Chicago Mercantile Exchange Inc. et al v. Garber Doc. 261

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UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

CHICAGO MERCANTILE EXCHANGE, INC. and BOARD OF TRADE OF THE CITY OF CHICAGO, INC.,	)	
Plaintiffs/Counterclaim Defendants,	)	
v.	)	**No. 09 C 3895**
TECHNOLOGY RESEARCH GROUP, LLC,	)	**Judge Ruben Castillo**
Defendant/Counterclaim Plaintiff,	)	
v.	)	
CME GROUP, INC.,	)	
Counterclaim Defendant.	)	

MEMORANDUM OPINION AND ORDER

Chicago Mercantile Exchange, Inc. ("CMEI") and the Board of Trade of the City of Chicago ("CBOT") (collectively, "Plaintiffs") filed this patent action against Technology Research Group, LLC ("TRG"), seeking declaratory judgment pursuant to the Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.* (R. 121, Second Am. Compl.) Specifically, Plaintiffs seek a declaration that United States Patent No. 5,963,923 ("'923 patent") is invalid and unenforceable. (*Id.* ¶¶ 37-88.) Additionally, Plaintiffs seek a declaration that they have not directly or indirectly infringed the '923 patent. (*Id.* ¶¶ 27-39.) TRG has also filed a patent infringement counterclaim against Plaintiffs and CME Group, Inc. ("CMEG") (collectively, "CME"). (R. 47, TRG's Am. Countercl.) Presently before the Court is CME's motion for

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summary judgment of invalidity of all asserted claims of the '923 patent. (R. 152, CME's Mot.) For the reasons stated below, the motion is denied.

BACKGROUND[1]

I. Parties

CMEI is a financial and commodity derivatives exchange, while CBOT operates an exchange that deals in commodity futures and options on futures. CMEG is a holding company that was created in 2007 from the merger between CMEI and CBOT. (R. 196, TRG's Resp. to CME's N.D. Ill. L.R. 56.1 Statement ¶ 4.) TRG purports to be the owner of all right, title, and interest in the '923 patent, which was originally obtained by Howard B. Garber ("Garber").[2]

II. GLOBEX 1

In June 1992, CMEI launched GLOBEX 1, an electronic trading platform for commodity options and futures contracts. (*Id.* ¶ 12.) The GLOBEX 1 trading platform consisted of trader terminals that were coupled to a central host system through a high speed communications network. (*Id.* ¶ 13.) Each GLOBEX 1 terminal included a keyboard, videomonitor, and printer. (*Id.* ¶ 14.) By November 1994, hundreds of terminals were connected to the GLOBEX 1 platform and over one thousand individuals were authorized to operate these terminals. (*Id.* ¶ 17.) The GLOBEX 1 terminals were located in various places throughout the world. (*Id.* ¶ 18.)

Orders entered on the GLOBEX 1 terminals were routed to the central host system for

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[1] The Court takes the undisputed facts from the Local Rule 56.1 Statements submitted by the parties.

[2] Garber was originally named as a defendant in this action. (R. 19, Am. Compl.) On August 21, 2009, he was dismissed and TRG was substituted as a party-defendant. (R. 30, Min. Entry.) All right, title, and interest in the '923 patent was transferred to TRG in July 2009. (*See* R. 27, Stipulation and Joint Mot. for Substitution of Party.)

execution. (*Id.* ¶ 15.) Orders that could not be executed automatically were placed in a "book" of open orders. (*Id.* ¶ 16.) In accordance with CME Rule 530, GLOBEX 1 terminal operators were required to enter customer orders before entering personal or proprietary orders. (*Id.* ¶ 19.) From its inception, GLOBEX 1 had a market maker program for both options and futures contracts. (*Id.* ¶ 20.) According to CME, under the terms and conditions of the GLOBEX 1 program, market makers agreed to post two-sided markets in their designated products for the entire GLOBEX trading session.[3] (*Id.* ¶ 21.) Although they did not receive priority volume benefits, market makers on GLOBEX 1 received various forms of compensation, including fee waivers and monthly stipends. (*Id.* ¶ 24.)

III. CMEI's PMM program

CMEI announced the principal market maker ("PMM") program to its members on September 19, 1994. (*Id.* ¶ 53.) In 1995, the Commodity Futures Trading Commission ("CFTC") approved the CMEI's PMM program. (*Id.* ¶ 47.) After its approval, the PMM program's rules were described in printed publications. (*Id.* ¶ 48.) The PMM program was promulgated as CME Rule 556. (*Id.* ¶ 54.)

Under the CMEI's PMM program, a principal market maker was required to (1) continuously maintain a two-sided market; (2) maintain a public order book; and (3) give priority to customer order execution over personal trading. (*Id.* ¶ 56.) As compensation for fulfilling these responsibilities, the principal market maker under the terms of the CMEI's PMM program received priority volume benefits. (*Id.* ¶ 57.) A principal market maker under the CMEI's PMM program was also responsible for "receiving and executing commodity purchase and sale, trades

[3] In its response to CME's Local Rule 56.1 statement, TRG disputes this fact. (*Id.*)

and orders." (*Id.* ¶ 58.)

IV. '923 patent

On October 5, 1999, the '923 patent was issued. In the present litigation, TRG is only asserting claims 9-11 of the '923 patent. (*Id.* ¶ 11.) Claims 9-11 of the '923 patent claim:

> 9. A principal market maker system for trading commodities, comprising:
> a principal market maker futures computer operative to receive and automatically execute primary commodity purchase and sale trades and orders and maintain a commodity futures bid and offer market;
>
> a principal market maker options computer operative to receive and automatically execute secondary commodity purchase and sale trades and orders and maintain a commodity options bid and offer market; and
>
> a bi-directional communications link coupled between the futures and options computers, the bi-directional communications link to facilitate intermarket trading to manage risk taken in a position resulting from a trade in either market.
>
> 10. An electronic market for trading commodities, comprising:
> a communications interface operative to transmit commodity bids and offers from at least one financial institution;
>
> a principal market maker computer coupled to the communications interface, the principal market maker computer operative to receive the commodity bids and offers and execute trades to maintain a market for commodity trades; and
>
> a principal market maker options computer.
>
> 11. The electronic market defined in claim 10, further comprising a bi-directional communications link coupled between the options computer and the principal market maker computer.

'923 patent, col. 11, ll. 11-41.

PROCEDURAL HISTORY

On November 10, 2010, Plaintiffs filed a second amended complaint in which they request: (1) declaratory judgment of noninfringement of the '923 patent by CMEI; (2) declaratory

judgment of noninfringement of the '923 patent by CBOT; (3) declaratory judgment of invalidity of the '923 patent by CME; and (4) declaratory judgment of unenforceability of the '923 patent by CME. (R. 121, Second Am. Compl. ¶¶ 27-88.) Prior to the filing of the second amended complaint, the Court construed various portions of the '923 patent. *See Chi. Mercantile Exch., Inc. v. Tech. Research Grp., LLC*, 721 F. Supp. 2d 785 (N.D. Ill. 2010). Of importance here, the Court construed the claim term "principal market maker" as follows:

> an entity required to provide the following functions: (1) continuously maintain a two-sided bid/offer market of specified size and spread for its designated produce(s); (2) maintain a public order book with respect to these assigned products; and (3) give priority to customer order execution over personal trading. As compensation for the fulfillment of these responsibilities, this entity is to receive priority volume benefits.

Id. at 794.

In March 2011, CME filed a motion for summary judgment of invalidity of all asserted claims of the '923 patent. (R. 152, CME's Mot.) Summary judgment, CME asserts in its supporting memorandum, is appropriate for two independent reasons. First, CME argues that claims 9-11 of the '923 patent are obvious–and therefore invalid under 35 U.S.C. § 103–in view of the GLOBEX 1 trading platform. (R. 153, CME's Mem. at 5.) According to CME, GLOBEX 1 included every element of the asserted claims except that the market makers did not receive priority volume benefits. (*Id.* at 5-9.) This difference, CME continues, is not patentable because "it would have been obvious to compensate market makers on the GLOBEX 1 trading platform with priority volume benefits." (*Id.* at 11.) Second, CME contends that the asserted claims of the '923 patent are obvious in view of the CMEI's PMM program. (*Id.* at 12.) From CME's perspective, the PMM program "teaches the manual performance of each element of the asserted claims." (*Id.* at 13.) Because it would have been obvious to automate the PMM program, CME

argues that the asserted claims in the '923 patent are invalid for obviousness under 35 U.S.C. § 103. (*Id.* at 12.) Additionally, CME contends that any secondary considerations cannot "overcome a strong prima facie case of obviousness based on the prior art." (*Id.* at 14.)

LEGAL STANDARD

Summary judgment is appropriate when the record, viewed in the light most favorable to the nonmoving party, reveals that there is no genuine issue as to any material fact and the moving party is entitled to judgment as a matter of law. Fed. R. Civ. P. 56(a). In determining whether there is a genuine issue of material fact, courts must view the evidence in the light most favorable to the party opposing the motion, with doubts resolved in favor of the nonmovant. *Leggett & Platt, Inc. v. VUTek, Inc.*, 537 F.3d 1349, 1352 (Fed. Cir. 2008).

"Summary judgment is as available in patent cases as in other areas of litigation." *Tokai Corp. v. Easton Enters., Inc.*, 632 F.3d 1358, 1366 (Fed. Cir. 2011) (citation omitted). A district court can properly grant, as a matter of law, a motion for summary judgment on patent invalidity when the factual inquiries into obviousness present no genuine issue of material fact. *Id.* Where the content of the prior art, the scope of the patent claim, and the level of ordinary skill in the art are not in material dispute, and the obviousness of the claim is apparent in light of these factors, summary judgment is appropriate. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 427 (2007) ("*KSR*").

When evaluating a motion for summary judgment, a court views the record evidence through the prism of the evidentiary standard of proof that would pertain at a trial on the merits. *SRAM Corp. v. AD-II Eng'g, Inc.*, 465 F.3d 1351, 1357 (Fed. Cir. 2006) (citing *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 252-53 (1986)). Under the U.S. Patent Act, a patent enjoys a

presumption of validity which can be overcome only through facts supported by clear and convincing evidence. *Id.* (citations omitted). "Thus, a moving party seeking to invalidate a patent at summary judgment must submit such clear and convincing evidence of the facts underlying invalidity that no reasonable jury could find otherwise." *Id.* (citing *Perkin-Elmer Corp. v. Computervision Corp.*, 732 F.2d 888, 893 (Fed. Cir. 1984).

ANALYSIS

Under the U.S. Patent Act, an invention cannot be patented if "the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." 35 U.S.C. § 103(a). As mentioned above, patents are presumed to be valid. *Kao Corp. v. Unilever U.S., Inc.*, 441 F.3d 963, 968 (Fed. Cir. 2006). Although the ultimate determination of obviousness under 35 U.S.C. § 103 is a question of law, it is based on several factual findings, including: (1) the scope and content of the prior art; (2) the level of ordinary skill in the pertinent art; (3) the differences between the claimed invention and the prior art; and (4) evidence of secondary factors, such as commercial success, long-felt need, and the failure of others. *Innovention Toys, LLC v. MGA Entm't, Inc.*, No. 2010-1290, 2011 WL 941563, at *5 (Fed. Cir. Mar. 21, 2011) (citing *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966)) ("*Graham* factors"). The first three *Graham* factors are used to establish what is sometimes referred to as a prima facie case of obviousness. *See Winner Int'l Royalty Corp. v. Wang*, 202 F.3d 1340, 1350 (Fed. Cir. 2000).

Once this underlying factual background is determined by clear and convincing evidence, *Procter & Gamble Co. v. Teva Pharm. USA, Inc.*, 566 F.3d 989, 993-94 (Fed. Cir. 2009), a court must then turn to examining whether an invention would have been obvious to one of ordinary

skill in the art at the time the challenged invention was made. *See, e.g., Arkie Lures, Inc. v. Gene Larew Tackle, Inc.*, 119 F.3d 953, 957 (Fed. Cir. 1997). Seeking to resolve the question of obviousness with more uniformity and consistency, the Federal Circuit has employed an approach that is commonly referred to as the "teaching, suggestion, or motivation" ("TSM") test. *KSR*, 550 U.S. at 407. Under this test, a patent claim is only proved obvious if "'some motivation or suggestion to combine the prior art teachings' can be found in the prior art, the nature of the problem, or the knowledge of a person having ordinary skill in the art." *Id.*

In *KSR*, the Supreme Court clarified that the TSM test should not be reduced to a rigid formula. A few of the Supreme Court's specific observations warrant mention. First, the TSM test "need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ." *Id.* at 418. Second, the Supreme Court noted that when "a work is available in one field of the endeavor, design incentives and other market forces can prompt variations of it, either in the same field or in a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability." *Id.* at 417. Third, it also observed that it will often be "necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue." *Id.* at 418. Finally, the Supreme Court stated that where "there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to pursue the known options

within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense. In that instance the fact that a combination was obvious to try might show that it was obvious under § 103." *Id.* at 421.

With this general background in mind, the Court now turns to considering the applicable legal principles.

I. *Graham* factors

A. Scope and content of the prior art

"The teachings of prior art references are underlying factual questions in the obviousness inquiry." *In re Kubin*, 561 F.3d 1351, 1355 (Fed. Cir. 2009). Here, the parties present a number of prior art references that appear to be relevant to the obviousness inquiry. First, as alluded to above, CME contends that the GLOBEX 1 trading platform and CMEI's PMM program are both relevant pieces of prior art. Given the Court's prior summary of both, no further description of these pieces of prior art is necessary. In addition to the GLOBEX 1 trading platform and the CMEI's PMM program, CME also suggests that the Chicago Board Options Exchange's ("CBOE") Designated Primary Market Maker ("DPMM") program and the Pacific Stock Exchange's ("PSE") Lead Market Maker ("LMM") program are also pieces of relevant prior art.[4] (R. 153, CME's Mem. at 10.) According to CME, the DPMM and the LMM establish that priority volume benefits were a well-known mechanism for compensating market makers. (*Id.* at 10.)

As noted above, CME argues that claims 9-11 of the '923 patent are obvious and invalid in view of the GLOBEX 1 trading platform and other prior art. (*Id.* at 5.) According to CME,

[4] TRG does not explicitly challenge CME's assertion that the DPMM and LMM programs are properly considered prior art. (*See* R. 196, TRG's Mem.)

GLOBEX 1 included every element of the asserted claims except that its market makers did not receive priority volume benefits. (*Id.* at 5-9.) The addition of this incentive, CME concludes, would have been obvious in light of the prior art. (*Id.* at 11.) In response, TRG contends that summary judgment is inappropriate because factual disputes exist about the scope and content of the GLOBEX 1 system. (R. 196, TRG's Mem. at 3-7.) Specifically, TRG asserts that the GLOBEX 1 platform did not, as required by the Court's claim construction, continuously maintain a market. (*Id.* at 5-7.) To support this contention, TRG points to various portions of the record which suggest that rather than providing a continuous market, the GLOBEX 1 platform was an "informal" program that depended on the "best efforts" of market makers in posting bids and offers. (*See, e.g.*, R. 196, TRG's Resp. to CME's N.D. Ill. L.R. 56.1 Statement, Ex. 3 at CME0119935; Ex. 6 at CME0119929.) CME, on the other hand, points to portions of the record suggesting that the GLOBEX 1 platform did continuously maintain a market. (*See, e.g.*, R. 159., CME's Summ. J. R, Ex. L.) Given this genuine dispute regarding the scope and content of an important piece of prior art, CME's first argument in support of its motion does not convince the Court that summary judgment is proper. *See Source Search Tech., LLC v Lendingtree, LLC*, 588 F.3d 1063, 1073 (Fed. Cir. 2009) (concluding that genuine issues of material fact related to the scope of prior art references prevent a grant of summary judgment).

B. The level of ordinary skill in the pertinent art

A determination of obviousness also requires a factual finding of the level of ordinary skill in the art. *Innovention*, 2011 WL 941563, at *8. The level of ordinary skill in the pertinent art is a prism or lens through which a judge or jury views the prior art and the claimed invention. *Al-Site Corp. v. VSI Int'l*, 174 F.3d 1308, 1324 (Fed. Cir. 1999). "This reference point prevents

these deciders from using their own insight or, worse yet, hindsight, to gauge obviousness." *Id.* Factors that may be considered in determining the ordinary level of skill in the art include: (1) the types of problems encountered in the art; (2) the prior art solutions to those problems; (3) the rapidity with which innovations are made; (4) the sophistication of the technology; and (5) the educational level of active workers in the field. *Ruiz v. A.B. Chance Co.*, 234 F.3d 654, 666-67 (Fed. Cir. 2000). Once this integral factual finding is made (along with those related to the other *Graham* factors), a court must generally take the following perspective:

> With the involved facts determined, the decisionmaker confronts a ghost, i.e., "a person having ordinary skill in the art," not unlike the "reasonable man" and other ghosts in the law. To reach a proper conclusion under § 103, the decisionmaker must step backward in time and into the shoes worn by that "person" when the invention was unknown and just before it was made. In light of *all* the evidence, the decisionmaker must then determine whether the patent challenger has convincingly established, 35 U.S.C. § 282, that the claimed invention as a whole would have been obvious at *that* time to *that* person.

Panduit Corp. v. Dennison Mfg. Co., 810 F.2d 1561, 1566 (Fed. Cir. 1987) (Markey, J.).

Given that the parties have failed to point to any evidence regarding the level of ordinary skill in the pertinent art, undertaking the required analysis at this stage is difficult. Specifically, the Court notes that CME has failed to indicate what the level of ordinary skill in the art was at the relevant point in time. (*See* R. 153, CME's Mem.; R. 157, CME's N.D. Ill. L.R. 56.1 Statement.) At summary judgment, it is CME's burden to identify the portions of the record which it believes demonstrates the absence of a genuine issue of material fact and which entitle it to judgment as a matter of law. *Shum v. Intel Corp.*, 633 F.3d 1067, 1076 (Fed. Cir. 2010). Because CME has failed to carry its burden, the Court concludes that neither of CME's arguments can serve as the basis for granting summary judgment in its favor.

C. The differences between the claimed invention and the prior art

Some of the differences between the prior art and the asserted claims of the '923 patent do not appear to be in dispute. For example, it is undisputed that, unlike the GLOBEX 1 platform, claims 9-11 in the '923 patent did provide priority volume benefits. It also appears to be undisputed that the CMEI's PMM program and the '923 patent's asserted claims differed in that the latter involved an automated system, while the former did not. The differences between the claimed invention and the prior, however, are not entirely undisputed. As previously noted, the parties dispute whether the GLOBEX 1 trading platform actually continuously maintained a market. Because of the factual disputes regarding the scope and content of prior art, and, relatedly, the differences between the claimed invention and the prior art, summary judgment on the first ground that CME has presented is inappropriate. *See Source Search*, 588 F.3d at 1073 (finding that genuine issues of material fact related to the differences between the claimed invention and prior art precluded a grant of summary judgment).

D. Secondary factors

The final underlying factual issue in the obviousness determination is objective evidence of nonobviousness, *i.e.*, secondary considerations. *WMS Gaming, Inc. v. Int'l Game Tech.*, 184 F.3d 1339, 1359 (Fed. Cir. 1999) (citing *Graham*, 383 U.S. at 17-18). Objective evidence of nonobviousness may include commercial success and long-felt but unsolved need. *Id.* (citation omitted). Additionally, the failure of others, skepticism or disbelief before the invention, praise, copying, and industry acceptance are also relevant secondary considerations. *Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, 229 F.3d 1120, 1129 (Fed. Cir. 2000). Secondary considerations may often establish that an invention appearing to have been obvious in light of the prior art was not. *Crocs, Inc. v. Int'l Trade Comm'n*, 598 F.3d 1294, 1310 (Fed.

Cir. 2010) (quoting *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1538 (Fed. Cir. 1983)). "This evidence is not just a cumulative or confirmatory part of the obviousness calculus but constitutes independent evidence of nonobviousness." *Id.* (quoting *Ortho-McNeil Pharm., Inc. v. Mylan Labs., Inc.*, 520 F.3d 1358, 1365 (Fed. Cir. 2008)).

The objective evidence of nonobviousness may be used to rebut a prima facie case of obviousness based on prior art references. *WMS Gaming*, 184 F.3d at 1359. Weak secondary considerations, however, generally do not overcome a strong prima facie case of obviousness. *W. Union Co. v. MoneyGram Payment Sys., Inc.*, 626 F.3d 1361, 1373 (Fed. Cir. 2010). The patentee bears the burden of showing that a nexus exists between the claimed features of the invention and the objective evidence offered to show nonobviousness. *WMS Gaming*, 184 F.3d at 1359 (citing *Cable Elec. Prods., Inc. v. Genmark, Inc.*, 770 F.2d 1015, 1027 (Fed. Cir. 1985)).

Here, TRG argues that the following secondary considerations must be considered: (1) a long-felt need to develop liquidity at commodities exchanges; (2) prior failures in developing liquidity at commodities exchanges; (3) industry skepticism regarding the invention claimed by the '923 patent; (4) praise for the system claimed by the '923 patent; (5) the commercial success experienced by the claimed system; and (6) other exchanges copying priority volume market maker programs for electronic systems. (R. 196, TRG's Mem. at 12-15.) In its reply, CME contends that because TRG has failed to establish a nexus between these secondary factors and the claimed invention, these secondary factors are irrelevant to the Court's obviousness analysis. (R. 226, CME's Reply at 14.)

At this stage, the Court need not consider the secondary considerations presented by TRG. Because CME has failed to establish the underlying facts necessary to make out a prima

facie case of obviousness, the Court will refrain from considering secondary factors of obviousness. *Cf. Winner*, 202 F.3d at 1350 (finding that where a party challenging a patent as obvious failed to establish a prima facie case of obviousness, patentee was not required to establish objective indicia of nonobviousness).

With this discussion of the *Graham* factors complete, the Court moves on to briefly addressing the TSM test.

II. TSM test

"The obviousness of a patented invention is determined by applying the law of 35 U.S.C. § 103 to findings of fact relating to the scope and content of the prior art, the differences between the claimed invention and the prior art, and the level of ordinary skill in the art. *Glaverbel Societe Anonyme v. Northlake Mktg. & Supply, Inc.*, 45 F.3d 1550, 1555 (Fed. Cir. 1995) (citing *Graham*, 383 U.S. at 17). As mentioned above, the law of obviousness is governed by the Federal Circuit's TSM test. *KSR*, 550 U.S. at 407. Under this test, a patent claim is only proved obvious if "'some motivation or suggestion to combine the prior art teachings' can be found in the prior art, the nature of the problem, or the knowledge of a person having ordinary skill in the art." *Id.*

In deciding whether a patent is obvious, the critical question a decisionmaker must answer is "whether the invention as a whole would have been obvious to one of ordinary skill in the art at the time it was made." *Perkin-Elmer Corp.*, 732 F.2d at 894. Here, the Court is unable to make the legal determination regarding the obviousness of the asserted claims because of the aforementioned uncertainties surrounding the *Graham* factors. Without the necessary factual background, the Court cannot conclude that the asserted claims of the '923 patent are invalid as a

matter of law.

CONCLUSION

For the reasons stated above, CME's motion for summary judgment of invalidity of all asserted claims of the '923 patent (R. 152) is DENIED.

Entered:

Judge Ruben Castillo
United States District Court

Dated: May 10, 2011