patent; the '319 patent; the '387 patent; the '412 patent; and the '146 patent (collectively "Patents-In-Suit"). (Id.)

The '165 patent, entitled "Wireless Frequency-Agile Spread Spectrum Ground Link-Based Aircraft Data Communication System," is the parent application for each of the remaining Patents-In-Suit, which are directed to a flight information communication system providing a retrievable record of the flight performance of an aircraft. U.S. Patent No. 6,047,165 col:16 l.48-50. The '165 patent involves a system and a method for accumulating and storing flight performance data during the flight of an aircraft and downloading that data from the aircraft to an airport based wideband spread spectrum transceiver. Id. at col:16 l. 65-68; col:17 l. 1-8. The '637 and '914 patents are continuations of the '165 patent. The '637 patent includes a roaming feature, and the '914 patent includes an adaptive power control mechanism. The '045 patent, entitled "Wireless Ground Link-Based Aircraft Data Communication System with Roaming Feature," is a continuation of the '637 patent, and includes a frequency hopping spread spectrum transceiver. The '319 patent, entitled "Wireless Ground Link-Based Aircraft Data Communication Method," is a continuation of the '045 patent. The remaining Patents-In-Suit, the '387, '412, and '146 patents, are continuations derived from the '045 patent.⁶

II. Applicable Law

"A claim in a patent provides the metes and bounds of the right which the patent

⁶U.S. Patent Number 9,976,647 ("the '647 patent") is a continuation of the '045 patent. The '387, '412, and '146 patents are continuations of the '647 patent.

confers on the patentee to exclude others from making, using or selling the protected invention.” Burke, Inc. v. Bruno Indep. Living Aids, Inc., 183 F.3d 1334, 1340 (Fed. Cir. 1999). In construing claims, courts first examine the patent’s intrinsic evidence to define the patented invention’s scope.⁷ See, e.g., Phillips v. AWH Corp., 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc); C.R. Bard, Inc. v. U.S. Surgical Corp., 388 F.3d 858, 861 (Fed. Cir. 2004). This intrinsic evidence includes the claims themselves, the specification, and the prosecution history. See Phillips, 415 F.3d at 1314; C.R. Bard, 388 F.3d at 861. Courts give claim terms their ordinary and accustomed meaning as understood by one of ordinary skill in the pertinent art at the time of filing. Chamberlain Group, Inc. v. Lear Corp., 516 F.3d 1331, 1335 (Fed. Cir. 2008); Phillips, 415 F.3d at 1312.

“The claims themselves provide substantial guidance as to the meaning of particular claim terms.” Phillips, 415 F.3d at 1314. A term’s context in the asserted claim can be very instructive, as courts presume a difference in meaning and scope when a patentee uses different phrases in separate claims. Id. For example, when a dependent claim adds a limitation to an independent claim, it is presumed that the independent claim does not include the limitation. Id. However, courts may not use this principal to broaden claims beyond their correct scope. Id. “[C]laims must always be read in view of the specification of which they are a part.” Markman, 52 F.3d at 979.

“The specification ‘is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of the disputed term.’” Id.

⁷Claim construction is an issue of law for the court to decide. Markman, 52 F.3d at 970-71.

(quoting Vitronics, 90 F.3d at 1582). A patentee may define his own terms in the specification, giving a claim term a different meaning than the term would otherwise possess, or a patentee may disclaim or disavow the claim scope otherwise included in the ordinary and accustomed meaning of the terms. Phillips, 415 F.3d at 1315. The specification may also serve to resolve ambiguous claim terms “where the ordinary and accustomed meaning of the words used in the claims lack sufficient clarity to permit the scope of the claim to be ascertained from the words alone.” Teleflex, Inc. v. Ficoso N. Am. Corp., 299 F.3d 1313, 1325 (Fed. Cir. 2002). While “the specification may aid the court in interpreting the meaning of disputed claim language, particular embodiments and examples appearing in the specification will not generally be read into the claims.” Comark Commc’ns, Inc. v. Harris Corp., 156 F.3d 1182, 1187 (Fed. Cir. 1998) (quoting Constant v. Advanced Micro-Devices, Inc., 848 F.2d 1560, 1571 (Fed. Cir. 1988)); see also Phillips, 415 F.3d at 1323.

The prosecution history is another tool used to supply the proper context for claim construction. Home Diagnostics, Inc. v. Lifescan Inc., 381 F.3d 1352, 1356 (Fed. Cir. 2004). The doctrine of prosecution history disclaimer “limits the interpretation of claims so as to exclude any interpretation that may have been disclaimed or disavowed during prosecution in order to obtain claim allowances.” Omeg Eng’g Inc. v. Raytek Corp., 334 F.3d 1314, 1323 (Fed. Cir. 2003). This doctrine does not apply where the prosecution history is ambiguous. Computer Docking Station Corp. v. Dell, Inc., 519 F.3d 1366, 1375 (Fed. Cir. 2008). The disclaimer of claim scope must be clear and unmistakable. Id. at 1374.

Extrinsic evidence is “less significant than the intrinsic record in determining the

legally operative meaning of claim language.” Phillips, 415 F.3d at 1317 (quoting C.R. Bard, 388 F.3d at 862). Technical dictionaries and treatises may help a court understand the underlying technology and the manner in which one of skill in the art might use the claim terms, but technical dictionaries and treatises may provide definitions that are too broad or that may not be indicative of how the term is used in the patent. Id. at 1318. Similarly, expert testimony may aid a court in understanding the underlying technology and determining the particular meaning of a term in the pertinent field, but an expert’s conclusory, unsupported assertions as to a term’s definition are entirely unhelpful to a court. Id. Accordingly, extrinsic evidence is “less reliable than the patent and its prosecution history in determining how to read claim terms.” Id.

A claim is invalid as indefinite under 35 U.S.C. § 112, ¶ 2 if the claim fails to particularly point out and distinctly claim the subject matter the applicants regard as the invention. The primary purpose of the definiteness requirement of § 112 is to ensure public notice of the scope of the patentee’s legal protection, such that interested members of the public can determine whether or not they infringe. Halliburton Energy Servs., Inc. v. M-I, LLC, 514 F.3d 1244, 1249 (Fed. Cir. 2008). Thus, the definiteness inquiry focuses on how a skilled artisan understands the claims, and a claim is only indefinite if the “accused infringer shows by clear and convincing evidence that a skilled artisan would not discern the boundaries of the claim based on the claim language, the specification, and the prosecution history, as well as her knowledge of the relevant art area.” Id. at 1249-50. In the face of an allegation of indefiniteness, general principles of claim construction apply. Datamize, LLC v. Plumtree Software, Inc., 417 F.3d 1342, 1348 (Fed. Cir. 2005). “If the meaning of the

claim is discernible, even though the task may be formidable and the conclusion may be one over which reasonable persons will disagree, . . . the claim [is] sufficiently clear to avoid invalidity on indefiniteness grounds.” Exonn Res. & Eng’g Co v. United States, 265 F.3d 1371, 1375 (Fed. Cir. 2001). Thus, a claim is indefinite only if its meaning and scope are “insolubly ambiguous.” Id. “Proof of indefiniteness requires such an exacting standard because claim construction often poses a difficult task over which expert witnesses, trial courts, and even the judges of the court may disagree.” Id.

III. Analysis

A. Airport Based

The ‘165, ‘914, and ‘637 patents contain the term “airport based.”⁸ Claim 1 of the ‘165 patent uses the term “airport based” to describe the location of the wideband spread spectrum transceiver, the archival data store, and the processor.⁹ Claim 1 of the ‘914 patent

⁸The term airport based is found in: Claims 1, 8, 17, 23, and 30 of the ‘165 patent; Claims 1, 13, 29, 40, and 52 of the ‘914 patent; and Claims 1, 14, 31, and 43 of the ‘637 patent.

⁹Claim 1 of the ‘165 patent recites:

1. A system for providing a retrievable record of the flight performance of an aircraft comprising:
 - . . .
 - an airport based wideband spread spectrum transceiver comprising a receiver that
 - receives the wideband spread spectrum communication signal from the aircraft and demodulates the signal to obtain the flight performance data;
 - an airport based archival data store coupled to said airport based wideband spread
 - spectrum transceiver that receives and stores said flight performance data; and
 - an airport based processor coupled to said archival data store for retrieving flight
 - performance data from the airport based archival data store for further

uses the term "airport based" to describe the location of the wideband spread spectrum transceiver.¹⁰ The '637 patent uses the term to describe the location of the spread spectrum transceiver.¹¹ The parties dispute the definiteness of the term "airport based" as it is used in these patents.

In its Motion for Claim Construction, Harris argued that the plain and ordinary meaning of the term "airport based" is "located at or proximate to an airport." At oral argument, Harris amended this proposed definition, stating that the language "proximate to" is not necessary to construe the term "airport based." Instead, Harris now alleges that an appropriate construction of the term "airport based" is "located at an airport." Harris maintains that this construction is supported by the patent specification, which refers to a number of locations commonly considered to be located at an airport. Harris also contends that the definiteness of the term is supported by the fact that the '165 patent has

processing.

¹⁰Claim 1 of the '914 patent recites:

1. A system for providing a retrievable record of the flight performance of an aircraft comprising: . . .
 - an airport based wideband spread spectrum transceiver comprising a receiver that
 - receives the wideband spectrum communication signal from the aircraft and demodulates the signal to obtain the flight performance data.

¹¹Claim 1 of the '637 patent recites:

1. A system for providing a retrievable record of the flight performance of an aircraft comprising: . . .
 - an airport based spread spectrum transceiver comprising a receiver that receives the spectrum communication signal from the aircraft and demodulates the signal to obtain the flight performance data, said airport based spread spectrum transceiver further comprising

successfully undergone reexamination, thus confirming the validity of the claim terms.

In response, FedEx argues that the term “airport based” is indefinite because there is no ordinary and customary definition of “airport based” in the relevant field, and the specification does not use the phrase or otherwise define it, instead using the terms airport, airport located, airport resident, and airport base station. FedEx concedes that those of ordinary skill would likely agree that terminal gates and runways are “airport based,” but argues the term is indefinite nonetheless because there is no outer limit to the term, in other words, the term fails to provide a boundary informing the public where the term ends.

“In some cases, the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction involves little more than the application of the widely accepted meaning of commonly understood terms.”¹² Phillips, 415 F.3d at 1314 (citing Brown v. 3M, 265 F.3d 1349, 1352 (Fed. Cir. 2001)). In such cases, “a sound claim construction need not always purge every shred of ambiguity. The resolution of some line drawing problems - especially easy ones [-] are properly left to the trier of fact.” Acumed LLC v. Stryker Corp., 483 F.3d 800, 806 (Fed. Cir. 2007) (upholding the district court’s finding that the court’s exclusion of “sharp corners or sharp angles” from the claim construction was not indefinite where the court did not precisely define how sharp of an angle was too sharp); see also PPG Indus. v. Guardian Indus. Corp., 156 F.3d 1351, 1355 (Fed. Cir. 1998) (“[A]fter the court has defined the claim with whatever

¹²For example, in Brown v. 3M, 265 F.3d 1349 (Fed. Cir. 2001), the Federal Circuit found that the term “or” as used in the disputed claim language stating “at least one of two-digit, three-digit, or four digit representations,” was not a technical term of art and therefore did not require elaborate interpretation. Id. at 1352.

specificity and precision is warranted by the language of the claim and the evidence bearing on the proper construction, the task of determining whether the construed claim reads on the accused product is for the finder of fact.” “The degree of precision necessary for adequate claims is a function of the nature of the subject matter.” Miles Labs., Inc. v. Shandon Inc., 997 F.2d 870, 875 (Fed. Cir. 1993) (citing Hyrbritech Inc. v. Monoclonal Antibodies, Inc., 802 F.3d 1367, 1385 (Fed. Cir. 1986)).

Here, FedEx did not meet its burden of establishing that one of ordinary skill would not understand what is included within the plain and ordinary meaning of the term “airport based.” The construction of the term “airport based” as “located at an airport” is readily apparent, even to lay judges, and involves little more than the application of the widely accepted meaning of commonly understood terms. Phillips, 415 F.3d at 1314. Furthermore, while the specification does not specifically define the term “airport based,” it clearly states that particular components of the claimed invention are to be located at an airport. See, e.g., U.S. Patent 6,047,165, cl.9 l. 35-44 (“The number of wireless routers installed at any given airport and the location of each ground subsystem within the geographical confines of the airport is preferably tailored in accordance with a number of factors, such as the topography of the airport, including the location of a tower relative to the terminal’s gates, and a desired location of [a] wireless router that facilitates access to a communication path to the remote flight operations control center.”).

To the extent FedEx argues that “located at an airport” is indefinite because it will create line drawing problems for the jury, FedEx misstates the law of indefiniteness. The definiteness inquiry focuses on how a *skilled artisan* understands the claims, and a claim

is only indefinite if the “accused infringer shows by clear and convincing evidence that a *skilled artisan* would not discern the boundaries of the claim based on the claim language, the specification, and the prosecution history, as well as her knowledge of the relevant art area.” Halliburton, 514 F.3d at 1249 (emphasis added). Moreover, a sound claim construction need not remove all shreds of ambiguity from a term, and a claim is not indefinite simply because it is imprecise.¹³ Acumed, 483 F.3d at 806; Hybritech, 802 F.2d at 1367. Line drawing problems, particularly nontechnical line drawing problems such as those raised by FedEx, are properly left to the trier of fact. See Acumed, 483 F.3d at 806. Accordingly, the Court finds that the term “airport based” is not indefinite, and that the plain meaning of term “airport based” is “located at an airport.”

B. Ground Based

Each of the Patents-In-Suit contain the term “ground based.” By way of example, the ‘045 patent recites a ground based spread spectrum transceiver, a ground based archival data store coupled to said ground based spread spectrum transceiver, a ground based processor, and a ground based archival data store.¹⁴

¹³“Where the language is as precise as the subject matter permits, the courts can demand no more, the claims clearly are definite.” Hybritech, 802 F.2d at 1367 (finding the term “calculating affinity” to be definite notwithstanding the fact that the calculations were not precise or standardized, where the claims were as precise as the subject matter permitted).

¹⁴Claim 1 of the ‘045 patent recites:

1. A system for providing a retrievable record of the flight performance of an aircraft comprising: . . .
a ground based spread spectrum transceiver comprising a receiver that receives the
frequency hopping spread spectrum communication signal from the aircraft and demodulates the signal to obtain the flight performance

Harris proposes that the plain and ordinary meaning of the term "ground based," mainly "located on the ground," is sufficient to define the term. In support of this contention, Harris points to the testimony of FedEx's first technical expert, Dr. Helfrick, wherein Dr. Helfrick opined that the term means "equipment, components, or other items that are located or based anywhere on the ground." (Rebuttal Expert Report of Albert Helfrick, P.E., Ph.D., Concerning Infringement at 8, ¶ 43).

Notwithstanding Dr. Helfrick's opinion, FedEx maintains that "ground based," like airport based, is invalid as indefinite. FedEx alleges that Harris specifically defined "ground based" as "at or near an airport," and that "at or near an airport" suffers from the same indefiniteness problems as the term "airport based."

There is a "heavy presumption" that a claim term carries its ordinary and customary meaning. Johnson Worldwide Assocs., Inc. v. Zebco Corp., 175 F.3d 985, 989 (Fed. Cir. 1999). In the absence of an "express intent to impart a novel meaning to claim terms, an inventor's claim terms take on their ordinary meaning." Teleflex, 299 F.3d at 1325. A patentee may overcome this heavy presumption and narrow a claim term's ordinary meaning if the "patentee acted as his own lexicographer and clearly set forth a definition of the disputed claim term in either the specification or prosecution history." CCS Fitness, Inc. v.

data;
a ground based archival data store coupled to said ground based spread spectrum
transceiver that receives and stores said flight performance data; and
a ground based processor coupled to said archival data store for retrieving flight
performance data from the ground based archival data store for further processing.

Brunswick Corp., 288 F.3d 1359, 1366 (Fed. Cir. 2002); see also Teleflex, 299 F.3d at 1326 (finding that the prosecution history may demonstrate that the patentee intended to deviate from a term's ordinary and customary meaning "if it shows the applicant characterized the invention using words of expression of manifest exclusion or restriction during the administrative proceedings before the Patent and Trademark Office").

Here, FedEx maintains that Harris limited the scope of the claim term "ground based" to "located at or near an airport" in an effort to distinguish its invention from prior art that did not teach landing at an airport. In support of this argument, FedEx cites particular statements made by Harris during the reexamination of the '045 patent, contending that these statements conclusively demonstrate that Harris adopted a limiting definition of the term "ground based." In one such statement, Harris argued:

This is clearly different from the present claimed invention where the aircraft accumulates data in a data store during the entire flight of the aircraft, *completes its flight and lands at an airport*, and downloads the accumulated data to a ground based transceiver over a spread spectrum communication signal.

(Doc. 119-34 at 13) (emphasis in original). In another statement, Harris argued that the claimed invention "accumulated and stored [data] during flight of the aircraft and then downloaded [the data] after the aircraft lands to a ground resident subsystem, *typically* located at or near an airport."¹⁵ (Id. at 3) (emphasis added).

These statements, made during the extensive reexamination of the '045 patent, are insufficient to overcome the heavy presumption that claim terms take on their ordinary

¹⁵In citing this particular passage, FedEx declined to cite the word "typically" and instead represented that the statement defined "ground based" as "at or near an airport." (Doc. 119 at 29).

meaning. These statements do not reveal the requisite “express intent to impart a novel meaning to claim terms.” Teleflex, 299 F.3d at 1325. Instead, these statements merely provided the PTO with more specific examples of where a ground based subsystem *may* be located. Thus, Harris did not limit the scope of the term “ground based” to “at or near an airport” such that “ground based” suffers from the proposed indefiniteness problems of the term “at or near an airport.” Accordingly, the Court finds the plain and ordinary meaning of the term “ground based” to be “located on the ground.”

C. Transmitting Data

Each of the inventions claimed in the Patents-In-Suit involves the transmission of data from an aircraft. The claim language used to describe this transmission of data varies between individual claims of single patents as well as between the Patents-In-Suit themselves. In the ‘165 patent, for example, Claim 1 recites:

A system for providing a retrievable record of the flight performance of an aircraft comprising: . . . a transmitter that is operative after the aircraft completes its flight and lands at an airport to download the flight performance data that has been accumulated and stored by said archival data store during flight over a wideband spread spectrum communication signal

By way of contrast, Claim 8 of the same patent recites:

A system for exchanging information to and from an aircraft comprising: . . . a transmitter that is operative after the aircraft completes its flight and lands at an airport to download said flight performance data that has been accumulated and stored by said archival data store during flight

The ‘319 patent employs slightly different language to describe the transmission of data.

Claim 1 of the ‘319 patent recites:

A method of providing data from an aircraft comprising: . . . generating aircraft data representative of the continuously monitored aircraft flight performance

during an entire flight of the aircraft from at least take-off to landing . . . after the aircraft completes its flight and lands at an airport, transmitting the accumulated, stored generated aircraft data from the ground data link unit over a wideband spread spectrum communications signal

FedEx proposes that the Court construe the claim language describing the transmission of data to require the transmission of *all* accumulated and stored data. FedEx relies heavily on the prosecution history in support of this proposed construction. FedEx maintains that the arguments presented by Harris in an effort to overcome U.S. Patent No. 5,445,347 patent ("the '347 patent") and other similar references expressly limited the scope of the invention to transmitting *all* of the accumulated and stored data. In addition, FedEx contends that its proposed construction is supported by the presence of the word "the," in claims describing "the accumulated and stored data." According to FedEx, the antecedent basis for "the" in such claims is "the flight performance data," and the plain meaning of "the flight performance data" requires all accumulated and stored data to be transmitted.

In response, Harris argues that the claim language describing the transmission of data is capable of being understood by a lay jury and therefore should be given its plain and ordinary meaning. Harris maintains that FedEx's proposed construction introduces limitations into the claims that lack support in either the claim language or the specification. With regards to the prosecution history, Harris contends that it is prolonged and confusing, representing an ongoing negotiation with the PTO that resulted in a number of changes made to the claim language, none of which support the interpretation proposed by FedEx.

A patentee's statements during prosecution, whether relied on by the examiner or not, are relevant to claim interpretation. Laitram Corp. v. Morehouse Indus., Inc., 143 F.3d 1456, 1462 (Fed. Cir. 1998). The court "takes the patentee at its word and will not construe the

scope of [a patent] more broadly than the patentee itself clearly envisioned.” Microsoft Corp. v. Multi-Tech Sys., Inc., 357 F.3d 1340, 1350 (Fed. Cir. 2004). The prosecution history of one patent is relevant to an understanding of the scope of a common term in a second patent stemming from the same parent application. Laitram, 143 F.3d at 1460 (applying the prosecution histories of two sibling patents, which shared a common written description, to one another); Jonsson v. Stanley Works, 903 F.2d 812, 818 (Fed. Cir. 1990) (applying the construction of the same term in the prosecution history of a parent patent to the continuation-in-part application). Furthermore, any statement of the patentee made in the prosecution of a related application *as to the scope of the invention* is relevant to claim construction for related patents, even where that statement is made in the prosecution of a later application. Microsoft, 357 F.3d at 1350 (emphasis added). Here, the prosecution history relied on by FedEx to support its proposed construction is relevant to the scope of the claimed invention, mainly the ability to acquire a comprehensive, long term picture of a flight derived from the totality of the flight performance data. Accordingly, these statements are relevant to the claim construction of all of the Patents-In-Suit.

In the present case, the prosecution history of the Patents-In-Suit is particularly complex, involving eight different patents and two reexaminations.¹⁶ The majority of the

¹⁶ In construing claims, a court should consider the patent’s prosecution history, if it is in evidence. Markman, 52 F.3d at 980. However, “because the prosecution history represents an ongoing negotiation between the PTO and the applicant, rather than the final product of that negotiation, it often lacks the clarity of the specification and thus is less useful for claim construction purposes.” Id. (citing Inverness Med. Switz. GmbH v. Warner Lambert Co., 309 F.3d 1373, 1380-82 (Fed. Cir. 2002)). “Nonetheless, the prosecution history may be helpful in demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim narrower than it would otherwise be.” Id.

prosecution history cited by FedEx relates to Harris' attempts to overcome the '347 patent and other similar references. The '347 patent, entitled "Automated Wireless Preventative Maintenance Monitoring System for Magnetic Levitations Trains and Other Vehicles" recites a system capable of wirelessly transmitting data signals representative of a vehicle's operational status. In order to overcome this reference, Harris made a number statements to the PTO stressing that the invention accumulates and stores flight performance data during the flight of the aircraft. Harris repeatedly argued that, unlike the '347 patent, the claimed invention acquires a "comprehensive, long-term picture derived from the totality of the flight performance data." (Doc. 119-35 at 14). In contrast, Harris characterized the '347 patent as reciting a system that "does not accumulate and store data in a memory for transmission, but instead sends out a 'snapshot' of the data as it is being generated by the data acquisition unit while the aircraft is airborne, not on the ground." (Doc. 119-37 at 10) (emphasis omitted). FedEx maintains that these arguments necessarily limit the scope of the invention to transmitting all of the accumulated and stored data.

As previously discussed, statements made during prosecution may limit the meaning of a claim term where the patentee makes a "clear and unmistakable disavowal of scope . . ." Purdue Pharma L.P. v. Endo Pharms., Inc., 438 F.3d 1123, 1136 (Fed. Cir. 2006). A patentee may accomplish this by "clearly characterizing the invention in a way to try to overcome rejections based on prior art." Microsoft, 357 F.3d at 1349. Prosecution disclaimer does not, however, apply to an ambiguous disavowal. Computer Docking, 519 F.3d at 1375. For example, prosecution disclaimer does not support the judicial narrowing

of a clear claim term where the inventors' statements were amendable to multiple reasonable interpretations. N. Telecom Ltd. v. Samsung Elec. Co., 215 F.3d 1281, 1293-95 (Fed. Cir. 2000). Furthermore, if "remarks made to distinguish claims from the prior art are broader than necessary to distinguish the prior art, the full breadth of the remark is not a clear and unambiguous disavowal of claim scope" 3M Innovative Props. Co. v. Avery Dennison Corp., 350 F.3d 1365, 1373 (Fed. Cir. 2003).

Here, Harris' arguments, when considered in the context of the prosecution history, are amendable to multiple reasonable interpretations. The '347 patent recites a system for automatically detecting the operational conditions of a vehicle and transmitting data signals during the operation of the vehicle. Harris argues that its invention does not provide snapshots of operational data in real time, but instead provides a "comprehensive long-term picture derived from the totality of the flight performance data." (Doc. 119-44 at 8). Taking into consideration the nature of the invention described in the '347 patent, it is reasonable to interpret Harris' arguments as relating to the extent and type of data generated, not necessarily the amount of data transmitted. Thus, despite FedEx's characterization of the prosecution history as relating exclusively to the transmission of "all" data, the cited prosecution history is in fact amendable to multiple reasonable interpretations and therefore does not support the proposed narrowing of the contested claims terms.

Taken together, the prosecution history supports an argument that Harris disavowed the transmission of a subset of data less than that necessary to provide an overall picture of the flight performance. It does not, however, support an argument that Harris disavowed the transmission of any amount of data less than "all" accumulated and stored data. This

is particularly true in light of those claims that refer to the accumulated and stored data as merely "representative of aircraft flight performance." See, e.g., U.S. Patent Nos. 6,308,045B1, and 6,990,319. If the accumulation and storage of representative data is sufficient to provide a "comprehensive long-term picture derived from the totality of the flight performance data," it follows that something less than "all" of the accumulated and stored data would be sufficient to provide the same. How much less remains a question for the jury. Furthermore, nowhere in the claims, the specification, or the prosecution history does Harris or the PTO state that "all" of the recorded representative data is required to create a comprehensive, long term picture representative of flight performance, and FedEx has not provided evidence to the contrary. Accordingly, the Court finds that the prosecution history does not amount to a "clear and unmistakable disavowal of scope during prosecution" and therefore does not support FedEx's proposed claim construction. Purdue Pharma., 438 F.3d at 1136.

FedEx next argues that the claims of the Patents-In-Suit require that all accumulated, stored flight performance data be transmitted from the aircraft to the ground because the antecedent basis for the articles "the" and "said" in the proceeding clause necessitates such a construction. By way of example, Claim 1 of the '045 patent recites:

A system for providing a retrievable record of the flight performance of an aircraft comprising: . . .
a ground data link unit that obtains flight performance data representative of aircraft flight performance during flight of the aircraft, said ground data link unit comprising:
a) an archival data store operative to accumulate and store *flight performance data during the entire flight of the aircraft*, and
b) a frequency hopping spread spectrum transceiver coupled to said archival data store, and comprising a transmitter that is operative to download *the flight performance data that has been accumulated and*

stored by said archival data store during the entire flight

U.S. Patent No. 6,308,045 B1 (emphasis added).

In support of its proposed construction, FedEx relies on Process Control Corp. v. HydReclaim Corp., 190 F.3d 1350 (Fed. Cir. 1999).¹⁷ In Process Control, the Federal Circuit construed the term “the discharge rate” in clause [d] of a patent claim to refer to the same rate as the term “a discharge rate” previously stated in clause [b]. Id. at 1363. This logical construction is distinguishable from FedEx’s proposed construction because, in reaching the construction in Process Control, the Federal Circuit was not required to insert language into a claim. Here, FedEx does not ask that the Court construe “the/said data” to be flight performance data as opposed to some other form of data. Instead, FedEx asks the Court to effectively insert “all” into the claim language in the absence of support for such an

¹⁷In support of its proposed construction, FedEx also cites Ampex Corp. v. Eastman Kodak Co., 460 F. Supp.2d 541 (D. Del. 2009). In Ampex, the court was similarly asked to construe the terms “said” and “the.” Id. at 549. The court concluded that the first use of the term “data” provided an antecedent basis for the later references to “said data” or “the data.” Id. Since each antecedent “data” term referred to the numerical information representing the components of each pixel in an image, the “said/the data” logically referred to the set of numerical information necessary to recreate those pixels, each pixel being represented by three eight bit data bytes defining luminance, red chrominance, and blue chrominance components. Id. Therefore, the court reasoned that to the extent that the data necessary to achieve the same pixels must be the same data originally referenced, the claims require that sameness. Id. However, the court also noted that “to the extent any difference in [data] can occur and still achieve the same pixel values, and to that extent only, a variation in the [data] is contemplated by the claims.” Id. Thus, Ampex does not stand for the proposition that “the/said data” necessarily refers to “all” of the data contemplated in the antecedent basis. Instead, to the extent “the/said data” could differ from the data in the antecedent basis and still achieve the same overall intended result, here the same pixel in a video image, variation was permissible.

addition in the specification or the prosecution history.¹⁸ Moreover, unlike Process Control, adopting FedEx's proposed construction would not provide meaning to an otherwise indefinite term.¹⁹ Clause [b] in Claim 1 of the '045 patent recites "*the flight performance data that has been accumulated and stored by said archival data store during flight.*" (emphasis added). Thus, the Court need not necessarily refer back to a previous clause in order to provide meaning to the term "flight performance data," as clause [b] itself provides the requisite meaning.²⁰ Where such reference is not required to resolve ambiguity in the claim, the Federal Circuit's holding in Processor Control does not dictate that the Court adopt FedEx's proposed construction. This is particularly true in light of the fact that the first reference to "data" in the claim terms requires only that the data be "representative of aircraft flight performance." As discussed previously, if the overall accumulated and stored data

¹⁸The parties additionally argue that the references in the specification to the compression of data and error free transmission support their respective constructions. See, e.g., U.S. Patent No. 6,047,165 col:11 l.26-57. Such arguments are not persuasive because they relate to the data received by the airport based or ground based component, not the transmission of data from the aircraft based transceiver.

¹⁹In Process Control, the "court did not rely principally on antecedent basis to support its rationale." Microprocessor Enhancement Corp. v. Texas Instruments Inc., 520 F.3d 1367, 1376 (Fed. Cir. 2008).

²⁰Since deciding Process Control in 2006, the Federal Circuit has provided additional guidance as to its meaning. See Microprocessor Enhancement Corp. v. Texas Instruments Inc., 520 F.3d 1367 (Fed. Cir. 2008). In Microprocessor, the court agreed with the district court's initial assumption that a single "claim term should be used consistently with its appearance in other places in the same claim or in other claims of the same patent." Id. at 1375 (quoting Rexnord Corp. v. Laitram Corp., 274 F.3d 1336, 1342 (Fed. Cir. 2001)). Nonetheless, the court found that "the patentee's mere use of a term with an antecedent does not require that both terms have the same meaning. Specifically, Process Control did not announce a rule that the reference to an antecedent basis absolutely requires a term to be consistently construed across uses." Id.

need only be representative of the aircraft flight performance, it is counterintuitive to argue that “all” of the representative data is required by subsequent claim language, absent clear support in the claims, the specification, the prosecution history, or the extrinsic evidence. See Ampex, 460 F. Supp. 2d at 549 (finding that, to the extent processing changes data values but still maintains the same outcome, such processing will not remove the system from the scope of the claim terms defined by an antecedent basis).

In the end, “[t]he construction that stays true to the claim language and most naturally aligns with the patent’s description of the invention will be [] the correct construction.” Phillips, 415 F.3d at 1316 (quoting Renishaw PLC v. Marposs Societa’ per Azioni, 158 F.3d 1243, 1250 (Fed. Cir. 1998)). Accordingly, the Court declines to adopt FedEx’s proposed interpretations of the transmitting stored data limitations. The Court instead concludes that the transmitting data limitations require the transmission of sufficient data to provide a comprehensive, long-term picture of the flight performance data.²¹

Conclusion

The Court finds that the disputed claim terms are not invalid as indefinite. The proper construction of the term “airport based” is “located at an airport.” With regards to the term “ground based,” the Court finds that Harris did not adopt the limiting definition “located at or near an airport.” Instead, the proper construction of the term “ground based” is “located on

²¹ The Court’s construction applies to all of the disputed transmission of data terms. See U.S. Surgical Corp. v. Ethicon, Inc., 103 F.3d 1554, 1568 (Fed. Cir. 1997) (“The Markman decisions do not hold that a trial judge must repeat or restate every claim term in order to comply with the ruling that resolution of claim construction is for the court. Claim construction is a matter of resolution of disputed meanings and technical scope, to clarify and when necessary to explain what the patentee covered by the claims. . . . It is not an obligatory exercise in redundancy.”).

the ground.” Finally, the Court holds that the contested transmitting data terms are not to be construed as requiring the transmission of “all” data. The terms require only the transmission of data sufficient to provide a comprehensive, long-term picture of the flight performance.

In accordance with the forgoing, it is **ORDERED** and **ADJUDGED** as follows:

1. The Motion for Claim Construction by Harris Corporation (Doc. 115) is **GRANTED in part** and **DENIED in part**. The Motion is **GRANTED** to the extent it seeks to have the Court construe the term “ground based” as “located on the ground.” The Motion is **DENIED** in all other respects.
2. The Motion for Claim Construction and Memorandum of Law in Support (Doc. 129) is **DENIED as moot**.

DONE and **ORDERED** in Orlando, Florida on March 22, 2010.


JOHN ANTOON II
United States District Judge

Copies furnished to Counsel of Record