

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

HONEYWELL INTERNATIONAL INC.)	
and HONEYWELL INTELLECTUAL)	
PROPERTIES INC.,)	
Plaintiffs.)	
)	
v.)	C. A. No. 03-242-MPT
)	
UNIVERSAL AVIONICS SYSTEMS CORP.))	
and SANDEL AVIONICS, INC.,)	
Defendants.)	

MEMORANDUM ORDER

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Wilmington, Delaware
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Thyng, U.S. Magistrate Judge

This is a patent infringement case. Pending before the court is Sandel Avionics Inc.'s ("Sandel") Motion *In Limine* seeking to preclude plaintiffs Honeywell International Inc. and Honeywell Intellectual Properties Inc. (collectively "Honeywell") from introducing expert testimony regarding alleged infringement under the doctrine of equivalents. Sandel's motion was submitted on November 30, 2004 in response to this court's November 30, 2004 Memorandum Order (D.I. 144) granting a similar motion *in limine* filed by Sandel's co-defendant Universal Avionics Systems Corp. ("Universal"). In light of the arguments of Universal and Honeywell with regard to Universal's motion *in limine*, and the courts reasons for granting that motion, Sandel argues that Honeywell's technical expert, Dr. John Hansman, Jr. "should likewise be barred from providing doctrine of equivalents testimony with respect to Sandel because his testimony regarding Sandel's infringement under the doctrine of equivalents was just as conclusory . . . with respect to co-defendant Universal."¹ The relevant case-law and reasoning made in connection with Universal's doctrine of equivalents motion *in limine* are equally relevant to the court's determination of Sandel's current motion *in limine* and the court reiterates that case-law and reasoning below.

In *Graver Tank & Mfg. Co., Inc. v. Linde Air Products Co.*, the United States Supreme Court stated that "a patentee may invoke [the] doctrine [of equivalents] to proceed against the producer of [an allegedly infringing] device if it performs substantially the same function in substantially the same way to obtain the same result."² The Federal Circuit has since "recognized the function, way, result test applied

¹ D.I. 149 at 1.

² 339 U.S. 605, 608 (1950) (internal quotations omitted).

in *Graver Tank*.³ Moreover, “substantial identity must be proven with regard to all three elements of the doctrine specified in *Graver Tank*: *function* performed, *means* by which function is performed, and *result* achieved.”⁴

“[T]he evidentiary requirements necessary to prove infringement under the doctrine of equivalents [include] . . . the need to prove equivalency on a limitation-by-limitation basis . . . [and] requir[es] equivalency to be proven with particularized testimony and linking argument.”⁵ The purpose of “[t]hese evidentiary requirements [is to] assure that the fact-finder does not, under the guise of applying the doctrine of equivalents, erase a plethora of meaningful structural and functional limitations of the claim on which the public is entitled to rely in avoiding infringement.”⁶ Therefore, “[i]n order to prevent the doctrine from expanding a patent’s protection beyond the scope of its claims, the Federal Circuit has warned that the application of the doctrine of equivalents should be ‘the exception . . . [and] not the rule’ in patent infringement actions.”⁷ The Federal Circuit has summarized the burden of establishing infringement under the doctrine of equivalents, stating that:

[A] patentee must . . . provide particularized testimony and linking argument as to the “insubstantiality of the differences” between the claimed invention and the accused device or process, or with respect to the function, way, result test when such evidence is presented to support

³ *Texas Instruments Inc. v. Cypress Semiconductor Corp.*, 90 F.3d 1558, 1566 (Fed. Cir. 1996).

⁴ *Lear Siegler, Inc. v. Sealy Mattress Co. of Michigan*, 873 F.2d 1422, 1425 (Fed. Cir. 1989) (emphasis in original).

⁵ *Texas Instruments*, 90 F.3d at 1566 (citations and internal quotations omitted).

⁶ *Id.* at 1567 (internal quotations omitted); see also *Hewlett-Packard Co. v. Musteck Sys., Inc.*, 340 F.3d 1314, 1322-23 (Fed. Cir. 2003) (stating that “the evidentiary requirements for proof of infringement under the doctrine of equivalents . . . require . . . provid[ing] evidence ‘on a limitation-by-limitation basis’ . . . [and] [t]hat evidence must have included ‘particularized testimony and linking argument.’” (citations omitted)).

⁷ *nCube Corp. v. Seachange International, Inc.*, 313 F. Supp. 2d 361, 377 (D. Del. 2004) (quoting *London v. Carson Pirie Scott & Co.*, 946 F.2d 1534, 1538 (Fed. Cir. 1991)).

a finding of infringement under the doctrine of equivalents. Such evidence must be presented on a limitation-by-limitation basis. Generalized testimony as to the overall similarity between the claims and the accused infringer's product or process will not suffice.⁸

A plaintiff asserting infringement under the doctrine of equivalents "must present *evidence* and *argument* concerning the doctrine and *each* of its *elements*. . . . The evidence and argument on the doctrine of equivalents cannot merely be subsumed in plaintiff's case of literal infringement. . . . Accordingly, the fact there was evidence and argument on literal infringement, that may also bear on equivalence," is insufficient to demonstrate infringement under the doctrine of equivalents.⁹

Like Universal, Sandel argues that the expert reports submitted by Hansman with regard to the accused functions of Sandel's Terrain Awareness Warning System ("TAWS") fail to meet these requirements for establishing infringement under the doctrine of equivalents.

The only claim which remains at issue in this litigation is claim 1 of U.S. Patent No. 4,914,436 ("the '436 patent").¹⁰ Claim 1 contains five elements and reads as follows:

1. A system for use in an aircraft for providing an enabling envelope for a ground proximity warning system for an aircraft comprising:

[1] a first source of signals representative of the longitude and latitude of an airport;

[2] a second source of signals representative of the current longitude and latitude of said aircraft;

⁸ *Id.*

⁹ *Lear Siegler*, 873 F.2d at 1425 (citations omitted).

¹⁰ At the November 19, 2004 pre-trial conference, Honeywell represented that it will limit its proofs of infringement to Claim 1 the '436 patent and will provide defendants a covenant not to sue with respect to the remaining claims of the '436 patent. See D.I. 132 at 161.

[3] means responsive to said first source of signals representative of the longitude and latitude of said airport and said second source of signals representative of the current longitude and latitude of said aircraft for computing the distance of said aircraft from said airport and providing an enabling envelope for enabling the warning system as a function of said distance of the aircraft with respect to said airport;

[4] a source of signals representative of the relative angular position of a particular runway with respect to the heading of the aircraft; and

[5] means responsive to said first and second sources of signals for providing a signal representative of the alignment of the aircraft with the runway by determining the angle between the runway and the heading of the aircraft.

Attached as Exhibit 2 to the Opening Expert Report of Robert John Hansman, Jr. Regarding Defendant Sandel¹¹ is a chart detailing Hansman's conclusions supporting his opinion that the accused Sandel product infringes the '436 patent. Hansman's report details evidence purportedly supporting his opinion of literal infringement of Sandel's TAWS for each of the elements of claim 1 of the '436 patent. That report makes no argument for infringement under the doctrine of equivalents with regard to the first and second limitations of the '436 patent.¹² Hansman's report purports to provide evidence of infringement under the doctrine of equivalents for the third, fourth, and fifth elements of claim 1.

The third element of claim 1 reads:

means responsive to said first source of signals representative of the longitude and latitude of said airport and said second source of signals representative of the current longitude and latitude of said aircraft for computing the distance of said aircraft from said airport and providing an enabling envelope for enabling the warning system as a function of said

¹¹ D.I. 149, Ex. 1.

¹² The first and second elements of the '436 patent are apparently not in dispute.

distance of the aircraft with respect to said airport.¹³

With regard to infringement under the doctrine of equivalents of the third element of claim 1 by Sandel's TAWS , Hansman's report recites:

In its Interrogatory Responses, Sandel states that its PDA does not include the "enabling means" element. Sandel does not provide any explanation of the basis for its position. Based on the reasons explained above, I conclude that it does include the claimed element. In addition, there is no substantial difference between the means by which Sandel enables its PDA capability and the means described in the patent. The function of the enabling means is to provide an enabling envelope for enabling the warning system as a function of the aircraft's distance to the airport. The way the enabling means of the patent performs this function is by providing an enabling envelope as a function of the distance to the airport. The result is that one or more modes of the warning system are enabled as a function of the distance to the airport. Sandel's ST3400 functions to enable its PDA capability in substantially the same way, with substantially the same result, as the means of the claim.¹⁴

Element 4 of claim 1 reads:

a source of signals representative of the relative angular position of a particular runway with respect to the heading of the aircraft.¹⁵

¹³ '436 patent, cl. 1.

¹⁴ D.I. 149, Ex 1, Ex 2 at 4/51-5/51, ¶ 12. The court notes its surprise that Hansman's purportedly particularized argument in support of the doctrine of equivalents for the third element of claim 1 with regard to Sandel's TAWS is almost *identical* to that contained in the Opening Expert Report of Robert John Hansman, Jr. Regarding Defendant Universal. That report recites:

In its Interrogatory Responses, Universal states that its TAWS does not employ a "means responsive" as required by the claim element. Universal does not provide any explanation of the basis for its position. Based on the reasons explained above, I conclude that it does include the claimed element. In addition, there is no substantial difference between the means by which Universal enables its MGCB capability and the means described in the patent. The function of the means of the patent is to provide an enabling envelope for enabling the warning system as a function of the aircraft's distance to the airport. The way the enabling means of the patent performs this function is by providing an enabling envelope as a function of the distance to the airport. The result is that one or more modes of the warning system are enabled as a function of the distance to the airport. Universal's TAWS functions to enable its MGCB capability in substantially the same way, with substantially the same result as the means of the claim. D.I. 100, Ex. 7, Ex. 2 at 6/50, ¶ 13.

The *only* differences in Hansman's reports concerning the doctrine of equivalents with regard to the third element of claim 1 regarding Sandel's and Universal's accused devices is the substitution of one defendant's name for the other and the substitution of the functionality (PDA and MGCB) of accused products for each other.

¹⁵ '436 patent, cl. 1.

With regard to infringement under the doctrine of equivalents of the fourth element of claim 1 by Sandel's TAWS, Hansman's report recites:

In its Interrogatory Responses, Sandel states that its VAP capability does not include a source of signals representative of the relative angular position of a runway with respect to the "heading", as the term is defined in the patent. Universal does not provide an explanation for the basis of its position. Based on the reasons explained above, I conclude that it does include the claimed element. In addition, there is no substantial difference between the signals of Sandel's system and the signals described in the claim. The function of the signals in this claim is to represent the relative angular position of a particular runway with respect to the "heading" (bearing) of the aircraft. The way the signals represent the relative angular position is by representing the orientation or bearing of the runway and the angle formed between the line segment connecting the aircraft's position to an airport and a reference datum, or the bearing of the aircraft. The result is signals representative of the relative angular position of a particular runway with respect to the "heading" (bearing) of the aircraft. The signals mvap_brg, t_brg, ac_mvap_brg, and ac_svap_brg of the Sandel system perform substantially the same function, in substantially the same way, to achieve substantially the same result.¹⁶

The fifth element of claim 1 reads:

means responsive to said first and second sources of signals for providing a signal representative of the alignment of the aircraft with the runway by determining the angle between the runway and the heading of the aircraft.¹⁷

With regard to infringement under the doctrine of equivalents of the fifth element of claim 1 by Sandel's TAWS, the Hansman report recites:

In its Interrogatory Responses, Sandel states that its VAP capability does not include a means responsive to latitude and longitude signals for providing an alignment signal. Sandel has not provided an explanation of

¹⁶ D.I. 149, Ex. 1, Ex. 2 at 8/51, ¶ 26. In the interest of space and avoidance of repetition, the court will not include herein a recitation of Hansman's doctrine of equivalents "argument" with regard to this element of the '436 patent contained in his report on Universal's products. The court notes that, as with the third element of claim 1, Hansman's Sandel and Universal reports concerning the fourth element of claim 1 are again identical except for the party/device substitutions described in note 14, above. Cf. D.I. 100, Ex. 7, Ex. 2 at 8/50, ¶ 17.

¹⁷ '436 patent, cl. 1.

the basis for its position. Based on the reasons explained above, I conclude that it does include the claimed element. In addition, there is no substantial difference between the Sandel system and this element of the claim. The function of this element is to provide a signal representative of the alignment of the aircraft with the runway. The way this element performs this function is by determining the angle between the runway and the “heading” (bearing) of the aircraft. The result is that the invention generates a signal representative of the angle of alignment of the aircraft with the runway. Sandel’s ST3400 performs substantially the same function, in substantially the same way, to achieve substantially the same result through its calculation of `ac_mvap_az` and `ac_svap_az`.¹⁸

In each of the above-quoted passages, Hansman states that “there is no substantial difference between” the particular element discussed and certain aspects of Sandel’s accused product followed by a quotation or rewording of ‘436 patent’s claim language purportedly setting forth the function/way/result elements of the *Graver Tank* test and concludes with a conclusory statement declaring that certain aspects of Sandel’s accused product has “substantially the same” function/way/result as the element being discussed.

Although Federal Circuit precedent

does not go so far as to require recitation of the magic words ‘function’, ‘way’, and ‘result’, we think that it at least requires the *evidence* to establish *what* the function, way, and result of *both* the claimed device and the accused device are, and *why* those functions, ways and results are substantially the same.¹⁹

Here, Hansman’s conclusory statements concerning Sandel’s accused product are not sufficient evidence as to “why those functions, ways and results are substantially

¹⁸ D.I. 149, Ex. 1, Ex. 2 at 10/51 ¶¶ 32. Once again, Hansman’s doctrine of equivalents “argument” with regard to the accused Universal and Sandel products is substantially identical in his reports on each defendants’ products. Cf. D.I. 100, Ex. 7, Ex. 2 at 10/50 ¶¶ 23.

¹⁹ *Malta v. Schulmerich Carillons, Inc.*, 952 F.2d 1320, 1327 n.5 (Fed. Cir. 1991) (emphasis in original).

the same” as the disputed claim 1 elements of the ‘436 patent.²⁰ This is most starkly evident in view of Hansman’s near verbatim “arguments” with regard to the doctrine of equivalents made with respect to both Sandel’s and Universal’s accused products. Such “cut-and-paste” technique in addressing the different accused products of two different companies demonstrates the utter failure Hansman’s reports “to prove equivalency on a limitation-by-limitation basis . . . [and to prove] equivalency with *particularized testimony and linking argument*.”²¹

Furthermore, the court notes that Federal Rule of Civil Procedure 26(a)(2)(B) requires that:

Except as otherwise stipulated or directed by the court, [the disclosure of expert testimony] shall, with respect to a witness who is retained or specially employed to provide expert testimony in the case . . . be accompanied by a written report prepared and signed by the witness. The report shall contain a complete statement of all opinions to be expressed *and the basis and reasons therefore*; the data or other information considered by the witness in forming the opinions; any exhibits to be used as a summary of or support for the opinions.²²

The *Advisory Committee Notes* to the 1993 Amendments regarding paragraph (2)(B) of Rule 26 provides that:

persons retained or specially employed to provide expert testimony . . . must prepare a detailed and complete written report, stating the testimony the witness is expected to present during direct examination, together with the reasons therefor. The information disclosed under the former rule in answering interrogatories about the ‘substance’ of expert testimony was frequently so sketchy and vague that it rarely dispensed with the need to

²⁰ See, e.g., *Lemelson v. The United States*, 752 F.2d 1538, 1551 (Fed. Cir. 1985) (“giv[ing] no weight to the series of conclusory statements offered by [plaintiff’s] expert witness”); *MKS Instruments, Inc. v. Advanced Energy Industries, Inc.*, 325 F. Supp. 2d 471, 473 (D. Del. 2004) (“Conclusory statements are not enough to sustain a claim of equivalence.”).

²¹ *Texas Instruments*, 90 F.3d at 1567 (emphasis added) (citations and internal quotations omitted).

²² Fed. R. Civ. P. 26(a)(2)(B) (emphasis added)

depose the expert and often was even of little help in preparing for a deposition of the witness. Revised Rule 37(c)(1) provides an incentive for full disclosure; namely, that a party will not ordinarily be permitted to use on direct examination any expert testimony not so disclosed. . . . [T]he report, *which is intended to set forth the substance of the direct examination, should be written in a manner that reflects the testimony to be given by the witness.* . . .²³

To the extent that Honeywell's expert were to be permitted to testify concerning purported infringement of Sandel's accused product under the doctrine of equivalents, therefore, that testimony would necessarily be limited to the conclusory assertions of infringement under the doctrine. Because that testimony is insufficient for that purpose, Sandel would be entitled to a directed verdict of non-infringement under the doctrine of equivalents.

As a result of a lack of "particularized testimony and linking argument" contained in Hansman's report and the limitation which would be imposed in any event by Rule 26(a)(2)(B) on Hansman's testimony with regard to the purported infringement of Sandel's ST3400 product under the doctrine of equivalents:

IT IS ORDERED THAT:

Sandel Avionics, Inc.'s motion *in limine* (D.I. 149) is **GRANTED**.

²³ Fed. R. Civ. P. 26(a)(2)(B), Committee Notes, 1993 Amendments (emphasis added).