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IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA

ORACLE AMERICA, INC.,
Plaintiff,

v.

GOOGLE INC.,
Defendant.

No. C 10-03561 WHA

**ORDER GRANTING IN PART
AND DENYING IN PART
GOOGLE'S MOTION IN
LIMINE NUMBER THREE TO
EXCLUDE PORTIONS OF
DR. COCKBURN'S REVISED
DAMAGES REPORT**

INTRODUCTION

In this patent and copyright infringement action involving Java and Android, defendant challenges plaintiff's revised expert damages report. For the following reasons, the motion is **GRANTED IN PART** and **DENIED IN PART**.

STATEMENT

The background was set forth in previous orders (*see* Dkt. Nos. 137, 230, 433). A July 22 order rejected Dr. Cockburn's first damages report for failing to apportion the value of the asserted claims and instead using the total value of Java and Android in calculating damages, among other reasons (Dkt. No. 230).

In his substitute damages report, Dr. Cockburn calculated damages in total, through the end of 2012, to be approximately two and a half billion dollars. This was broken down as follows. He estimated damages from 2007 through 2011, to be \$201.8 million for patent infringement, \$823.9 million in unjust enrichment for copyright infringement (not deducting for expenses or apportionment), and \$136.2 million in lost profits or \$102.6 million in lost licensing

1 fees for copyright infringement (Cockburn Report ¶¶ 47, 467, 496, and 474; Exhs. 3, 22, 23).

2 Dr. Cockburn calculated patent damages using a hypothetical negotiation method: as had
3 been suggested in a prior order, he began with a \$100 million starting value that was based on a
4 real-world negotiation between the parties in 2006. He then adjusted downward for patent
5 apportionment, then adjusted upward for lost revenue that was expected from the licensing
6 agreement (Rpt ¶ 19). The same methodology was used to calculate a hypothetical lost license
7 fee for copyright infringement (Rpt Exhs. 23–24). Unjust enrichment was calculated by adding
8 together Android’s ad revenue, the hardware revenue from selling Nexus phones, and applications
9 sales in the Android Market store (Rpt ¶ 466). Lost profits were calculated by adding together
10 lost revenue from licensing Java, ancillary revenue from back-end services, and revenue from a
11 smartphone operating system (Rpt ¶ 475). Using similar methodology, Dr. Cockburn also
12 estimated future damages through the end of 2012 to be \$1.2 billion in unjust enrichment for
13 copyright infringement, \$102.6 million in lost license fees for copyright infringement, and \$205.2
14 million for patent damages (Cockburn Rpt Exhs. 22, 25, 18). Again, the grand total came to
15 approximately two and a half billion dollars.

16 Following motion practice directed at the new substitute report, a tentative order issued on
17 December 6, 2011 (Dkt. No. 642). Parties submitted critiques of the tentative order (Dkt.
18 Nos. 651, 652), and arguments were heard at the final pretrial conference on December 21, 2011.
19 Post-hearing briefs and responses were submitted on January 5 and 9. This order is the final order
20 and it strikes major portions of the substitute report.

21 ANALYSIS

22 An expert witness may provide opinion testimony “if (1) the testimony is based upon
23 sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3)
24 the witness has applied the principles and methods reliably to the facts of the case.” FRE 702.
25 District courts thus “are charged with a ‘gatekeeping role,’ the objective of which is to ensure that
26 expert testimony admitted into evidence is both reliable and relevant.” *Sundance, Inc. v.*
27 *DeMonte Fabricating Ltd.*, 550 F.3d 1356, 1360 (Fed. Cir. 2008).

28

1 Google raises several objections to Dr. Cockburn’s report. Each of Google’s arguments
2 will be addressed below.

3 **1. COPYRIGHT LOST LICENSE FEE.**

4 Dr. Cockburn calculated actual damages for copyright infringement using the lost license
5 fee approach. He did so by determining what Google would have paid to license the use of the
6 copyrights at issue in a hypothetical negotiation with Sun at the time of infringement. Google
7 now argues that the hypothetical negotiation approach cannot be used to calculate the lost
8 licensee fee. Google contends that any hypothetical negotiation would be excessively speculative
9 under *Daubert* because Sun never licensed an incompatible version of Java to competitors, and
10 would not have done so with Google at the time of infringement. Therefore any calculation of
11 actual damages based on a hypothetical negotiation must be excessively speculative (Br. 4, Supp.
12 Br. 11–14). This order disagrees.

13 In the context of copyright infringement, the hypothetical lost license fee can be based on
14 the fair market value of the copyright at the time of infringement. *Polar Bear Productions, Inc. v.*
15 *Timex Corp.*, 384 F.3d 700, 709 (9th Cir. 2004). “To determine the work’s ‘market value’ at the
16 time of the infringement, we have endorsed a hypothetical approach: what a willing buyer would
17 have been reasonably required to pay to a willing seller for the owner’s work.” *Mackie v. Rieser*,
18 296 F.3d 909, 917 (9th Cir. 2002) (citations omitted). This standard is similar, if not the same, as
19 the standard for calculating a reasonable royalty in the context of patent damages. For a
20 reasonable royalty for patent infringement, the hypothetical negotiation also requires the court to
21 envision the terms of a licensing agreement reached as the result of a supposed meeting between
22 the patentee and the infringer at the time infringement began. *Rite-Hite Corp. v. Kelley Co., Inc.*,
23 56 F.3d 1538, 1554 (Fed. Cir. 1995).

24 Google argues that because Sun never licensed its Java copyrights in agreements that also
25 allowed the licensee to develop an incompatible version of Java, any calculation of the
26 hypothetical lost license fee would be incurably speculative under *Daubert*. This argument fights
27 the hypothetical. In order to calculate the lost licensing fee, the hypothetical licensing agreement
28 must be *reached* as the result of a hypothetical meeting between the parties. *See Rite-Hite Corp.*,

1 56 F.3d at 1554 (patent reasonable royalty). Although our court of appeals has not explicitly held
2 so, the Second Circuit has held that whether the parties might in fact have negotiated is irrelevant
3 to the purpose of the lost licensing fee calculation for copyright damages. *On Davis v. The Gap,*
4 *Inc.*, 246 F.3d 152, 171–72 (2nd Cir. 2001). The hypothetical negotiation is only a means for
5 calculating the fair market value. It is the fair market value that must not be speculative
6 under *Daubert*.

7 Dr. Cockburn had a non-speculative factual basis to value a license for an incompatible
8 version of Java. Dr. Cockburn did so by starting with the real-world negotiations between Sun
9 and Google for a compatible Java, and then adjusting that amount up to compensate for the
10 incompatibility. The amount of the upward adjustment was based on Sun’s own revenue
11 projections at the time for the value of compatibility. Dr. Cockburn’s calculation was sufficiently
12 based on real-world facts. This calculation was not speculative under *Daubert*. Google’s
13 objections are overruled.

14 **2. STARTING POINT OF \$100 MILLION.**

15 For both copyright lost license fee and patent reasonable royalty calculations, Google
16 argues that Dr. Cockburn erred by using \$100 million as his starting point for the hypothetical
17 negotiation instead of \$28 million, which was the amount in a draft agreement proposed by Sun
18 dated April 19, 2006, for a “broad technology partnership” between the parties (Br. 2). This
19 order disagrees.

20 Dr. Cockburn’s decision not to use the \$28 million draft agreement as the starting point
21 was within the bounds of reason, although a jury may eventually reject the premise and therefore
22 everything that depends from it. Contrary to Google’s assertion that Dr. Cockburn ignored the
23 agreement, he actually addressed it over two pages in his report (Rpt ¶¶ 211–16). Dr. Cockburn
24 opined that important terms of the \$28 million draft agreement were still being negotiated
25 (Rpt ¶ 212). As a factual basis for his opinion that terms were not finalized, Dr. Cockburn cited
26 the “Go To Market Plan” section of the agreement, which had the following text: “*Need to*
27 *discuss. We propose agreement to the price in return for Sun’s hosting & ISV leadership*”
28 (Rpt ¶ 211) (emphasis added). Dr. Cockburn also cited emails from Sun executives suggesting

1 that management had not decided on the final terms of the agreement (Rpt ¶¶ 213–16). Google
2 has not rebutted those citations. Having reviewed the available record, this order finds that
3 Dr. Cockburn reasonably relied on sufficient facts when rejecting the \$28 million draft agreement
4 as a starting point. This does not, of course, mean reasonable experts could not have honest
5 differences of professional opinion on this point and it will be up to the jury to reach its own
6 judgment after hearing both opinions.

7 This order also finds that Dr. Cockburn did not err in using \$100 million as the starting
8 point. Dr. Cockburn extensively reviewed the entire licensing history between the parties
9 (Rpt ¶¶ 191–221). The \$100 million offer was actually on the table during real-world
10 negotiations between Google and Sun in February and April 2006 (Rpt ¶¶ 196, 207).
11 Dr. Cockburn decided on a \$100 million fee for “a worldwide [Java] license” (Rpt ¶ 228).
12 Although not entirely clear from Dr. Cockburn’s report, this license would likely have included
13 “all Sun owned CD JavaME technologies, unencumbered rights” and “engineering and back-end
14 support and services,” and “joint promotion of the Java brand” (Rpt ¶¶ 230–31). Dr. Cockburn
15 also opined that this \$100 million amount would have been structured as \$60 million in fixed
16 payments and the remainder as ad-revenue sharing (Rpt. Exh. 14). This deal was very similar to
17 the opening draft agreement by the parties in February 2006, and could reasonably be the basis
18 for a hypothetical negotiation. Google’s arguments must be directed to the jury.

19 3. UPWARD ADJUSTMENT OF THE STARTING POINT.

20 For both copyright lost license fee and patent reasonable royalty calculations,
21 Dr. Cockburn adjusted his starting point upward to account for lost conveyed sales that was
22 expected from real-world negotiations (Rpt Exh. 3). Google argues that this upward adjustment
23 was speculative because Dr. Cockburn relied on “a single internal Sun presentation that roughly
24 sketch[ed] a projection of the money Sun might earn from a partnership with Google,” (Br. 5).
25 Google argues that this presentation reflected “Sun’s optimistic hope, without any grounding in
26 experience or past practice, that it might be able to earn money by partnering with Google”
27 (Br. 5); and that Dr. Cockburn improperly ignored the fact that this would have been a new line of
28

1 business, he did not vet the reliability of the projections with anyone at Oracle, and he did not see
2 any other documents to support the lost-profits projection (Br. 10).

3 A patent owner may be able to recover directly for loss of collateral sales on a lost-profits
4 theory. But lost convoyed sales also remain relevant to a reasonable royalty even where the
5 patent owner’s proof is insufficient to show lost profit. *Georgia-Pacific Corp. v. United States*
6 *Plywood Corp.*, 318 F. Supp. 1116, 1121, 1128–1130 (S.D.N.Y. 1970); *see also Rite-Hite Corp.*
7 *v. Kelley Co., Inc.*, 56 F.3d 1538, 1554–55 (Fed. Cir. 1995) (same).

8 Dr. Cockburn based his upward adjustment on three factors: *first*, “harm to Sun, in the
9 form of foregone licensing revenues and convoyed sales that Sun expected to generate pursuant
10 to” licensing its technology to Google; *second*, “the effect of fragmentation on non-mobile Java
11 revenues portended by [alleged] infringement;” and *third*, a “litigation premium” reflecting the
12 fact that the hypothetical negotiation must assume that the patents are valid and infringed
13 (Rpt ¶¶ 35–40). Although noting that the harm from fragmentation would have been great,
14 Dr. Cockburn opined that only lost convoyed sales had a reasonably certain value (*ibid.*;
15 Cockburn Dep. at 176:12–16).

16 This upward adjustment was not improper under *Daubert*. From the parties’ discussions
17 during the 2006 negotiations and Sun’s business model, it was clear that Sun expected convoyed
18 sales after licensing a compatible version of Java to Google. Sun’s expectations were catalogued
19 qualitatively in a variety of documents (*see, e.g.*, Rpt ¶¶ 297–99) and quantitatively in financial
20 projections (Rpt ¶¶ 298–302; Purcell Exhs. 18–19). The jury could reasonably find that Google’s
21 infringement led to an Android that was *incompatible* with Java and precluded Sun from
22 receiving convoyed sales “through licensing royalty bearing commercial implementations, using
23 TCK licenses to maintain the integrity of the Java platform, and providing backend services and
24 potentially other revenue opportunities” (Rpt ¶ 288). If so, then the hypothetical negotiation
25 should take that lost revenue into account and upwardly adjust the licensing fee Sun would have
26 required to license an incompatible version of Java. Dr. Cockburn had a sufficient factual basis
27 for this calculation to allow it to be in play before the jury.
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1 While the amount of adjustment involves an element of uncertainty, Dr. Cockburn’s
2 quantitative analysis was based on sufficiently reliable financial projections. The Federal Circuit
3 has upheld a hypothetical royalty based on a contemporaneously created business plan projecting
4 revenue. *Interactive Pictures Corp. v. Infinite Pictures, Inc.*, 274 F.3d 1371, 1385 (Fed.
5 Cir. 2001). The conveyed-sales projections were contemporaneously calculated by Kathleen
6 Knopoff, a senior director of business operations at Sun. Google does not explain why
7 Ms. Knopoff would have projected an overly optimistic amount. Google’s objections to the
8 upward adjustment are overruled.

9 **4. APPORTIONMENT OF THE STARTING VALUE AND UPWARD ADJUSTMENT.**

10 The July order stated a strong view that the patent hypothetical negotiation should use the
11 \$100 million offer in 2006 as the starting point and then make appropriate adjustments. The
12 order, however, expressly stated that it did not rule out other formats of analysis.

13 Dr. Cockburn elected to use the \$100 million offer as a starting point for both copyright
14 lost license fee and patent reasonable royalty calculations. But, this order holds, he failed to
15 apportion that \$100 million offer properly between the 26 claims in suit versus all other items in
16 the 2006 offer. He did make a stab at an apportionment but his apportionment methodology
17 was flawed.

18 His method was to review future 2008–2011 data to estimate the impact of certain features
19 in the 2008–2011 marketplace. One such feature, for example, was faster processing time. The
20 features tested were those allegedly enabled by the claims in suit. His method ran many eBay
21 transactions collected between January 2010 and June 2011 through a statistical analysis and
22 estimated the importance of the feature to consumers. This in turn led to an estimate of the extent
23 to which the feature contributed to 2008–2011 demand for Android. Overall, he estimated that
24 the claimed functionalities accounted for 30 percent of the overall Android revenues, that is,
25 revenues for Android would have been 30 percent less had the claimed functionalities been
26 deleted from Android. This is for the patent claims only. Another 15 percent was attributed to
27 the alleged copyright violations.
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1 Dr. Cockburn then assumed that this outcome would have been foreseeable in 2006 at the
2 time of the hypothetical negotiation and thus 30 percent of the value of the actual 2006 offer
3 should be attributed to the patent claims in suit and another 15 percent to the copyright claims in
4 suit, leaving 55 percent to be spread over the many thousands of other know-how items included
5 in the 2006 offer.

6 The main flaw in this method is that the universe of know-how included in Android
7 during 2008–2011 was different from the universe of know-how included in the 2006 offer. Put
8 differently, Android today undoubtedly represents some Java know-how, some technology owned
9 by strangers to this litigation (presumably licensed), and a fair dose of Google’s own engineering.
10 The 2006 offer, in contrast, represented thousands of Java-related features, many of which never
11 made it into Android but nonetheless would have had value. Dr. Cockburn failed to account for
12 this disconnect. For all that is shown, the thousands of other items in the 2006 offer might have
13 deserved far more than 55 percent of the total pie. Dr. Cockburn made no attempt to evaluate the
14 remainder of the items offered for license in 2006.

15 It is no answer to say, as Dr. Cockburn did in his footnote 327, that his approach is
16 “conservative.” The meaning of the turbid footnote is bewildering. It does not escape the
17 apples-and-oranges problem. While the after-the-fact studies arguably show that the claims in
18 suit eventually contributed strongly to the success of Android, and while those studies possibly
19 show that a reasonable negotiator in Google’s position in 2006 would have been willing to assign
20 a disproportionate share of the \$100 million to the claims in suit, the fact remains that the rest of
21 the 2006 bundle does not bear any relationship to the rest of the modern Android, for all the
22 record shows. Reasonable parties in 2006 might well have viewed the rest of Java as worth far
23 more than the claims conveniently selected for litigation after the fact. This order assumes
24 without deciding that the after-the-fact studies are valid enough to go to the jury.

25 If the \$100 million offer in 2006 is used as the starting point, as the July order suggested
26 (but did not require), then a fair apportionment of the \$100 million as between the technology in
27 suit and the remainder of the technology then offered must be made. One way this might be done
28 would be to divide the thousands of items into coherent groups and to evaluate the relative

1 importance of the groups and to apportion the \$100 million across the groups in proportion to
2 their relative importance. The group or groups including the 26 claims in suit would further need
3 to be apportioned as between these claims versus the rest of the group members. Other methods
4 might be viable as well. Dr. Cockburn’s method, however, does not withstand scrutiny. His
5 damages opinions on apportionment and calculations based on apportionment (including patent
6 damages and copyright lost license fee) are **STRICKEN**.

7 It is important to state that this order does not strike Dr. Cockburn’s opinion on the unjust
8 enrichment from copyright infringement. Under copyright law, the burden is on Google to
9 allocate Android profit based on the copyrights in suit versus other non-infringing contributions.
10 See 17 U.S.C. 504(b). Possibly, that allocation will substantially whittle down the claimed unjust
11 enrichment. This order does not disturb that portion of Dr. Cockburn’s opinion. Similarly, this
12 order does not disturb Dr. Cockburn’s lost profit analysis for copyright. These calculations were
13 not based on Dr. Cockburn’s apportionment and have not been challenged under *Daubert*.

14 **5. CLAIM-BY-CLAIM INSTEAD OF PATENT-BY-PATENT ANALYSIS.**

15 Google argues that Dr. Cockburn should have conducted a claim-by-claim analysis of
16 damages instead of a patent-by-patent analysis (Br. 9). As such, Google requests that Dr.
17 Cockburn be precluded from apportioning an asserted patent’s value among its claims at trial
18 (*ibid.*). This order agrees.

19 The July 22 order stated that a claim-by-claim analysis of damages was needed:
20 “determining the date of first infringement requires a claim-by-claim analysis” (Dkt. No. 230
21 at 7). There are a number of reasons. *First*, a single patent can include many distinct variations
22 of an invention, each represented by its own claim. Some may be apparatus claims. Some may
23 be method claims. A single patent may include many apparatus claims, again each represented by
24 its own claim. The same is true for methods. An infringer of one claim is compelled by law to
25 pay for a license, via the hypothetical negotiation, for the specific invention represented by that
26 claim but it is not required to pay for a license for the other specific inventions not infringed.
27 Therefore, the hypothetical negotiation must be focused only on negotiating a compulsory license
28 for each claim infringed, not for the entire patent.

1 *Second*, some of the asserted claims might be less valuable, or easier to design around,
2 than other claims contained within that same patent.

3 *Third*, the jury may find liability on some claims but not others in the same patent, or
4 some claims may be rejected by the USPTO on re-examination.

5 *Fourth*, if liability is found on a claim, it may be possible to extend the royalty rate found
6 by the jury on that claim into the future as a condition of not granting an injunction.

7 Oracle does not deny that Dr. Cockburn treated each patent as an indivisible whole (*see*
8 Rpt Exhs. 2, 4–13). It is a mystery why Oracle and Dr. Cockburn deliberately choose to disregard
9 this aspect of the July order.

10 **6. NO DIVISION OF SEPARATE COPYRIGHT CLAIMS.**

11 In a parallel manner, Google argues that Dr. Cockburn erred by not separating copyright
12 damages for the two categories of copyrighted material asserted in this action: the lines of
13 Android source code and the structure, arrangement, and selection of the Application
14 Programming Interfaces (API) packages. This order agrees.

15 Dr. Cockburn’s discussion of copyright damages focused almost entirely on the value of
16 the APIs (*see* Rpt Part XI). But if the structure, arrangement, and selection of the APIs is not
17 copyrightable or if Google engaged in fair use with respect to APIs, then Oracle’s copyright claim
18 would be limited to only a dozen code files. Dr. Cockburn has not adequately valued that code in
19 his report and cannot do so at trial. This order holds that the jury will be instructed that if Google
20 is found not liable for infringing the selection, arrangement, and structure of the API packages,
21 then Dr. Cockburn’s copyright damages analysis is inapplicable.

22 **7. INADEQUATE CALCULATION OF FUTURE DAMAGES.**

23 In the context of patent infringement, Google argues that Dr. Cockburn erred by
24 calculating future damages only for one year after past damages and not taking into account the
25 varying expiration dates of the asserted patent claims (Br. 7–8). Oracle does not deny that
26 Dr. Cockburn only calculated damages through the end of 2012 and did not calculate damages for
27 unexpired patents after that date. Nor did Dr. Cockburn calculate damages or a royalty rate past
28 the end of 2012 for copyright infringement.

1 If liability is established at trial, the jury will be asked to make a finding of the reasonable
2 royalty rate for each infringed patent claim and copyright. If an injunction is not granted, then the
3 royalty rate found by the jury will be used to award supplemental damages on a year-to-year
4 basis, this for ongoing damages after the last damages period calculated. If an injunction is
5 granted, there will be no need for future damages. Either way, Dr. Cockburn will not be allowed
6 to testify about damages after the end of 2012.

7 **8. REFERRING TO LICENSES INVOLVING UNRELATED TECHNOLOGY AND PARTIES.**

8 Google argues that Dr. Cockburn should be precluded from referring to noncomparable
9 licenses and settlements involving other companies (Supp. Br. 16). Specifically, Google seeks to
10 preclude Dr. Cockburn from testifying regarding past licenses involving Nokia, Qualcomm, and
11 Apple, and settlements between Sun and Microsoft (Br. 9–10).

12 Damages experts cannot use noncomparable licenses, with little relationship to the claimed
13 invention or parties-in-suit, as a basis for calculating reasonable royalties. *See ResQNet, Inc. v.*
14 *Lansa, Inc.*, 594 F.3d 860, 870 (Fed. Cir. 2010).

15 In his report, Dr. Cockburn cursorily discussed licenses involving Nokia, Qualcomm, and
16 Apple (Rpt ¶¶ 104–105). Other than listing the licensing amounts, Dr. Cockburn did little to
17 describe these licenses. The only description given about the technology was that the licenses
18 involved “intellectual property associated with mobile devices and services” (Rpt ¶ 104).
19 Importantly, Dr. Cockburn did not specify whether the referenced licenses related to software or
20 hardware, or how extensive the licenses were. Because there was so little information given
21 about these licenses, this order cannot see how a jury could adequately evaluate the probative
22 value of those agreements. References in Dr. Cockburn’s report to these licenses are **STRICKEN**.

23 Dr. Cockburn also referenced the settlement entered into between Sun and Microsoft
24 in 2004, under which Microsoft agreed to pay Sun over one billion dollars to settle ongoing
25 litigation and to enter into license agreements (Rpt ¶¶ 70–71). Dr. Cockburn opined that the
26 settlement exemplified the importance of compatibility to Java because Microsoft was threatening
27 to fragment the Java platform (*ibid.*).
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1 copyrights-in-suit is **STRICKEN**. Specifically, references to the \$400 million in patent damages
2 through the end of 2012 are stricken. References to the value of each patent are stricken.
3 References to copyright lost licensee fee are stricken. However, calculations of copyright unjust
4 enrichment and copyright lost profits are not stricken.

5 References to nonparty licenses and settlements are **PARTIALLY STRICKEN**. Specifically,
6 references regarding past licenses involving Nokia, Qualcomm, and Apple are stricken. The
7 litigation between Sun and Microsoft can only be used for the limited purpose of showing that
8 Sun had a policy disfavoring fragmentation.

9 Dr. Cockburn will not be able to testify about damages after the end of 2012. There was
10 nothing in his report that calculated damages past 2012. His calculations of the future values of
11 individual patents and copyrights based on apportionment are stricken. His testimony will not be
12 helpful for calculating ongoing royalties if an injunction is not granted.

13 By **JANUARY 17, 2012, AT NOON**, both parties may submit 20-page memoranda on
14 whether Dr. Cockburn should be allowed a third try. By **JANUARY 20 AT NOON**, both sides may
15 submit five-page replies.

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18 **IT IS SO ORDERED.**

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20 Dated: January 9, 2012.

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WILLIAM ALSUP
UNITED STATES DISTRICT JUDGE

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