

**UNITED STATES DISTRICT COURT
DISTRICT OF MINNESOTA**

Global Traffic Technologies,
LLC,

Plaintiff,

v.

Emtrac Systems, Inc., Rodney K.
Morgan, STC, Inc., and KM
Enterprises, Inc.,

Defendants.

**MEMORANDUM OPINION
AND ORDER**

Civil No. 10-4110 ADM/JJG

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Jonathan D. Jay, Esq., Hellmuth & Johnson PLLC, Edina, MN; and, Terrance C. Newby, Esq., Leffert Jay & Polglaze, P.A., Minneapolis, MN, on behalf of KM Enterprises, Inc., STC, Inc., and Rodney K. Morgan.

I. INTRODUCTION

Defendants Rodney K. Morgan (“Morgan”), STC, Inc. (“STC”), and KM Enterprises, Inc. (“KME”) (collectively, the “Defendants”) move for Judgment as a Matter of Law or New Trial [Docket Nos. 411, 369, 372, 375, 378, 381], for a finding of Laches and Equitable Estoppel [Docket No. 395], and for an amended ruling on the claim language of Claim 16 [Docket No. 401]. Plaintiff Global Traffic Technologies, LLC (“GTT”) opposes these motions, and moves for Confirmation of Willful Infringement, Enhancement of Damages, and Prejudgment Interest [Docket No. 364]. For the reasons stated herein, Defendants’ motions are denied and GTT’s motion is granted in part and denied in part.

II. BACKGROUND

On September 20, 2013, a jury found Defendants infringed GTT's Patent No. 5,539,398 (the "'398 Patent" or the "Patent"). The jury rejected Defendants' invalidity defenses concerning the '398 Patent and calculated damages in the amount of \$5,052,118. Finally, the jury found by clear and convincing evidence that Defendants willfully infringed the '398 Patent.

III. DISCUSSION

A. Judgment as a Matter of Law ("JMOL") Standard

Rule 50(b) of the Federal Rules of Civil Procedure governs renewed motions for judgment as a matter of law. Under Rule 50, the court may allow judgment on the verdict, order a new trial, or direct the entry of judgment as a matter of law. Fed. R. Civ. P. 50(b)(1)-(3). The standard of review for granting a Rule 50(b) motion is whether sufficient evidence exists to support the jury verdict. A motion for judgment as a matter of law should only be granted when "all the evidence points one way and is susceptible of no reasonable inferences sustaining the position of the nonmoving party." Washburn v. Kan. City Life Ins. Co., 831 F.2d 1404, 1407 (8th Cir. 1987) (citation omitted). In deciding a motion for judgment as a matter of law, the court must view the evidence in the light most favorable to the party who prevailed before the jury, making all reasonable inferences in that party's favor. Id. (citation omitted). It is not the place of the court to substitute its own judgment for that of the trier of fact. Ryther v. KARE 11, 864 F. Supp. 1510, 1519 (D. Minn. 1994) (citing Nelson v. Boatmen's Bancshares, Inc., 26 F.3d 796, 803 (8th Cir. 1994)).

B. New Trial Standard

The decision whether to grant a new trial under Federal Rule of Civil Procedure 59(a) is committed to the discretion of the district court. Pulla v. Amoco Oil Co., 72 F.3d 648, 656 (8th Cir. 1995). “A new trial is required only when necessary to avoid a miscarriage of justice.” Gearin v. Wal-Mart Stores, Inc., 53 F.3d 216, 219 (8th Cir. 1994) (citation omitted). “While the standard for granting a new trial is less stringent than for judgment as a matter of law, a new trial shall be granted only to prevent injustice or when the verdict strongly conflicts with the great weight of evidence.” Maxwell v. J. Baker, Inc., 160 F.R.D. 580, 581 (D. Minn. 1995). Similar to the standard for granting judgment as a matter of law, a court reviewing a motion for a new trial is “not free to reweigh the evidence and set aside the jury verdict merely because the jury could have drawn different inferences or conclusions or because judges feel that other results are more reasonable.” Fireman’s Fund Ins. Co. v. Aalco Wrecking Co., 466 F.2d 179, 186 (8th Cir. 1972) (quoting Tennant v. Peoria & Pekin Union Ry., 321 U.S. 29, 35 (1944)).

C. Claim Construction and Sufficiency of the Evidence for Infringement

Defendants argue “the Jury’s finding of infringement of Claim 1 is erroneous, unsupported by the language of the Patent and contrary to the evidence offered at trial regarding how the Emtrac System functions.” Defs.’ Br. Supp. JMOL [Docket No. 413] at 12. No reasonable jury, Defendants argue, could conclude the Emtrac System infringes Claim 1 of the ’398 Patent, which provides:

A system for determining whether a vehicle having an associated vehicle path is within an allowed approach of a location, comprising:
navigation means, associated with the vehicle, for generating vehicle data at periodic intervals along the vehicle path, wherein the vehicle data includes vehicle position data;
means for transmitting the vehicle data;

means, associated with the location, for receiving the vehicle data;
mapping means, associated with the location, for storing a plurality of
positions corresponding to allowed approaches to the location and
providing therefrom a map of allowed approaches;
evaluation means for comparing the vehicle data to the map of
allowed approaches to determine whether the vehicle path
is within an allowed approach.

Defendants proceed line by line, making non-infringement arguments based, not on evidence presented at trial, but rather on their view of how claim terms should have been construed.

Defendants' Br. Supp. JMOL, at 3-12. Defendants claim the Emtrac System does not generate "vehicle data" as that term is "defined by the Patent;" and does not transmit vehicle data; and does not receive data, "associated with the location;" and does not have "mapping means;" and does not determine if the vehicle is within an allowed approach. Id.

Claim terms are "generally given their ordinary and customary meaning," which is "the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application." Phillips v. AWH Corp., 415 F.3d 1303, 1312-13 (Fed. Cir. 2005).

The Court construed the disputed Patent terms in July 2012. See Global Traffic Techs., LLC v. Emtrac Sys., No. 10-4110, 2012 U.S. Dist. LEXIS 96866 (D. Minn. July 13, 2012).¹ The Court determined all disputed terms in the claims are entitled to their plain and ordinary meaning. Id. Defendants suggested the Patent places location-specific limitations on the terms which would narrow the scope of the patent coverage. See id. The Court determined "that

¹ Claim construction is a matter of law. Markman v. Westview Instruments, Inc., 52 F.3d 967, 979 (Fed. Cir. 1995).

Defendants’ proposed construction, with its locational limitation, would unduly limit the broad phrase “associated with the location.” Id. at *8.

The Court addressed claim construction again in considering Defendants’ summary judgment motion. See Global Traffic Techs., LLC v. Emtrac Sys., 946 F. Supp. 2d 884 (D. Minn. 2013). The Court determined further claim construction was unnecessary before trial. The Markman hearing was sufficient and all terms were to be considered by the jury using their plain meaning.²

The course of trial did not change the Court’s view of claim construction. The language of the Patent was relatively clear, and no further claim construction was necessary. Defendants are not entitled to judgment as a matter of law on this basis.

In addition to their claim construction arguments, Defendants argue that based on the evidence presented at trial, no reasonable jury could have found that the Emtrac System infringed Claim 1 or Claim 16. In conflict with Defendants’ argument, Plaintiff’s expert, Dr. Charles Neuhauser, went through every limitation of the asserted claims and explained in detail where each limitation is found in the Emtrac GPS System. Trial Tr. 347-88. The jury evaluates the credibility of the parties’ experts and the jury was entitled to credit Dr. Neuhauser’s

² Claim construction was made procedurally more difficult and complicated by Defendants’ tardy raising of terms claimed to be disputed. See Global Traffic, 946 F. Supp. 2d at 904 (“The Court will not construe further claims at this time but will await the context of the trial to discern whether there are additional claim constructions germane to the contested issues at trial.”). In their JMOL brief, Defendants assert non-infringement of Claim 16 based on a number of claim construction arguments (many that are the same or similar to claim construction arguments already addressed in Claim 1 arguments). Defendants did not request the Court to construe these terms for Claim 16. See Markman Brs. [Docket Nos. 74 and 82], Mem. Supp Summ. J. [Docket No. 125], Motion in Limine [Docket No. 268], Trial Brief [Docket No. 271]; see also Trial Tr. Section III.I. below discusses Defendants’ Claim 16 “Indefiniteness” argument.

testimony that the Emtrac System includes the features of Claims 1 and 16 of '398 Patent. Energy Transp. Grp., Inc. v. William Demant Holding A/S, 697 F.3d 1342, 1352 (Fed. Cir. 2012). Defendants have not carried their “onerous burden” of showing that, even when the record is viewed most favorably to GTT, there is a “complete absence of probative facts” to support the jury’s conclusions. Inacom Corp. v. Sears, Roebuck & Co., 254 F.3d 683, 688-89 (8th Cir. 2001). Therefore, Defendants are not entitled to a judgment as a matter of law based on sufficiency of the evidence with regards to infringement.

For these same reasons, the Court is convinced there was no miscarriage of justice. The parties were given a fair opportunity to present their case and the jury weighed the evidence of infringement. Defendants are not entitled to a new trial.

D. Admission of Morgan Testimony

“[A] district court has wide discretion in admitting and excluding evidence.” Harris v. Chand, 506 F.3d 1135, 1139 (8th Cir. 2007). The Eighth Circuit “will not set aside a jury verdict unless the district court clearly and prejudicially abused its discretion in determining whether or not to admit evidence.” Shaw Group, Inc. v. Marcum, 516 F.3d 1061, 1068 (8th Cir. 2008). To warrant a new trial, an evidentiary error must have been so prejudicial that a new trial, absent the error, would be likely to produce a different result. Pointer v. DART, 417 F.3d 819, 822 (8th Cir. 2005); Gill v. Maciejewski, 546 F.3d 557, 562 (8th Cir. 2008).

Defendants argue a new trial is warranted on Claim 16 because the Court permitted at trial “extensive cross examination of Defendant Kris Morgan on this issue of whether the Emtrac System infringed Claim 16.” Defs.’ Br. Supp. JMOL at 14. Morgan testified he intentionally chose not to read the Patent, read the 3M (which later became GTT) product manual for its GPS

traffic preemption system, and designed and developed the Emtrac System. Trial Tr. 609-11. Morgan, as a developer, professed intimate knowledge of the Emtrac System. Pl.'s Trial Ex. 77. Morgan testified that he "encourag[ed] [Brad] Cross to help design it and manufacture" his Emtrac System with GPS. Trial Tr. 637. Morgan repeatedly claimed the Emtrac System did not infringe and the Court allowed GTT to ask Morgan questions on that point. Id. 611-12. The jury weighed the evidence and the testimony of Morgan. Any new trial would also include vigorous cross-examination of Morgan as a named defendant in the case. This ground for a new trial is rejected.

E. JMOL Damages

Defendants' contend Plaintiff's expert, Donald A. Gorowsky, used a fatally flawed methodology to calculate the damages of infringement. In a pretrial order, the Court has addressed Gorowsky's methodology, and found Gorowsky used methodologies approved by the Federal Circuit. Global Traffic, 946 F. Supp. 2d at 910-13. The Court held, to the extent Defendants disagreed with the expert's conclusions, Defendants could challenge them at trial. Id. At trial Defendants thoroughly cross-examined Gorowsky. Defendants also presented competing evidence and theories, arguing that there were viable competitors sufficient to justify rejecting Gorowsky's two-supplier market theory. This argument may have been accepted by the jury's decision to ameliorate Plaintiff's requested damages. Gorowsky estimated total damages of \$7.1 million, but the jury nevertheless returned a damages calculation of approximately \$5 million. The lower verdict implies the jury weighed the evidence and believed GTT proved its case by a greater weight of the evidence on some, but not all of Gorowsky's conclusions and the other evidence presented by GTT. The Court "will not engage in a weighing

or evaluation of the evidence, as these are jury functions.” Warren v. Prejean, 301 F.3d 893, 903 (8th Cir. 2002). The evidence presented at trial supports a jury finding on damages. See, e.g., Trial Tr. 481, 519, 639, 689, 719, 880, 946-53.

Defendants also argue the Court created prejudicial error by permitting Gorowsky to offer a “rebuttal opinion” using a report from Defendants’ damages expert, Dr. Kenneth Serwin, that was never offered at trial. The only testimony that was elicited from Gorowsky about Defendants’ unoffered expert report concerned methodology. Gorowsky testified that Serwin’s report showed the use of the same methodology Gorowsky used, but came to different conclusions about the amount of damages. Trial Tr. 1666-68. GTT offered this testimony to rebut Defendants’ attempts to undermine Gorowsky’s methodology. The admission of this limited rebuttal opinion was not error. See id. 1670-71.

F. Jury Instructions

Defendants object to Jury Instruction No. 35 regarding the notice and marking requirements of 35 U.S.C. § 287(a). See Final Jury Instr. [Docket No. 311].

“The trial court has a great deal of discretion in framing the jury instructions and the court need not give the exact language desired by the parties.” Ryther, 108 F.3d at 847. Instructions do not have to be “technically perfect or even a model of clarity.” Gill, 546 F.3d at 563. Rather, the relevant question is “whether the instructions, taken as a whole and viewed in light of the evidence and applicable law, fairly and adequately submitted the issues in the case to the jury.” Shaw, 516 F.3d at 1068-69; accord Chiron Corp. v. Genentech, Inc., 363 F.3d 1247, 1259 (Fed. Cir. 2004).

The issue of marking was fairly and adequately submitted to the jury. The instruction stated, “‘Marking’ means that substantially all of the products, or if reasonable under the circumstances, the packaging of the products, made, offered for sale, or sold under the ’398 patent are marked” This language reflects the state of the law. The law states:

Patentees, and persons making, offering for sale, or selling within the United States any patented article for or under them, or importing any patented article into the United States, may give notice to the public that the same is patented, either by fixing thereon the word “patent” or the abbreviation “pat.,” together with the number of the patent, or by fixing thereon the word “patent” or the abbreviation “pat.” together with an address of a posting on the Internet, accessible to the public without charge for accessing the address, that associates the patented article with the number of the patent, or when, from the character of the article, this can not be done, by fixing to it, or to the package wherein one or more of them is contained, a label containing a like notice. In the event of failure so to mark, no damages shall be recovered by the patentee in any action for infringement, except on proof that the infringer was notified of the infringement and continued to infringe thereafter, in which event damages may be recovered only for infringement occurring after such notice. Filing of an action for infringement shall constitute such notice.

35 U.S.C. § 287(a). Numerous courts, including the United States Supreme Court, have “focused on whether the method of marking the patented product provided notice, rather than on the precise mechanistic compliance with the statute.” Heraeus Electro-Nite Co. v. Midwest Instr. Co., Civil No. 06-355, 2007 WL 3407128, at *3-4 (E.D. Pa. Nov. 14, 2007) (collecting cases); see Sessions v. Romadka, 145 U.S. 29, 50 (1892) (“It is not altogether clear that the stamp could not have been made upon the smaller sizes, but, in a doubtful case, something must be left to the judgment of the patentee”); Chicago Pneumatic Tool Co. v. Hughes Tool Co., 192 F.2d 620, 626 (10th Cir. 1951) (marking sufficient where containers of drill bit for deep wells marked).

At trial, GTT witnesses testified that GTT marks the packaging of its Opticom GPS product. Trial Tr. 856-57; see also Pl.’s Tr. Exs. 41, 43, 45, 47,51. GTT’s witness, the chief

operating officer, testified that GTT's marking was consistent and continuous since 2004, a holdover from how GTT's predecessor, 3M, marked its products. Trial Tr. 849, 855, 858. Furthermore, GTT testified that it marked the packaging and the operations manuals because the product was a system wherein the components were scattered in different places and often out of the view of the public. Id. 853-54, 856-57 (Opticom products are installed in a vehicle's trunk and/or in a locked equipment cabinet, and/or on the traffic signal mast above the street); see also Pl.'s Trial Exs. 52-58, 60, 61, 65 (manuals).

Because the purpose of the statute is to provide notice to the public, "[n]umerous courts have found that placing patent numbers on a product's packaging complies with the Marking Statute even in situations where it was plainly possible to have physically placed the patent number on the product itself." Heraeus, 2007 WL 3407128, at *4. For example, marking the packaging may be sufficient when "marking the article itself would not provide sufficient notice to the public," Ethicon Endo-Surgery, Inc. v. Hologic, Inc., 689 F. Supp. 2d 929, 945 (S.D. Ohio 2010), when "conditions of use" make marking the packaging reasonable, or when marking the packaging is the "custom of this industry," Heraeus, 2007 WL 3407128, at *4. Instruction No. 35 reflects the reasonable approach taken by the courts in judging notice and marking. Therefore, Instruction No. 35 "fairly and adequately submitted the issues in the case to the jury." Shaw, 516 F.3d at 1068.

Defendants also believe the Court erred by not giving Defendants' Proposed Jury Instructions No. 4 (Means Plus Function Requirements/Step Plus Function Requirements), No. 5

(Method Claim–Order of Performance of Steps)³ and No. 8 (Claim Interpretation/Person of Ordinary Skill in the Art). Defendants modified Federal Circuit Bar Association Model Patent Jury Instructions with language from cases they believed would enhance the jury’s understanding of the applicable law. To the extent Defendants properly objected to the Court’s instructions on the record, the Court addressed the objections and found that its Instructions conveyed to the jury the applicable law, fairly and adequately. See, e.g., Final Jury Instruction Nos. 17, 20, and 21.

G. JMOL Infringement Defenses

Defendants seem to confuse JMOL and objections to jury instructions. Defendants submit that the Court should have granted Defendants motions for JMOL regarding (1) the conception date issue, including the Court’s refusal to give Defendants’ proposed jury instruction regarding GTT’s lack of independent corroboration of its claimed 1992 invention date; (2) the prior art issue under 35 U.S.C. § 102(a); and (3) the 35 U.S.C. § 102(g) issues, including the Court’s refusal to read the jury Defendants’ proposed instruction regarding multiple inventors. None of the jury instruction objections, to the extent they were properly made, warrant a new trial. And, the jury had ample evidence to find Defendants’ prior art evidence did not anticipate the ’398 Patent and that a prior invention did not precede the ’398 Patent invention.

³ Defendants’ objection to the Court’s failure to give Defendants’ Proposed Jury Instructions Nos. 4 and 5 are covered more fully below.

1. Conception Date

The instructions given to the jury regarding the date of invention used the exact language of the current Federal Circuit Bar Model Instructions, which includes language about corroboration:

But, there must be some evidence beyond the inventor's own testimony that confirms the date on which the inventor had the complete idea.

See Federal Circuit Bar Model Instruction 4.3(a). "In assessing corroboration of oral testimony, courts apply a rule of reason analysis; [u]nder a rule of reason analysis, an evaluation of all pertinent evidence must be made so that a sound determination of the credibility of the inventor's story may be reached." Mahurkar v. C.R. Bard, Inc., 79 F.3d 1572, 1577 (Fed. Cir. 1996) (internal citations and quotations omitted). GTT presented testimony of its inventors, the inventors' notebooks, and a supervisor's signature on the notebooks. The jury instruction appropriately reflects the requirement of corroboration and a reasonable jury could have believed that this evidence was reliable, accurate, and favorable to GTT.

2. Anticipation by Publication

Defendants offered the Gerland/Bradfield papers as prior art that anticipated the '398 Patent. At trial GTT offered several reasons why these papers did not anticipate the invention. As an example, GTT's expert Dr. Neuhauser testified that the Gerland/Bradfield papers do not disclose a number of limitations found in the asserted claims of the '398 Patent, including "maps of allowed approaches." Trial Tr. 392-96. The jury could reasonably find this expert testimony more credible than Defendants' expert. For this reason alone, Defendants are not entitled to JMOL with regard to anticipation.

3. Prior Invention

Defendants fault the Court for failing to give the jury their “multiple inventors” instruction. See Defs.’ Proposed Jury Instruction No. 27. However, Defendants do not complain that the prior invention instruction, Final Jury Instruction No. 30, included an incorrect statement of the law. And nothing in the instruction prevented Defendants from making their arguments about multiple inventors to the jury. Thus, the instruction adequately stated the law and Defendants were not entitled to the specific language they requested. Ryther, 108 F.3d at 847.

H. Morgan’s Personal Liability

Morgan is liable for inducement if (1) he knew of the patent, (2) intended to cause directly infringing acts, such as a city’s use of the Emtrac GPS System, and (3) had specific intent or “knowledge that the induced acts constitute patent infringement.” See Global-Tech Appliances, Inc. v. SEB S.A., 131 S. Ct. 2060, 2068, 2071 (2011). The evidence at trial showed Morgan knew about the ’398 Patent in 2004, knew it related to GPS, and knew it related to traffic preemption. Trial Tr. 608-09, 655-56. Morgan intended cities to use the Emtrac GPS System. Morgan “get[s] his] hands dirty everyday installing, testing, repairing” the Emtrac GPS System. Pl.’s Trial Ex. 77. Morgan testified that he “help[s] cities use the Emtrac GPS product.” Trial Tr. 633.

Defendants argue GTT failed to introduce or offer evidence that Morgan specifically intended to cause infringement. Defendants contend that the only evidence on record is that Morgan knew of the ’398 Patent but did not specifically review its language; therefore, since he did not read the ’398 Patent, he could not have developed specific intent to infringe.

Willfulness, and willful blindness, is discussed further below, but, in this context “specific intent may be inferred from circumstantial evidence.” Ricoh Co., Ltd. v. Quanta Computer Inc., 550 F.3d 1325, 1342 (Fed. Cir. 2008). The Supreme Court has stated that the doctrine of willful blindness has two basic requirements: (1) the defendant must subjectively believe that there is a high probability that a fact exists and (2) the defendant must take deliberate actions to avoid learning of that fact. Global-Tech, 131 S. Ct. at 2071 (finding it hard to fathom under the circumstances of that case, how defendant could have ignored the patent “other than to manufacture a claim of plausible deniability in the event [defendant] was later accused of patent infringement.”). Morgan was himself an owner of patents. Given his knowledge that a patent existed related to GPS traffic preemption, Morgan’s refusal to look at the patent or to consult his company’s counsel about the patent lacks credibility. GTT offered evidence and made precisely this argument at trial. The jury could have reasonably concluded Morgan believed there was a high probability that the patent would cover his Emtrac product if he examined it and that he deliberately avoided learning facts that would inform that risk.

Alternatively, the jury may not have found credible Morgan’s ignorance of the ’398 Patent. Morgan professed a knowledge of patent law and he claimed intimate involvement with the design, production, and sale of traffic preemption systems. A reasonable jury could have concluded Morgan read the Patent but nevertheless chose to infringe.

For these reasons, Morgan is not entitled to a JMOL on personal liability.

I. Claim 16 Indefiniteness

Defendants' indefiniteness argument is based on their assertion that Claim 16 of the '398 Patent contains a step-plus-function limitation. Defendants then argue that under step-plus-function requirements, Claim 16 is invalid for indefiniteness.

Yet again, Defendants essentially ask the Court to reopen claim construction for Claim 16. As discussed above, this attempt to reopen claim construction is extremely tardy. The Court sees no reason to reopen claim construction, as the claims are entitled to their plain and ordinary meaning.

Claim 16 does not include a step-plus-function limitation and the term "allowing" for Claim 16(g) is not indefinite.⁴ The parties agree that indefiniteness is an issue properly decided by the Court because it is a "legal conclusion that is drawn from the court's performance of its duty as the construer of patent claims." Atmel Corp. v. Information Storage Devices, 198 F.3d 1374, 1378 (Fed. Cir. 1999). Defendants argue Claim 16 is a step-plus-function claim simply because it uses the phrase "comprising the steps of."

Step-plus-function claims are a rarity in patent law, with "[o]nly a few cases hav[ing] found the existence of a step-plus-function claim element." Seal-Flex, Inc. v. Athletic Track & Court Const., 172 F.3d 836, 850 n.5 (Fed. Cir. 1999) (Rader, J., concurring). Step-plus-function claims typically use the phrase "steps for." See Masco Corp. v. United States, 303 F.3d 1316, 1327 (Fed. Cir. 2002) (finding no step-plus-function claim where the claims used "steps of"

⁴ Relatedly, Defendants argue that Claim 16's step-plus-function format required the Court give Defendants' Proposed Jury Instructions Nos. 4 and 5. Since claim construction for Claim 16 is impermissibly tardy, and since Claim 16 is not a step-plus-function claim, Defendants were not entitled to these jury instructions.

instead of “steps for”; the “step for” language “signals the drafter’s intent to invoke [35 U.S.C.] § 112, paragraph 6”). The Court in Masco explained that even where the drafter employs “steps for” language, paragraph 6 of § 112 is implicated “only when steps plus function without acts are present.” Id. (citing Seal-Flex, 172 F.3d at 849-50); see also Epcon Gas Sys. Inc. v. Bauer Compressors, Inc., 279 F.3d 1022, 1028 (Fed. Cir. 2002).

In this case, Claim 16 is not in step-plus-function form. The language of Claim 16 does not employ the “steps for” format.⁵ In addition, the language of Claim 16 clearly includes acts. Claim 16(a) refers to the act of “receiving”, 16(b) recites the act of “processing.” Claim 16(c), (d), (e), and (f) respectively refer to the acts of “transmitting,” “providing,” “comparing,” and “determining.” Finally, 16(g), which is the only specific limitation Defendants focus on, refers to the act of “allowing the vehicle to preempt the traffic signals associated with the intersection if the vehicle is within one of the allowed approaches.” See Masco, 303 F.3d at 1327 (concluding that it will not “constrain the scope of coverage of a claim limitation without a showing that the limitation contains nothing that can be construed as an act”).

Even if Claim 16 were in step-plus-function form, under established Federal Circuit law, the standard for indefiniteness “does not compel absolute clarity.” Datamize, LLC v. Plumtree Software, Inc., 417 F.3d 1342, 1347 (Fed. Cir. 2005). Accordingly, to prove indefiniteness, Defendants must show “by clear and convincing evidence that a skilled artisan could not discern the boundaries of the claim based on the claim language, the specification, and the prosecution

⁵ Defendants also make an argument that if the Court finds that Claim 16 is in a steps-plus-function form, or even if it is a method claim, then the steps need to be performed in the order they are written. But the presumption, unrebutted by Defendants, is that the steps of a method claim do not need to be performed in any particular order. See, e.g., Baldwin Graphic Sys. v. Siebert, Inc., 512 F.3d 1338, 1345 (Fed Cir. 2008).

history, as well as her knowledge of the relevant art area.” Halliburton Energy Serv. v. M-I LLC, 514 F.3d 1244, 1249-50 (Fed. Cir. 2008). Moreover, “claims are not indefinite merely because they present a difficult task of claim construction.” Id. at 1249. Rather, “[i]f 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,” then the claim is “sufficiently clear to avoid invalidity on indefiniteness grounds.” Id.

In this case, Defendants cannot meet the clear and convincing evidence standard. GTT’s expert Dr. Neuhauser walked through each part of Claim 16, explaining how a person skilled in the art at the time of the invention would understand the language. Trial Tr. 475-76. In particular, he testified that “allowing” is understood as the act of “releasing the request, allowing the request to issue.” Id. This testimony reflects the plain and ordinary meaning of the claim, so Defendants would not be entitled to a ruling of indefiniteness, even if this issue had been properly raised.

J. Issues Reserved for Court Determination

The issues of laches and equitable estoppel were not submitted to the jury, as these issues are “committed to the sound discretion of the trial judge.” A.C. Aukerman Co. v. R.L. Chaides Constr. Co., 960 F.2d 1020, 1028 (Fed. Cir. 1992). The Court reserved its decision on these issues after hearing the full trial testimony and receiving supplemental post-trial briefing. Trial Tr. 1660-63.

1. Laches

Laches is “an equitable defense to a claim for patent infringement.” Aukerman, 960 F.2d at 1028. “In a legal context, laches may be defined as: (1) the neglect or delay in bringing suit to

remedy an alleged wrong, (2) which taken together with lapse of time and other circumstances, causes prejudice to the adverse party and operates as an equitable bar.” Id. at 1028-29. The Court weighs “the length of delay, the seriousness of prejudice, the reasonableness of excuses, and the defendant’s conduct or culpability.” Id. at 1034. “The period of delay is measured from the time the plaintiff knew or reasonably should have known of the defendant’s alleged infringing activities to the date of suit.” Id. at 1032. The prejudice against the defendant is measured as evidentiary or economic:

Evidentiary, or “defense” prejudice, may arise by reason of a defendant’s inability to present a full and fair defense on the merits due to the loss of records, the death of a witness, or the unreliability of memories of long past events, thereby undermining the court’s ability to judge the facts. Economic prejudice may arise where a defendant and possibly others will suffer the loss of monetary investments or incur damages which likely would have been prevented by earlier suit.

Wanlass v. GE, 148 F.3d 1334, 1337 (Fed. Cir. 1998). “A delay of more than six years raises a presumption that it is unreasonable, inexcusable, and prejudicial.” Id. If laches is established, damages prior to suit may be barred. Id. at 1028.

Seeking summary judgment, Defendants argued the laches “clock” started ticking when GTT learned that GPS was used to enhance an Emtrac System in 2004 or 2005. Global Traffic Tech., 946 F. Supp. 2d at 902. GTT responded that the clock only started to run sometime after 2007, when Defendants began selling the Emtrac GPS System accused of infringement. Id. GTT argues that earlier Emtrac systems, even the ones that used a GPS compass, did not infringe the ’398 Patent. Id. In denying summary judgment, the Court held that these arguments represented genuine issues of material fact that would need to be developed at trial, but if the clock did not start until 2007 “three years is not an unreasonable time in which to consider whether or not to bring suit.” Id.

At trial, through Morgan's testimony, the evidence developed that the "second generation Emtrac GPS product accused of infringement" was launched in 2007. Trial Tr. 588. From 2004 through 2006, Defendants did not sell second generation units. Id. at 578-80, 585. Although Defendants showed that GTT was concerned about Emtrac's development of a GPS traffic priority system in 2004-2006, there was no clear act of infringement during that time to justify starting the laches clock. Defs.' Trial Exs. 27, 28, 31, and 32. A party may be charged with constructive knowledge of another's infringement in certain circumstances, including where the infringer's activities are "pervasive, open, and notorious" such that "a reasonable patentee would suspect they were infringing." Wanlass, 148 F.3d at 1338. Defendants have not shown that their incorporation of GPS into their Emtrac GPS System was pervasive, much less open and notorious. Simply "dabbling whether to get back into this market" as Morgan described his conduct, Trial Tr. 587-88, is not sufficient to place GTT on notice.

STC argues that even if KME is not entitled to laches, GTT unreasonably delayed bringing suit against STC until December 2011. GTT's explanation for its delay at trial was that in September 2010, GTT did not understand STC's deep involvement with Morgan, KME, and the infringing Emtrac GPS System. Instead, GTT thought that STC was "a contract manufacturer." Id. at 745. Through the discovery process in the lawsuit against KME and Morgan, GTT learned, as Brad Cross confirmed at trial, that STC's involvement was deeper than GTT initially thought. STC, KME, and Morgan are a "joint venture" with respect to selling the Emtrac GPS System, id. at 1425, and STC also writes the source code, id. at 1426, provides technical support to customers id. at 1426-28, and drafts the product manuals, id. at 1437. Once GTT learned of this relationship, it filed suit against STC.

Defendants also cannot satisfy the prejudice prong of their laches defense. Defendants have not argued that they suffered evidentiary prejudice. To prove economic prejudice, Defendants must show a change in economic position that occurred “because of and as a result of” delay by GTT bringing suit, “not simply a business decision to capitalize on a market opportunity.” Gasser Chair Co., Inc. v. Infanti Chair Mfg. Corp., 60 F.3d 770, 774 (Fed. Cir. 1995). There was evidence at trial that Defendants’ radio signal traffic preemption system was no longer selling after 2004. Trial Tr. 587. Morgan “looked up on the Internet what 3M [GTT’s predecessor] had going on at the time.” Id. at 655. He then “talked to Brad [Cross] about the equipment” and they “knocked it over a little bit and decided, yeah, we’d give it a shot and see if we could revive the Emtrac system, you might say.” Id. at 655-56. Defendants argue that if GTT had caught them infringing sooner, then Defendants may not have invested further resources into the project. But, Morgan has testified that he knew about the ’398 Patent in 2004. Id. at 608-09, 655-56. He just refused to look at it. Instead, Morgan looked at a 3M manual and tried to design with Brad Cross a device that was different enough from the product in the 3M manual that they hoped they would not be infringing. Defendants made a business decision to launch KME in 2007 and begin selling the Emtrac GPS System despite knowing there was a patent covering GPS traffic priority systems. Defendants cannot now claim prejudice for GTT’s alleged delay, when Defendants did not do a thorough investigation of the legal risks they could be exposing themselves to when they launched their product. Defendants have not shown prejudice due to a delay in suit.

2. Equitable Estoppel

“Three elements must be established to bar a patentee’s suit by reason of equitable estoppel: (a) the patentee, through misleading conduct, leads the alleged infringer to reasonably infer that the patentee does not intend to enforce its patent against the alleged infringer. . . . ; (b) the alleged infringer relies on that conduct; and (c) due to its reliance, the alleged infringer will be materially prejudiced if the patentee is allowed to proceed with its claim.” Aukerman, 960 F.2d at 1028.

A patentee’s “silence alone will not create an estoppel,” id. at 1043-44, because “[n]o principle is better settled than that a party is not estopped by his silence unless it has misled another to his hurt,” Philadelphia, W. & B.R. Co. v. Dubois, 79 U.S. 47, 64 (1870). Rather, for “a patentee’s ‘misleading conduct’ [to be] essentially misleading inaction,” the “plaintiff’s inaction must be combined with other facts respecting the relationship or contacts between the parties to give rise to the necessary inference that the claim against the defendant is abandoned.” Aukerman, 960 F.2d at 1042.

Defendants argue that in 2009, GTT and Morgan met to discuss their competing products. Morgan claims GTT “suggested several times that GTT should resell his product rather than [GTT’s] own.” Trial Tr. 730. Defendants further argue Morgan was led to believe GTT would not sue him for infringement. GTT has its own version of the 2009 meeting with Morgan. Given the jury’s consistent finding of infringement and its finding of willful infringement (discussed further below), the Court does not fully accept Defendants’ version of this 2009 discussion. However, even if Morgan’s version of the 2009 meetings could be believed, the equitable estoppel argument still fails because GTT’s conduct was not

“misleading.” See Altech Controls Corp. v. EIL Instr., Inc., 8 Fed. Appx. 941, 946 (Fed. Cir. 2001) (“district court abused its discretion in finding estoppel” based on meeting between parties in which a “possible merger” was discussed). To prevail, Defendants must prove GTT “abandoned” an infringement claim against Defendants through misleading conduct. Aukerman, 960 F.2d at 1042. But a plaintiff’s “willingness to engage in licensing negotiations with [defendant] cannot be the basis of misleading conduct.” Vectra Fitness v. Icon Health & Fitness, 288 F. Supp. 2d 1155, 1166 (W.D. Wash. 2003). Furthermore, even if GTT “attempt[ed] to negotiate licenses” for the ’398 Patent “followed by a period of silence,” that would not constitute “the necessary misleading conduct.” Meyers v. Asics Corp., 974 F.2d 1304, 1308 (Fed. Cir. 1992). Defendants have not proven that its license negotiation with GTT was misleading under this standard. Therefore, Defendants are not entitled to equitable estoppel.

K. Willful Infringement

The Federal Circuit has established a two-part test for determining willful infringement. The plaintiff must first show that “the infringer acted despite an objectively high likelihood that its actions constituted infringement of a valid patent.” In re Seagate, 497 F.3d 1360, 1371 (Fed. Cir. 2007) (en banc). Willful infringement “requires at least a showing of objective recklessness.” Id. The plaintiff then must show that the “objectively-defined risk” was “either known or so obvious that it should have been known to the accused infringer” (the subjective prong). Id.

While the first part of the willfulness test—the objective prong—often involves “mixed questions of law and fact,” the Federal Circuit holds that it is ultimately a question of law subject to de novo review that “is best decided by the judge.” Bard Peripheral Vascular, Inc. v. W.L.

Gore & Associates, Inc., 682 F.3d 1003, 1005-06 (Fed. Cir. 2012) (en banc). In determining the objective prong, however, the Federal Circuit holds that the Court may rely on underlying findings of fact by the jury. Indeed, because the objective prong “tends not to be met where an accused infringer relies on a reasonable defense to a charge of infringement,” the question “often posed is whether a defense or noninfringement theory was ‘reasonable.’” Id. at 1005-06. A court may therefore “allow the jury to determine the underlying facts relevant to the defense in the first instance, for example, the questions of anticipation or obviousness.” Id. at 1008. But “the ultimate legal question of whether a reasonable person would have considered there to be a high likelihood of infringement of a valid patent should always be decided as a matter of law by the judge.” Id. Accordingly, at the end of the day, “the court should determine, ‘based on the record ultimately made in the infringement proceedings,’ whether a ‘reasonable litigant could realistically expect’ [the asserted defenses] to succeed.” Id. (citation omitted).

In this case, Morgan’s trial testimony is dispositive. Morgan, himself a holder of patents, testified that he became aware of the ’398 Patent around 2004. Trial Tr. 608-09, 655-56. He discussed the fact of the Patent’s existence with Brad Cross. Morgan also testified that he refused to review the Patent because he did not want to risk infringement. However, he did study 3M’s product manual. Cross and Morgan testified they then attempted to design a product that was different than the 3M/GTT GPS system. In 2007, Defendants began selling the accused GPS system.

No reasonable litigant, and certainly not a savvy businessman such as Morgan, could expect to avoid infringement by simply refusing to look at a patent, and then by designing around the patent holder’s embodiment of its patent. Plaintiff’s product is not the same as

Plaintiff's patent. See Atlantic Thermoplastics Co., Inc. v. Faytex Corp., 970 F.2d 834, 846 (Fed. Cir. 1992). The Court finds that an objectively reasonable person, with knowledge that a patent exists in the field in which the potential infringers wish to compete, would not ignore the patent, but would investigate whether its design would infringe.⁶

The second part of the test is "subjective," and the jury can aid the Court in determining the underlying facts as to Defendants' subjective intent. The jury found, from Defendants' testimony and the evidence, that GTT proved by clear and convincing evidence the second part of the test. GTT persuaded the jury that Defendants "actually knew or should have known that their actions constituted an unjustifiably high risk of infringement of a valid and enforceable patent." Final Jury Instruction No. 24; Special Verdict Form [Docket No. 326] IV. The evidence of record supports this conclusion. The Court relies on the jury's verdict in finding Defendants' infringement was willful.

L. Enhancement of Damages

Under 35 U.S.C. § 284, "the court may increase the damages up to three times the amount found or assessed" by the jury. An award of enhanced damages is appropriate when (1) the fact-finder determines that the infringer engaged in culpable conduct (i.e., willful infringement); and (2) the Court exercises its discretion to determine whether and to what extent to enhance damages. Jurgens v. CBK, Ltd., 80 F.3d 1566, 1570 (Fed. Cir. 1996). "An act of

⁶ Even when a defendant has willfully ignored a patent, it is still possible that a defendant could create a product which did not infringe, or that the ignored patent was invalid. Defendants might have fortunately been successful in designing around GTT's embodiment instead of the patent. Or, Defendants might have been forgiven their inattention to the patent if the patent was invalid as anticipated or obvious. When a jury or the Court finds a patent claim is invalid the question of willfulness is largely moot. See, e.g., Krippelz v. Ford Motor Co., 667 F.3d 1261, 1269-1270 (Fed. Cir. 2012).

willful infringement satisfies [the] culpability requirement and is, without doubt, sufficient to meet the first requirement to increase a compensatory damages award.” Id.

With respect to the second requirement, the Federal Circuit in Read Corp. v. Portec, Inc., 970 F.2d 816, 826 (Fed. Cir. 1992) set forth multiple factors to guide courts in determining whether to enhance damages. “The paramount determination . . . is the egregiousness of the defendant’s conduct based on all the facts and circumstances.” Id. at 826. The Read factors include (1) “whether the infringer deliberately copied the ideas or design of another;” (2) “whether the infringer, when he knew of the other’s patent protection, investigated the scope of the patent and formed a good-faith belief that it was invalid or that it was not infringed;” (3) “the infringer’s behavior as a party to the litigation;” (4) “defendant’s size and financial condition;” (5) “the closeness of the case;” (6) “the duration of defendant’s misconduct;” (7) “remedial action by the defendant;” (8) “defendant’s motivation for harm;” and (9) “whether defendant attempted to conceal its misconduct.” Id. at 827.

GTT’s request that the Court triple the damages award is denied.

1. Deliberate Copying

Defendants clearly had knowledge of the ’398 Patent in 2004. Defendants claim they did not look at the ’398 Patent, but rather looked at product manuals and attempted to design a system different from GTT’s embodiment, presumably so as not to infringe. The Court and jury found that Defendants unreasonably, recklessly, and likely intentionally failed to read the ’398 Patent. Defendants chose to risk ignoring the ’398 Patent, but there is little evidence that Defendants took the ’398 Patent and deliberately copied it. Some evidence suggests Defendants

were trying to build something new, but their conduct was reckless and willfully blind.

Therefore, this factor weighs in favor of enhancing damages.

2. Good-Faith Belief of Invalidity

Defendants could not have had a good-faith belief in the invalidity of the '398 Patent at the time that they became aware of it in 2004 because they claim that they did not read the Patent. Therefore, this factor weighs in favor of GTT.

3. Behavior as Litigant

Even though Defendants could not have had a good-faith belief in the invalidity of the '398 Patent at the time that they became aware of it in 2004, as litigants they were entitled to attempt to and prove that they either did not infringe or that '398 Patent is invalid. Defendants argued vigorously through claim construction for a narrow reading of the patent. This view was not so unreasonable that it was asserted in bad faith. Similarly, Defendants' anticipation and obviousness defenses were honestly presented. The jury ultimately found the '398 Patent valid, but that does not make preserving their defenses bad faith litigation. That said, Defendants did create frustrating confusion with repeated attempts, some of dubious value and merit, to slip new claim construction analysis into arguments long after it was clear how the Court had construed the terms. This factor weighs in GTT's favor.

4. Defendants' Size and Financial Condition

GTT contends Defendants are a major player in the market for GPS Traffic Systems and Defendants have made millions of dollars in this market. Even so, Defendants will likely not be a major player in this market following this litigation. STC and KME have represented to the Court that they will have to conduct layoffs and possibly declare bankruptcy following entry of

judgment.⁷ That said, January 7, 2014, marked the end of the '398 Patent's protection of GTT's invention. STC and Morgan will not be excluded from the market going forward, to the extent that they can find funding to restart production. Therefore this factor weighs neutrally.

5. Closeness of the Case

GTT asserts Defendants knew of the patent in 2004, sold the infringing Emtrac GPS System starting in 2007, and Defendants continued to sell the infringing system after being sued for infringement. As mentioned above, Defendants had good-faith invalidity defenses once litigation began; therefore, the Court finds that this factor does not weigh in favor of enhancing damages.

6. Duration of Defendant's Misconduct

The duration of the infringement was long, but the jury's damage award reflects the period of infringement. As mentioned before, Defendants were entitled to make invalidity defenses and contest claim construction. Clearly, willfully ignoring a patent is misconduct, but enhancement of damages on this basis would be double or triple punishing Defendants. There is no additional misconduct to which the Court can point to justify enhancing damages.

7. Remedial Action by Defendants

GTT contends Defendants never took remedial action to cease infringement and never attempted to implement any design around the '398 Patent. Defendants explain that there is no evidence of remedial action because Defendants reasonably believed that the patent was invalid.

⁷ Defendants did not supply any direct evidence to this effect, but did submit declarations under oath [Docket Nos. 349 and 350].

The jury rejected Defendants' assertion that the patent was invalid, but the defense was not so unreasonable as to enhance damages on that basis.

8. Defendants' Motivation for Harm

GTT contends Defendants specifically targeted GTT and sought "total supremacy over" GTT in the market. But GTT also claims that it was the only competitor in a two-supplier market. Therefore, since GTT was Defendants' only competition, it is unsurprising that the two companies would have competed vigorously. There is no evidence of any special maneuvering that would indicate competition beyond that expected between two competitors in a narrow niche market; therefore, this factor weighs against enhancing damages.

9. Defendants' Attempts to Conceal

GTT asserts that Defendants sought to conceal its infringing activity by insisting that the '398 Patent was invalid. Defendants contend that there is no evidence that they attempted to conceal their acts. The Court agrees. Defendants openly sold its Emtrac System starting in 2007. Therefore, this factor weighs against enhancing damages.

After reviewing the totality of the circumstances and weighing the Read factors, the Court concludes that an award of enhanced damages is warranted. Given that some significant factors weigh in favor of enhancing damages, the Court awards half the compensatory damage amount, \$2,526,059, as an appropriate enhancement of damages.

M. Prejudgment Interest

The Supreme Court has explained that "prejudgment interest should ordinarily be awarded where necessary to afford the plaintiff full compensation for the infringement." Gen. Motors Corp. v. Devex Corp., 461 U.S. 648, 654 (1983). Prejudgment interest is not a penalty

but “serves to make the patent owner whole, for damages properly include the foregone use of money of which the patentee was wrongly deprived.” Sensonics, Inc. v. Aerosonic Corp., 81 F.3d 1566, 1574 (Fed. Cir. 1996). Accordingly, awarding “prejudgment interest is the rule, not the exception.” Id.

The Federal Circuit affords district courts “wide latitude in the selection of interest rates.” Uniroyal, Inc. v. Rudkin-Wiley Corp., 939 F.2d 1540, 1545 (Fed. Cir. 1991). A variety of rates have been utilized by courts in patent cases, including statutory rates set by state statutes, the U.S. Treasury bill rate, the prime rate, the prime rate plus a percentage, and a rate on borrowed funds. See, e.g., 7-20 D. Chisum, Chisum on Patents, § 20.03 (citing cases that gather examples of different rates used by courts). In addition, “the determination whether to award simple or compound interest similarly is a matter largely within the discretion of the district court.” Gyromat Corp. v. Champion Spark Plug Co., 735 F.2d 549, 557 (Fed. Cir. 1984).

Prejudgment interest shall be awarded at a simple rate of 10% per annum not compounded on the \$ 5,052,118 award. See Minn. Stat. § 549.09. As 35 U.S.C. § 284 does not specify a rate to be used for prejudgment interest, courts often use the statutory interest rate of the state in which they sit. See Bowling v. Hasbro, Inc., 582 F. Supp. 2d 192, 208 (D.R.I. 2008) (awarding the Rhode Island state rate of 12%). In Minnesota, this rate is 10% per annum. Minn. Stat. § 549.09. Even though the damages period began in 2007, the jury did not award GTT’s full request for damages. Therefore, prejudgment interest will run from 2010, assuming that the jury discounted early infringement cases that it did not believe warranted recovery.⁸ At 10% per

⁸ In response to GTT’s recommendation of the Minnesota state statutory rate of 10%, see Minn. Stat. § 549.09, Defendants suggest using the 52-week United States Treasury bill rate or the prime interest rate (estimated by Defendants’ damages expert at 3.25%), compounded

annum from January 1, 2010, through October 31, 2013, the prejudgment interest is \$923,965. Daily interest is \$1,384.14 for each day after October 31, 2013.

IV. CONCLUSION

Based upon the foregoing, and all the files, records, and proceedings herein, **IT IS HEREBY ORDERED** that:

1. Defendants Rodney K. Morgan, STC, Inc., and KM Enterprises, Inc.'s Motions for Judgment as a Matter of Law or New Trial [Docket Nos. 411, 369, 372, 375, 378, 381] are **DENIED**;
2. Defendants' Motion for Laches and Equitable Estoppel [Docket No. 395] is **DENIED**;
3. Defendants' Motion for an Amended ruling on Claim 16 Indefiniteness [Docket No. 401] is **DENIED**;
4. Plaintiff Global Traffic Technologies, LLC's Motion for Confirmation of Willful Infringement, Enhancement of Damages, and Prejudgment Interest [Docket No. 364] is **GRANTED IN PART**, and **DENIED IN PART**;
5. Enhancement of Damages is awarded in the amount of \$2,526,059; and,

annually. Defendants' expert did not even calculate the amount for the 52-week Treasury bill rate and that low rate does not serve to make the patent owner whole. The prime interest rate is also extremely low and does not serve to make the plaintiff whole.

6. Prejudgment Interest is \$923,965, plus \$1,384.14 for each day after October 31, 2013.

LET JUDGMENT BE ENTERED ACCORDINGLY.

BY THE COURT:

 s/Ann D. Montgomery
ANN D. MONTGOMERY
U.S. DISTRICT JUDGE

Dated: April 25, 2014.