

against them related to the '732 patent were invalid under 35 U.S.C. §§ 102 and 103; that LME and ERS had not infringed any of the asserted claims of the '732 patent; and that Ericsson had not infringed claim 7 of the '732 patent.

On May 15, 2001, Harris Corporation ("Harris") likewise filed its Motion for Partial Summary Judgment Regarding the '732 Patent, in which it sought summary judgment on certain literal infringement claims (claims 1, 3, 7, 39, and 49), and summary judgment that the '732 was not invalid, anticipated by prior art, obvious, or invalid because of inequitable conduct before the patent office. It also sought summary judgment on Ericsson's printed publication defense.

On October 1 and 2, 2001, the Court heard oral argument on these Motions.¹ As to the '732 Motions, the Court granted Ericsson's Motion for Summary Judgment on the inapplicability of the experimental use exception, and the non-infringement of claim 7. The Court granted Harris's Motion on Ericsson's printed publication defense, and reserved judgment on Harris's Motion that the Walsh patent and Mills article did not anticipate the '732 patent and that the alleged failure to

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In addition to companion Motions for Summary Judgment regarding the '732 patent, the Court heard argument regarding several other pending motions in this case:

- Harris's Motion for Reconsideration of Order Denying Motion to Realign;
- Harris's Motion for Leave to Amend;
- Ericsson's Motion for Partial Summary Judgment of Invalidity Regarding the '338 Patent;
- Ericsson's Motion for Partial Summary Judgment of Non-Infringement, or, Alternatively, Invalidity under 35 U.S.C. § 112 ¶ 1 of the '338 Patent;
- Harris's Motion for Partial Summary Judgment Regarding the '338 Patent;
- Ericsson's Motion for Partial Summary Judgment of Non-Infringement, or, Alternatively, of Invalidity Regarding the '666 Patent;
- Harris's Motion for Partial Summary Judgment Regarding the '666 Patent;
- Harris's Motion for Partial Summary Judgment Regarding the '111 Patent.

disclose certain non-Harris prior art did not constitute inequitable conduct.² The Court denied the Motions in all other respects, except as to Ericsson's Motion that the 1982 United States Army CECOM contract created an on-sale bar to the validity of the '732 patent on which the Court reserved its ruling. The Court preliminarily found that fact issues remained on whether an offer for sale incorporated the invention of the '732 patent and whether the invention was "ready for patenting." In reaching that preliminary conclusion, the Court relied, in part, on evidence introduced at the hearing that was not a part of the summary judgment filing. Harris introduced the January 1983 and October 1983 CECOM Quarterly Reports in an attempt to disprove any alleged intention to offer the '732 patent for sale in the CECOM contract. Ericsson now requests the Court to strike the evidence and find the '732 patent invalid under the on-sale bar.

SUMMARY OF THE PATENT

The '732 patent, issued on July 8, 1986, has an effective filing date of April 17, 1984, and names Ronald S. LeFever ("LeFever") as the inventor. The patent is entitled "Technique for Acquiring Timing and Frequency Synchronization for Modem Utilizing Known (Non-data) Symbols as Part of Their Normal Transmitted Data Format" and upon issuance was assigned to Harris.

The '732 patent allows data messages (such as voice transmissions) transmitted from a transmitter to a receiver (such as from the base station to a cellular telephone receiver) to be reproduced by the receiver free from distortion. Previously, an initialization sequence was required to allow the receiver an opportunity to identify where the data transmission originated. This initialization sequence consumed valuable bandwidth. The '732 teaches a method of detecting

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During the hearing, Ericsson conceded that failure to disclose a named inventor was not a ground for inequitable conduct under the facts of this case.

known symbols in a transmission through signal processing equipment. Instead of the separate initialization sequence, known sequences are interleaved with unknown sequences. The receiver can determine where the known sequence was interleaved and then it can synchronize itself with the transmitted message (obtaining location, timing, and frequency information about the transmission). Then, if the frequency and phase properties of the signal are distorted by the channel, the receiver can account for these changes through various synchronization functions.³

The '732 patent and the '338 patent are related. The '732 patent acknowledges that the prior art McRae '338 patent discloses interleaving blocks of known symbols with the data message being transmitted in order to update the settings (weighting coefficients) of the receiver equalizer to track the dynamic characteristics of the communications channel. The '732 patent uses known data already interleaved in the data for synchronization as well as equalization in order to eliminate the need for the initialization sequence. Thus, the '732 patent not only uses the interleaving and equalization as set forth in the '338 patent, but it also uses the known data to perform a synchronization process.

FACTUAL BACKGROUND

Certain facts are necessary to the determination of Ericsson's invalidity defense:

- ▶ LeFever, the inventor of the '732 patent, worked in the Advanced Technology Department ("ATD") throughout the 1970's and 1980's, principally in the research and development of various government projects. The ATD was a research group concerned with advanced development of various technologies, including High Frequency ("HF") Radio Communications, to which the '732 applies.

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Alignment of the frequency between the transmitter and receiver is called frequency synchronization. Aligning the receiver to process the correct number of symbols being transmitted is called symbol rate synchronization. Frame or word synchronization is the process of determining where a block of digital data symbols is located in the received signal. The block of symbols is referred to as a frame or word.

- ▶ Harris alleged that it frequently defrayed the cost of research and development (“IR&D” work) by completing some of its IR&D work in government contracts pursuant to various federal regulations and agreements with the government, including providing to the U.S. Department of Defense certain annual and quarterly IR&D reports or data sheets. IR&D data sheets are not offers to sell anything. Only after a Request for Proposal (“RFP”) has been issued by a government agency and a proposal submitted by a company will a government contract be awarded.

- ▶ In July, 1982, Harris submitted its annual report for fiscal year 1983. It described a new concept for synchronization that this Data Sheet indicated would be developed and implemented in fiscal year 1983. The Data Sheet stated that LeFever had been working on a HF Modem development project.

- ▶ In 1982, during the time frame of the development of the ‘732 patent, Harris and LeFever were awarded the Air Force RADC contract for the Message Mode Modem, a low rate spread spectrum modem.⁴ During this time, LeFever conceived of the idea that some principles applicable to synchronization in the Message Mode Modem might work to solve some problems being addressed by the HF Modem development team. He memorialized his ideas in his lab notebook on March 15, 1982.

- ▶ The U.S. Army CECOM issued a Statement of Work (“SOW”) on December 29, 1981, detailing technology to be developed under the CECOM modem contract. The CECOM modem required the delivery of two working breadboard models of the modem using construction techniques that would permit the units to withstand normal bench handling and a moderate amount of movement in the laboratory environment. On July 7, 1982, Harris responded to the RFP, which was attached to the SOW, by submitting a Technical Proposal. It was awarded the contract on September 30, 1982.

- ▶ Harris worked on the development of the CECOM breadboard modem in 1983 and early 1984 and delivered it in the first quarter of 1984. Between May and June 1984, the modem incorporating certain ‘732 synchronization techniques was tested over the air, for the first time.

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In a spread spectrum modem, no known symbols are sent. Thus, there is no interleaving of known and unknown symbols. Instead, data is encoded as one of a number of possible randomizing sequences.

- ▶ LeFever presented some slides to the working group relating to a portion of the claimed invention in January 1983.
- ▶ On or about April 19, 1983, Harris made another proposal, in response to the RADC's RFP for an Advanced Development Model Modem, relating to the '732 technologies.
- ▶ LeFever submitted an Invention Disclosure Form in August of 1983, identifying the conception date as March 15, 1982. Harris filed its '732 patent application on April 17, 1984. The critical date for the '732 patent is April 17, 1983, one year prior to the filing of the '732 patent application (and two days before the proposal described immediately above).
- ▶ In July 1983, Harris submitted an IR&D Data Sheet relating to proposed work in fiscal year 1984. It identified "new synchronization and tracking algorithms" as work to be done.

ANALYSIS

A. The Quarterly Reports

In making its argument against the on-sale bar, Harris relied on evidence it introduced, for the first time, at the summary judgment hearing. Specifically, Harris offered two CECOM Quarterly Reports, for January and October 1983, to disprove any intention on its part to offer for sale in the CECOM contract the invention described in the '732 patent. Ericsson now requests that the Court strike the evidence and find the '732 patent invalid under the on-sale bar. The Court permitted Ericsson to respond to the validity arguments raised by the evidence first advanced at the hearing.

In response to the Government's SOW issued in December 1981, in July 1982, Harris submitted a Technical Proposal. Neither party has been able to locate the Proposal. Harris relied on the CECOM 1983 Quarterly Reports to support its contention that it did not make a decision to include any '732 techniques in the CECOM modem until, at the earliest, the period covered by the October 1983 Quarterly Report, which was long after the submission of the Technical Proposal. Ericsson argues that these reports should be stricken as untimely and as violative of the best

evidence rule.⁵

Quarterly reports are submitted by government contractors to inform the contracting agency of its progress. In a sworn affidavit attached to Harris's Response, Ralph C. Nash, Jr., retained by Harris to provide expert testimony on the general practices and procedures relating to government contracts, testified that such updates generally describe how much development has been done, the performance characteristics of the work done as of the date of the report, and an analysis of whether the technological solutions proposed in the contract proposal are proving to be successful in meeting the government's needs or whether changes need to be made.

1. Best Evidence

Ericsson argues these reports are inadmissible under the best evidence rule contained in Rules 1002 and 1004 of the Federal Rules of Evidence.⁶ The Quarterly Reports were offered to demonstrate the intent of the parties to the contract, not to prove any specific term or "content" in

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At the hearing, the Court ordered Harris's counsel to propose appropriate sanctions for its failure to timely include the Quarterly Reports in the summary judgment record. This was done, and the Court took the matter under advisement. Harris correctly notes that the reports were deemed part of the summary judgment record by the Court. In lieu of sanctions, the Court gave Ericsson an opportunity to more fully respond to the consideration of these reports.

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Rule 1002. Requirement of Original

To prove the content of a writing, recording, or photograph, the original writing, recording, or photograph is required, except as otherwise provided in these rules or by Act of Congress.

Rule 1004. Admissibility of Other Evidence of Contents

The original is not required, and other evidence of the contents of a writing, recording, or photograph is admissible if--

- (1) Originals Lost or Destroyed. All originals are lost or have been destroyed, unless the proponent lost or destroyed them in bad faith; or
- (2) Original Not Obtainable. No original can be obtained by any available judicial process or procedure;

the missing Technical Proposal, and to rebut Ericsson's arguments.⁷

The Reports restate the objective of the project-- "to deliver two breadboard modems designed to effectively combat the HF channel and to provide data on the performance of the modem design," and then disclose progress, modifications, and plans under the project. Surrounding circumstances are important in deciphering the intent, knowledge, and purpose of the parties to the contract. The cases relied on by Ericsson rest on different facts from those present here.⁸ This type

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Dalton v. F.D.I.C., 987 F.2d 1216, 1223 (5th Cir. 1993) (finding the defendant could use either an affidavit of a financial officer or use the bank's documentation to prove the account deficiency because the plaintiff could not "use the best evidence rule to force the [defendant] to produce the particular type of evidence of the loan that he would prefer"); *United States v. Jackson*, 451 F.2d 259, 261 (holding that the "this rule is 'limited to cases where the contents of a writing are to be proved.'" and allowing testimony without fingerprint evidence being produced) (citations omitted)). See also JACK V. WEINSTEIN & MARGARET A. BERGER, WEINSTEIN'S FEDERAL EVIDENCE § 1002.03 (2d ed. 1997) ("[t]he rule promotes the prevention of fraud because it allows the parties to examine documents for any defects or alterations, and it dampens any desire to color testimony as to the contents of documents, since any testimony is subject to immediate corroboration").

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The cases relied on by Ericsson on this point are of varied origin (they range from a 1932 Board of Tax Appeals' case to a more recent unpublished Northern District of California case) and largely unhelpful. Those that find evidence inadmissible under the "best evidence" rule did so because the proponent of the pivotal evidence was attempting to admit secondary evidence to prove a specific term or content or because the proponent had destroyed a specific portion of a contract. See, e.g., *Cartier v. Jackson*, 59 F.3d 1046, 1048, 49 (10th Cir. 1995) (finding the plaintiff in a copyright action could not rely on secondary evidence to prove what is "best" evidenced through the actual demo tapes of the songs claimed to be copyrighted); *Seiler v. Lucasfilm, Ltd.*, 808 F.2d 1316, 1319 (9th Cir. 1986) (plaintiff's drawings in a copyright infringement case were the best evidence of alleged infringement), *cert. denied*, 484 U.S. 826 (1987); *Sylvania Elec. Prod., Inc. v. Flanagan*, 352 F.2d 1005, 1008 (1st Cir. 1965) (holding inadmissible secondary evidence of truck hour records where the best evidence of the plaintiff's performance of work for which he sought recovery were tally sheets made for the specific purpose of recording such performance); *Consolidated Coke Co. v. Comm'r of Internal Revenue*, 25 B.T.A. 345, 358 (1932) (party "caus[ing] the minutes to be removed from the minute book and destroyed" could not rely on secondary evidence), *aff'd*, 70 F.2d 446 (3d Cir. 1934). Ericsson's expert, General Skantze, described the typical Request for Proposal and attached Statement of Work, like that Harris responded to with its Technical Proposal, as "a principal attachment to [a Request for Proposal] which fully describes the technical requirements, all specifications and other documents, as well as the specific instructions

of evidence should not be barred by the best evidence rule.

Further, even if the best evidence rule applied here, fraud or bad faith in the loss or destruction of the Technical Proposal has not been shown.⁹ The copy of the contract from the files of the CECOM legal department is identical to the copies from Harris's files and the copies provided to Ericsson by Harris. While Harris cannot locate the Technical Proposal it made in response to the Government's SOW, no part of the consecutively numbered fifty-two page contract was removed and destroyed.¹⁰ The contract indicates that it is "subject to" performance in accordance with the documents listed in Section C of the contract, including the Technical Proposal, thus incorporating

to the offerors and the criteria to be used for selecting a winning proposal." Although the language in the Technical Proposal would certainly help to illuminate the intent and knowledge of the parties to the CECOM contract, it is but one cog, especially given the apparent fluidity of the CECOM contract, it is not the only relevant document.

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See Bituminous Cas. Corp. v. Vacuum Tanks, Inc., 975 F.2d 1130, 1132 (5th Cir. 1992), ("[w]here the actual policy is not available, the terms of the contract can also be shown by secondary evidence This type of secondary evidence is admissible under Federal Rule of Evidence 1004 as long as the original contract has not been destroyed or lost in bad faith.") (citations omitted), *abrogated on other grounds*, *Federated Mut. Ins. Co. v. Grapevine Excavation, Inc.*, 241 F.3d 396, 398 n. 3 (5th Cir. 2001). The applicable contract was apparently formed in 1987. Harris asserted that if the Proposal was destroyed, it was in accordance with the "long-standing statutory requirement relating to examination of records" and the normal course of business. *See United States v. Dudley*, 941 F.2d 260 (4th Cir. 1991), *cert. denied*, 502 U.S. 1046 (1992). No evidence to the contrary was adduced.

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Although Ericsson never raised a spoliation claim before the Court, the absence of the Technical Proposal has weighed heavily in this litigation. Ericsson asserts that the proposal was a part of the CECOM contract and that Harris destroyed this "portion" or "missing part" of the contract. Ralph C. Nash, Jr. testified, in his affidavit, that there is no "missing part" of the CECOM contract and that the copies of the contract produced by Harris were complete copies of the fifty-two page contract with four attachments. This accords with information obtained from the government. Harris cites this evidence to respond to Ericsson's "bad faith" allegations. Ericsson postures that it is curious that Harris would destroy this part of the contract but not other parts of the contract. The curious nature is lessened with evidence that CECOM is likewise missing the Technical Proposal, but not any part of the fifty-two page consecutively numbered contract.

it by reference, but does not include the Proposal as an attachment or insert. In his sworn declaration, G. Mitchell Evander, in-house counsel for Harris, recounted the “substantial” efforts Harris made, both before and after the summary judgment hearing, to locate any copies of the Technical Proposal, both inside Harris and within the United States Army, CECOM. The Army indicated that the documents related to this contract had been destroyed in accordance with its customary procedures. Additionally, an outside firm familiar with the military contracting processes was hired to assist in attempting to locate documents, but the Technical Proposal could not be located.

Nevertheless, to say Harris’s document handling procedure has been sloppy is an understatement. This may be a result of disuniform policies between the different departments in Harris, but it is unclear. Harris produced one Record Identification/Input Form, dated July 8, 1993, from the contracts department that identified CECOM document destruction, listing the date for the “Proposal,” and contract as July 2000, two years after this litigation began.¹¹ In contrast, in her February 20, 2000 deposition, Harris’s corporate representative, Sherryl Mull, states that the destruction schedule for the CECOM contract materials was “FP plus 3,” meaning final payment plus three years. Final payment was received in 1987, so the destruction under this scenario would have been 1990. Mull’s only explanation for why the SOW and Final Report relating to the contract were not destroyed, but the contract folders containing the Technical Proposal were, was that “[a]pparently the other ones were in a different file.” Though the Court is unimpressed with this

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It produced another Record Identification/Input Form, dated February 10, 1988, from the GCSD, Contract Department with a destruction date for the “Contract, Incoming/outgoing Correspondence, RI File--BAFO, Cost Proposal I and II” of 2020. No other “Proposal” is specifically itemized as it is in the July 8, 1993 Record Identification Form.

haphazard approach, it does not rise to the level of bad faith.¹² Even assuming the Technical Proposal would be the “best evidence” of Harris’s intent to offer the Army, under the CECOM contract, ‘732 synchronization techniques, Harris made a sufficient showing of a reasonable and diligent search for the evidence, and the Court thus will not exclude the reports.¹³

2. Timeliness of the Quarterly Reports

Ericsson also argues the evidence contained in the Quarterly Reports should be stricken from the record as untimely. Ericsson cites Local Rules 7.1 and 56.7 as requiring that any evidence used to oppose a motion must be included in an appendix to the opposition.¹⁴ It is undisputed that Harris

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Ericsson offers *Carlucci v. Piper Aircraft Corp.*, 102 F.R.D. 472, 484 (S.D. Fla. 1984), as persuasive authority. In *Piper*, the district court found the destruction of certain crucial engineering documents by an aircraft manufacturer defendant in a product liability action was an intentional, deliberate, willful, and contumacious attempt to eliminate the plaintiffs’ right to bring their design defect claim, justifying the most severe sanction. There, the defendant had consistently disobeyed court orders to produce documents, obstructed discovery, delayed proceedings, made misrepresentations to the court, and had previously been sanctioned by the court for bad faith conduct. Further, while the defendant represented that it had only one document regarding an investigation of its product, a letter from the National Transportation Safety Board later surfaced some three years into litigation. In light of the defendant’s failure to make any search for necessary documents the Court had ordered produced, this development led the court to rule that the document retention policy was a sanctionable sham. Harris’s apparent lack of consistency in the company’s destruction of certain documents does not rise to the level of willfulness seen in *Piper*.

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Sylvania Elec. Prod., Inc. v. Flanagan, 352 F.2d 1005, 1008 (1st Cir. 1965). *See also United States v. England*, 480 F.2d 1266, 1268 (5th Cir.) (testimony by the defendant about the content of a letter was excluded as violating the best evidence rule, when he offered little explanation for the loss of a copy), *cert. denied*, 414 U.S. 1041 (1973).

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LR 7.1 Motion Practice

Unless otherwise directed by the presiding judge, motion practice is controlled by subsection (h) of this rule. In addition, the parties must comply with the following:

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(i) Requirement of Appendix; Appendix Requirements.

(1) A party who relies on documentary (including an affidavit, declaration, deposition, answer to interrogatory, or admission) or non-documentary evidence to support or oppose

did not follow the local rules as to the Quarterly Reports.

The Quarterly Reports were produced by Harris between November 1, and early December 2000, as part of an approximately 700,000 page document production that occurred as a result of Special Master Peterson's Order, which gave Harris five days to produce all documents related to certain government contracts and other projects. Due to the expedited production, Harris claims it did not have an opportunity to review the documents prior to production, and there was a delay in receiving CD-ROM versions. The Reports were apparently reviewed by one of Ericsson's experts, General Lawrence A. Skantze, who referenced the January Report in his Supplement to Expert Report, attached as an exhibit to Ericsson's Motion for Partial Summary Judgment.¹⁵

Although Ericsson has been substantially inconvenienced by Harris's failure to provide advance notice that it would be relying on two reports in a virtual avalanche of documents produced, the Court finds that it should consider the Reports and thus considers them as a Supplement to

a motion must include such evidence in an appendix.

LR 56.7 Limit on Supplemental Materials

Except for the motions, responses, replies, briefs, and appendixes required by these rules, a party may not, without the permission of the presiding judge, file supplemental pleadings, briefs, authorities, or evidence.

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General Skantze's Supplement related to the Quarterly Reports reads as follows:

The Harris Corporation Technical Proposal EC882 0973 00, dated 8 July 1982, had responded exactly to the Army contract requirements. *The First Quarterly Status Report from Harris on the CECOM HF Modem design, dated 3 January 1983*, indicated great progress and high confidence in the fabrication of the two Modems. It also indicated great progress in codifying and applying reusable software modules and techniques from the RADC Modem.

Harris's Appendix.¹⁶

B. The Validity of the '732 Patent under the "On-Sale Bar" of 35 U.S.C. §102(b) with the Quarterly Reports

Pursuant to the "on sale bar" specified in 35 U.S.C. §102(b), a patent is invalid if the patented invention was sold or offered for sale more than one year before the filing of the patent application, the so-called "critical date:"

A person shall be entitled to a patent unless—

. . . (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country more than a year prior to the date of the application for patent in the United States¹⁷

The on-sale bar serves to exclude "ideas that are in the public domain from patent protection and confin[e] the duration of the monopoly to the statutory term" by not allowing an inventor to delay taking out a patent to preserve a monopoly and use it for profit longer than is allowed under the statutes.¹⁸

The ultimate determination of whether a patent is invalid under 35 U.S.C. §102(b) is a question of law based on underlying factual considerations.¹⁹ Ericsson bears the burden of proving

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See Lupo v. Wyeth-Ayerst Lab., 4 F. Supp. 2d 642, 646 (E.D. Tex. 1997) (balancing several factors, including the proponent's accessibility to the evidence, the believability of the proponent's explanation for the delay, the proponent's opportunity to submit the evidence, the probable prejudice to the opponent if the evidence is admitted, and the strength of the evidence).

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35 U.S.C. §102(b).

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Altech Controls Corp. v. E.I.L. Instr., 71 F. Supp. 2d 661, 664, n.4 (S.D. Tex. 1999), *aff'd*, No. 00-1216, 2001 WL 487603 (Fed. Cir. May 2, 2001).

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Brasseler U.S.C.A.I.L.P. v. Striker Sales Corp., 182 F.3d 888, 889 (Fed. Cir. 1999).

the invalidity of the '732 patent by clear and convincing evidence.²⁰ A single sale or offer to sell triggers the on-sale bar.²¹

In 1998, the Supreme Court clarified the test for demonstrating the application of the on-sale bar.²² Ericsson must now show that: (1) the '732 invention was the subject of a commercial offer for sale more than one year before the filing date of the patent; and (2) the '732 invention was "ready for patenting" more than one year before the filing date of the patent.²³ Although, in its supplemental papers, Ericsson reurges arguments related to the "ready for patenting" prong, the Court has already ruled on this issue in Harris's favor.²⁴ It will thus limit its analysis to whether the evidence should be stricken from the record and whether the parties to the CECOM contract intended the offer of sale to include the '732 invention.

The critical date for the '732 patent is April 17, 1983, one year prior to the filing of the '732

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Monon Corp. v. Stoughton Trailers, 239 F.3d 1253, 1257 (Fed. Cir. 2001).

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Intel v. U.S. Int'l Trade Comm'n, 946 F.2d 821, 830 (Fed. Cir. 1991).

²²

Pfaff v. Wells Elec., Inc., 525 U.S. 55, 62 (1998) (observing the Patent Act's on-sale provision should provide "inventors with a definite standard for determining when a patent application must be filed").

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Id.

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The Court, by letter dated October 11, 2001, gave Ericsson the opportunity to file supplemental briefing "limited to the issues raised by Harris's newly offered evidence and argument during the October 1, 2001 hearing and may be no longer than ten pages." The Court notes that Ericsson disregarded both instructions.

At the October 1, 2001 hearing, Harris argued its activities in conjunction with the CECOM contract amounted to an "experimental use" of the '732 technologies, negating any on-sale bar. The Court granted Ericsson's Motion on this claim, finding that the "experimental use" exception to the on-sale bar was not applicable to the facts of this case.

patent application. The CECOM contract was entered into on September 29, 1982, months prior to the critical date. Under the contract, Harris agreed to sell to the U.S. Army an HF (CECOM) Modem and to fabricate and test two breadboard modems, for \$204,850.00. Ericsson contends the CECOM modem contained the inventions set forth in claims 1, 3, 39, and 49 of the '732 patent.

CECOM issued a SOW on December 29, 1981— several months before the date of conception of the '732 patent— detailing the technology to be developed under the contract. In particular, the SOW for the CECOM contract required the delivery of “working, breadboard modems of the modem using construction techniques that will permit the units to withstand normal bench handling and moderate amount of movement in a laboratory environment.” The contract provided for “[services, facilities and materials for a period of twelve (12) months to investigate and design a High Frequency (HF) Modem, and to fabricate and test two (2) breadboard modems.” In response to the SOW, Harris, in July 1982, submitted the now missing Technical Proposal. As described above, at the hearing, Harris relied on CECOM 1983 Quarterly Reports to support its contention that it did not make a decision to include '732 techniques in the CECOM modem until, at the earliest, the period corresponding to the October 1983 Quarterly Report. The January 1983 Quarterly Report discusses “changes” being made from the proposal baseline “which [will] result in a more robust algorithm,” but stated that “algorithms determining final PN alignment ha[d] not yet been determined.” In a sworn affidavit, LeFever likewise stated that “[a]t the time of the January 1983 Quarterly Report, the final algorithms to be used for each [PN algorithm] had not been determined.” Harris argues this raises doubt on whether it had made a decision before the critical date as to how to accomplish synchronization between the “initial” and “final” PN alignments. The October 1983 Quarterly Report contains the first discussion of a “frame,” the interleaved PN sequence, as opposed to the conventional initialization sequence or preamble. Further, the October

1983 Quarterly Report arguably represents that the ‘732 technique constituted a change from what was in the Technical Proposal: “[a]cquisition for these rates is a modification of that presented in the proposal.” Directly following this “modification” language is discussion of the new synchronization process ultimately found in the ‘732.²⁵

The standard used in determining whether Harris offered to sell the invention is whether the evidence objectively indicates that Harris offered or sold a product embodying the invention.²⁶ Established concepts of contract law should be employed to determine whether a sale or offer to sell has taken place for on-sale bar purposes.²⁷ An offer or sale can exist even though details of the invention are not disclosed in the offer or sale.²⁸ Harris argues it developed the technology in the course of performing obligations under the contract. The fact that the modem actually delivered pursuant to the contract included the ‘732 invention is strong evidence that the offer for sale

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As further evidence of the fluidity of the contract, Harris asserts that the synchronization technique implemented in the delivered CECOM modem was different from that described in the October 1983 Quarterly Report in that “design decisions obviated the need for any ‘initial’ synchronization step, and instead, the ‘732 technique of sync on data only was implemented.”

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Group One, Ltd. v. Hallmark Cards, Inc., 254 F.3d 1041, 1046 (Fed. Cir. 2001), *cert. denied*, 122 S. Ct. 1063 (Nov. 5, 2001) (No. 01-690). *See also Linear Technology Corp. v. Micrel, Inc.*, 275 F.3d 1040, 1047 (Fed. Cir. 2002) (“applying contract law principles to the on-sale bar will help create the certainty of application that the Supreme Court sought when it enunciated its holding in *Pfaff*”).

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Id. at 1046 (in the wake of Supreme Court precedent, the totality of the circumstances is rejected in favor of a more rigid two-part test, but whether there is an offer for sale of the invention is analyzed with reference to general contract law).

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Ferag AG v. Quipp, Inc., 45 F.3d 1562, 1568 (Fed. Cir. 1995), *cert. denied*, 516 U.S. 816 (1995); *King Instrument Corp. v. Otari Corp.*, 767 F.2d 853, 860 (Fed. Cir. 1985) (“the purchaser need not have actual knowledge of the invention for it to be on sale”), *cert. denied*, 475 U.S. 1016 (1986).

included the invention.²⁹ The CECOM SOW was directed at the very type of modem– the HF Modem– Harris was working on during the relevant time frame for the development of the ‘732 invention.

Ericsson cites several cases, all involving incomplete inventions, for the proposition that the fact that a project is incomplete will not defeat an otherwise applicable on-sale bar.³⁰ Harris does not dispute this point. Instead, it argues that, before the critical date, the parties could not know that the modem under development would encompass the ‘732 invention because the decision to include the ‘732 synchronization technology was not made until after the critical date. While there is no requirement that the purchaser have actual knowledge of details of the invention to invoke the on-sale bar,³¹ what the purchaser reasonably believes the inventor to be offering can be relevant to whether, on balance, the offer may be said to have included the patented invention.³²

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King, 767 F.2d at 861.

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See Keystone Retaining Wall Sys., Inc. v. Westlock, Inc., 997 F.2d 1444, 1451 (Fed. Cir. 1993) (holding a determination that an invention was on-sale within the meaning of the statute requires that a sale be operable, the complete invention claimed be embodied in, or obvious from the device offered for sale, and the sale or offer be primarily for profit rather than for experimental purposes).

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The invention that is the subject matter of the offer for sale must satisfy each claim limitation of the patent, but this can be inherent in the product or process being offered. *Atlas Powder Co. v. Ireco, Inc.*, 190 F.3d 1342, 1347 (Fed. Cir. 1999) (inherent inclusion of the patent).

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King Instruments, 76 F.2d at 860. *See also Pfaff*, 525 U.S. at 62 (under the first prong of the on-sale bar, the evidence as a whole must be analyzed); *Altech Controls Corp.*, 71 F. Supp. 2d at 667 (looking to the surrounding circumstances to determine whether there was a sale or an offer for sale).

Ericsson cites *Ferag AG v. Quipp Inc.*,³³ and *Scaltech, Inc. v. Retec/Tetra, L.L.C.*,³⁴ in support of its argument that whether or not the Army or even Harris recognized it, Harris offered its '732 synchronization technique for sale before the critical date. Ericsson is correct in contending that appreciation of the invention's inclusion is not a requirement to trigger the statutory bar.³⁵ In *Scaltech*, the Federal Circuit found the plaintiff patent assignee had offered its process for treating oil refinery waste for sale before the critical date even though it, as the seller, may not have recognized that its process possessed the claimed characteristics. "If the process that was offered for sale inherently possessed each of the claim limitations, then the process was on sale, whether or not the seller recognized that this process possessed the claimed characteristics."³⁶ In *Ferag*, a post-*Pfaff* case utilizing the now retired "totality of circumstances" test, the Federal Circuit invalidated a patent for a conveyer apparatus for printed products, even though the purchasing newspaper publisher allegedly did not know the sale would encompass the patent invention. The court found important the policy behind the on-sale bar:

[T]he overriding focus of section 102(b) is preventing investors from reaping the benefits of the patent system beyond the statutory term. Accordingly, while what an offer or sale discloses to the public may tend to show whether the invention was on sale, the question is not whether the public knew of the invention, but whether the product sold or offered embodies the invention claimed. Indeed, an offer or sale may invoke the statutory bar 'even though no details are disclosed.' Here, we have no doubt that [the plaintiff] did attempt to commercialize its invention [], well before

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45 F.3d 1562 (Fed. Cir. 1995).

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269 F.3d 1321, 1328-29 (Fed. Cir. 2001).

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Id.

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Id. at 329.

the critical date.³⁷

The Court finds neither *Scaltech* nor *Ferag* controlling on the offer of sale issue. Harris contends that the decision to include the '732 synchronization was not made until after the critical date, in October 1983 at the earliest, not because it failed to appreciate what was already evident in its plan to build the CECOM modem, but because it, at this time, lacked the understanding necessary to include the synchronization ultimately reflected in the '732 Patent. Harris maintains it specifically modified its initial plan for the CECOM modem to include synchronization techniques not originally configured. If true, Harris thus differentiates its situation from those in *Scaltech* and *Ferag*. In *Scaltech*, the plaintiff offered its improved process for treating oil refinery waste for sale before the critical date even though it may not have recognized the workings of its invention or its full potential until after the critical date. *Ferag* stressed the objective nature of the "offer" part of the on-sale bar test. Although the initial offer did not indicate the seller planned to include the patented invention, the purchaser did not have any reason to know what design would be supplied. Further, the seller decided, pre-critical date, to supply the relevant invention. The court also noted the existence of a pre-critical date sales document, which indicated that the invention would be supplied and characterized the situation as an attempt by the plaintiff to commercialize its invention before the critical date.³⁸

Here, the contract between the U.S. Army CECOM and Harris is not as clear. It is largely undisputed that, prior to the critical date, Harris contracted to sell an HF modem (the CECOM modem) and that modem was delivered, after the critical date, with technology later made the

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Ferag, 45 F.3d at 1568.

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Id. at 1568.

subject of the '732 patent. However, Ericsson did not show, by clear and convincing evidence, that this sale falls within the on-sale bar. The Quarterly Reports lend credence to Harris's contention that sometime in or about October 1983, a decision was made to include the synchronization used in the '732. While Ericsson contends that the Reports only indicate changes *in addition to*, rather than *in place of*, the initial plan, genuine issues regarding that fact remain. From a public policy perspective, setting a premature date when the inventor should apply for a patent by finding an ambiguous circumstance to constitute a commercial offer for sale would tend to diminish clarity.³⁹ Recent Federal Circuit case law undercuts previous flexible standards applicable to the on-sale bar, and requires more definiteness on the "offer" prong than is presented on these facts.⁴⁰ Whether, after the critical date, Harris designed a new "acquisition" strategy, one that went beyond mere equalization to synchronization of information, not originally contemplated by the CECOM contract, is a crucial fact question.

C. Inequitable Conduct

Patent applicants must prosecute patent applications with candor, good faith, and honesty.⁴¹ Inequitable conduct includes affirmative misrepresentations of a material fact, failures to disclose material information, or submissions of false material information, coupled with an intent to

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See Pfaff v. Wells Elec., 525 U.S. 55, 62 (1998); *Linear Technology Corp. v. Micrel, Inc.*, 275 F.3d 1040, 1048 (Fed. Cir. 2002) ("[t]he *Pfaff* Court explained that its standard is more definite and better suited to fulfill the purpose of the on-sale bar, which strives "both to protect the public's right to retain knowledge already in the public domain and the inventor's right to control whether and when he may patent his invention," by "fix[ing] a period of limitation which should be certain" within which the inventor must file his application or lose his right to a patent.") (quoting *Pfaff*, 525 U.S. at 67, and *Andrews v. Hovey*, 123 U.S. 267, 274 (1887)).

⁴⁰*Linear Technology Corp.*, 275 F.3d at 1050 (utilizing the Uniform Commercial Code and common law contract principles to determine whether an "offer" was made).

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See Molins PLC v. Textron, Inc., 48 F.3d 1172, 1178 (Fed. Cir. 1995).

deceive.⁴² The alleged infringer, seeking to invalidate the patent, whether as a defendant in a patent infringement suit or as a declaratory judgment plaintiff, must demonstrate, by clear and convincing evidence, both that the information was material and that the conduct was intended to deceive.

Intent to deceive requires a showing of a plan to mislead the patent examiner into granting the patent.⁴³ Information is material if there is a substantial likelihood that a reasonable examiner would have considered the information important in deciding whether to allow the patent to issue.⁴⁴ In prosecuting a patent, applicants are required to err on the side of disclosure, so the Patent Office can itself resolve the relevant issues.⁴⁵

Harris's Motion addressed three different instances of conduct which Ericsson claims were inequitable: (1) failure to disclose to the PTO the 1975 Van Uffelen⁴⁶ and the Pennington⁴⁷ articles;

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Id.

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Kingsdown Med. Consultants, Ltd. v. Hollister Inc., 863 F.2d 867, 876 (Fed. Cir. 1988), *cert. denied*, 490 U.S. 1067 (1989).

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Life Tech., Inc. v. Clontech Lab., Inc., 224 F.3d 1320, 1324 (Fed. Cir. 2000).

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Critikon, Inc. v. Becton Dickinson Vascular Access, Inc., 120 F.3d 1253, 1257 (Fed. Cir. 1997), *cert. denied*, 523 U.S. 1071 (1998).

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Jean Pierre Van Uffelen's 1975 article, "DESCRIPTION D'UN DISPOSITIF AUTOADATATIF POUR TRANSMISSION DE DONNEES SUR LIAISONS IONOSPHERIQUES," apparently describes certain equalization and synchronization techniques Van Uffelen worked from 1971-89 on developing communications systems while employed by TRT in France.

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J. Pennington's article, COMPARATIVE MEASUREMENTS OF PARALLEL AND SERIAL 2.4 kbps MODEMS, apparently describes a simulation technique for testing HF modems.

(2) failure to disclose certain alleged Harris prior art; and (3) failure to disclose a named inventor.⁴⁸

The Court reserved its ruling on the first instance in order to allow the parties an opportunity to file supplemental papers. The parties have supplied the Court with supplemental briefing on whether the evidence is such that a jury could possibly determine an intent to deceive on the part of LeFever and Harris with respect to non-disclosures of the Van Uffelen and Pennington articles. While LeFever was aware of the Pennington article, he testified that he did not then read the entire article, that the article does not disclose interleaving, and that he looked only to the reported results, which looked to him to be inflated and wrong. Further, while the Pennington article cites to the 1975 Van Uffelen article, LeFever testified that “[he] didn’t read [it] since it [was] in French.”

In a declaration attached to Ericsson’s supplemental papers, Van Uffelen describes the modem concept discussed in his 1975 article as “an HF modem that utilized 128 symbols of known information interleaved with unknown information for continuous synchronization and equalization.” Ericsson also emphasizes a meeting between Harris employees and Van Uffelen, in February 1986, as evidence of LeFever’s knowledge of, and familiarity with, the Van Uffelen article. During the meeting, LeFever was present and asked questions concerning the simulation technique, referenced in the Pennington article, for testing the HF modem developed at Van Uffelen’s company, TRT.

The Pennington article was attached in 1984 to Harris’s CECOM II proposal.⁴⁹ LeFever

⁴⁸As stated *supra* at footnote 2, at the hearing Ericsson conceded that failure to disclose a named inventor was not actionable on these facts.

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Ericsson discusses Harris’s draft proposals to the United States Army referencing a “French modem” that “presumably refer[s] to the Van Uffelen modem.” Harris states these proposals “may or may not have been sent to the U.S. Army at some unknown time.” This reference is far too slight to demonstrate knowledge by LeFever or Harris of the 1975 Van Uffelen article before or during the pendency of the ‘732 patent application.

testified that the reason he expressed interest at the 1986 meeting in the “testing techniques” of Pennington was because the results were better than he thought theoretically possible, and he objected to the publication of papers with such results. This evidence, if true, raises genuine fact issues on whether Ericsson can meet its burden of demonstrating that Harris had knowledge of the Van Uffelen and Pennington articles but failed to disclose them to the Patent Office with the intent to deceive. The Court is, furthermore, not prepared to find them immaterial as a matter of law. Therefore, Harris’s Motion for Summary Judgment on inequitable conduct with respect to these articles is **DENIED**.

D. Anticipation by the Walsh Patent and the Mills Article

The Walsh patent⁵⁰ teaches transmission of a training sequence, which is known data, followed by the information being transmitted, which is unknown data. The predetermined sequence is known data, followed by unknown data, followed by a gap, followed by known data followed by unknown, and so on. The Walsh patent explains that it is directed only to “preamble synchronization” or a “training sequence” inserted in the data only once, at the initialization stage. The Walsh Patent thus does not meet the limitation of Claim 1.

The Walsh Patent can be further distinguished from the ‘732 patent’s claim 1. Ericsson argues that interleaving is found in the Walsh Patent because after the training sequence, unknown data follows and will continue until the call ends, at which time no data is transmitted. The next call again initiates a new known training sequence. This misconstrues “interleaving” as defined by Special Master Peterson.

“Interleaving” was construed as it was in the ‘338 patent, as “transmitting a block of known

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Dale M. Walsh, Synchronization of a Data Communication Receiver with a Received Signal,” U.S. Patent No. 4,290,139, filed Dec. 22, 1978.

signals followed by a block of unknown (ie. information) signals followed by a block of known signals.” This meaning is not restricted to blocks that are sequentially transmitted without gaps between those blocks. However, the gaps in the Walsh Patent, described by Ericsson as unspecified lengths of time before which another known sequence could be present, do not fit within the parameters of the ‘732 claims. These irregular gaps contrast with the “predetermined” distribution present in the ‘732, where “signals received thereby [must] contain successive data symbols between which are interleaved sequences of prescribed known symbols, the distribution of said interleaved sequences of said known symbols among said data symbols being *predetermined*.” Gaps for an unspecified length of time would not allow these symbols to be predetermined.

Additionally, Harris argues that the Mills article does not use interleaving as described by the Special Master.⁵¹ For interleaving to be present, there must be at least one sequence of known, unknown, known. The only “known” sequence disclosed in the Mills article is the “sequence of synchronizing signals” sent during the initialization phase. This single known sequence does not fit the limitation of claim 1, as described by the Special Master. Harris is entitled to summary judgment that the Mills article and the Walsh patent do not anticipate the ‘732 Patent.

CONCLUSION

Ericsson’s Motion to Strike Harris’s Newly Presented Evidence on the CECOM On-Sale Bar and to Enter Summary Judgment of Invalidity on the Harris Patent No. 4,599,732 and Harris’s Motion for Partial Summary Judgment that it did not engage in inequitable conduct by not disclosing the Van Uffelen and Pennington articles, are hereby **DENIED**. Harris’s Motion for Partial Summary Judgment that the Mills article and Walsh Patent do not anticipate the ‘732 Patent is

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W. C. Mills, et al., *A Microprocessor Based High Speed Modem*, colloquium on *A Review of Modern Techniques*, January 14, 1981.

hereby **GRANTED**.

SO ORDERED.

March 26, 2002.

A handwritten signature in black ink, appearing to read "Barbara M. G. Lynn". The signature is written in a cursive style with a long horizontal flourish extending to the right.

BARBARA M. G. LYNN
UNITED STATES DISTRICT JUDGE
NORTHERN DISTRICT OF TEXAS