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**UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF CALIFORNIA**

VIASAT, INC.,

Plaintiff,

vs.

SPACE SYSTEMS/LORAL, INC.,
LORAL SPACE &
COMMUNICATIONS INC.,

Defendants.

Case No. 3:12-cv-00260-H-WVG
Hon. Marilyn L. Huff

**DEFENDANTS' RULE 50
MOTION FOR JUDGMENT AS A
MATTER OF LAW ON
INVALIDITY OF THE '875 AND
'827 PATENTS**

Date: April 10, 2014
Time: 9:00 a.m.
Place: Courtroom 15A

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I. INTRODUCTION

Pursuant to Federal Rule of Civil Procedure 50, defendants Space Systems, Loral, LLC and Loral Space & Communications, Inc., ("SS/L") hereby move the Court for entry of judgment as a matter of law on invalidity of the asserted claims of the '875 and '827 patents under 35 U.S.C. §§ 102(b) and 103.

ViaSat, Inc. ("ViaSat") asserts that SS/L infringes Claim 12 of the '875 patent, and Claim 7 of the '827 patent.¹ The undisputed evidence presented at trial demonstrates that every element of the asserted claims was known and used in the prior art. Because there is no legally sufficient evidentiary basis for a reasonable jury to find that the asserted claims of the asserted patents are valid, SS/L is entitled to judgment as a matter of law.

II. LEGAL STANDARD

The "grant or denial of a motion for judgment as a matter of law is a procedural issue not unique to patent law, reviewed under the law of the regional circuit in which the appeal from the district court would usually lie." *Summit Tech, Inc. v. Nidek Co.*, 363 F.3d 1219, 1223 (Fed. Cir. 2004). "A motion for judgment as a matter of law . . . in an action tried by jury is a challenge to the legal sufficiency of the evidence supporting the jury's verdict." *Ford v. Cimarron Ins. Co.*, 230 F.3d 828, 830 (5th Cir. 2000) (internal quotations omitted). Judgment as a matter of law is appropriate when a party has been fully heard on an issue and "there is no legally sufficient evidentiary basis for a reasonable jury to have found

¹ SS/L raises by separate motion issues with respect to the inventorship of the '827 patent.

1 for that party with respect to that issue." Fed. R. Civ. P. 50(a). To avoid judgment
2 as a matter of law, the non-moving party must set forth "substantial evidence" on
3 each claim or issue. *TGIP, Inc. v. AT&T Corp.*, 527 F. Supp. 2d. 561, 569 (E.D.
4 Tex. 2007). "A mere scintilla is insufficient to present a question for the jury."
5 *Hagan v. Echostar Satellite, L.L.C.*, 529 F.3d 617, 622 (5th Cir. 2008).

6 "A patent is invalid for anticipation if a single prior art references discloses
7 each and every limitation of the claimed invention." *Schering Corp. v. Geneva*
8 *Pharms, Inc.*, 339 F.3d 1373, 1377 (Fed. Cir. 2003). A patent is obvious "if the
9 differences between the subject matter sought to be patented and the prior art are
10 such that the subject matter as a whole would have been obvious at the time the
11 invention was made to a person having ordinary skill in the art to which said
12 subject matter pertains." 35 U.S.C. § 103. "The combination of familiar elements
13 according to known methods is likely to be obvious when it does no more than
14 yield predictable results." *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 416 (2007).

15 **III. SSL IS ENTITLED TO JUDGMENT AS A MATTER OF LAW THAT**
16 **THE ASSERTED CLAIMS OF THE '875 PATENT ARE INVALID**

17 **A. Because the Priority Date for the '875 Patent is March 25, 2009, the**
18 **ViaSat-1 Satellite Anticipates Asserted Claim 12 of the '875 Patent.**

19 **1. ViaSat-1 Is Prior Art Under 35 U.S.C. § 102(b).**

20 It is undisputed that the contract for the sale of the ViaSat-1 satellite was
21 signed on January 7, 2008. *See* Ex. V-188. As of the February 8, 2008 Program
22 Readiness Review for the ViaSat-1 satellite ("ViaSat-1"), SS/L offered for sale
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1 "Option 1a," a beam pattern that discloses every element of Claim 12 of the '875
2 patent. *E.g.* Trial Tr. 4/8, 4/9.

3 **2. *ViaSat-1 Discloses Every Limitation of Claim 12 of the '875 Patent.***

4 *a. ViaSat-1 discloses Claims 1(a) and 1(b) of the '875 patent.*

5 Claim 1(a) of the '875 patent recites: "A spot beam satellite comprising; an
6 antenna system configured to create a beam pattern having a plurality of different
7 colors." Claim 1(b) recites: "wherein a color has a unique combination of
8 frequency band and polarization." The Court construed "spot beam" as "a focusing
9 of electromagnetic radiation to permit communication with terminals in a
10 geographical region that is a portion of the satellite's total coverage area."
11 Frequency band is construed as "[a] continuous range of electromagnetic
12 spectrum."

13 As Professor Schindall testified, ViaSat-1 discloses a spot beam satellite
14 comprising an antenna system comprising an antenna system configured to create a
15 beam pattern having a plurality of different colors. *E.g.*, Trial Tr. 4/8; S-1193 at
16 SSL0085472 & SSL0085524.² The colors have a unique combination of frequency
17 band and polarization. *E.g.*, Trial Tr. 4/8; S-1193 at SSL0085509-510. Thus,
18 ViaSat-1 satisfies claim limitations 1(a) and 1(b) of the '875 patent.

21 ² In light of the recency of the testimony on validity and invalidity and the lack
22 of availability of a daily transcript on the same date, SSL submits general citations
23 to yesterday's transcript and requests leave to promptly supplement this brief with
24 pincites to the trial transcript.

b. *ViaSat-1 discloses Claim 1(c) of the '875 patent.*

Claim 1(c) of the '875 patent recites: "the spot bema satellite being configured to receive data from a plurality of service beams and from at least one feeder beam, each service beam having an associated service beam coverage area and the at least one feeder beam having an associated feeder beam coverage area." The Court construed "service beam" as "a focusing of electromagnetic radiation to permit communication between the satellite and one or more subscriber terminals located in the plurality of service beam coverage areas." The Court construed "feeder beam" as "a focusing of electromagnetic radiation to permit communication of information between the satellite and one or more gateway terminals, where the information is received from or relayed to subscriber terminals located in one of the plurality of service beam coverage areas." Finally, the Court construed "feeder beam coverage area" as "the portion of the satellite's total coverage area that is associated with a feeder beam."

As Professor Schindall testified, ViaSat-1 receives data from a plurality of service beams, reflected in the Eastern United States and along the West Coast and from feeder beams located in the middle of the country. *E.g.*, Trial Tr. 4/8; S-1193 at SSL0085524. As Professor Schindall testified, each service beam has its own service beam coverage area and each feeder beam has its own feeder beam coverage area as reflected in the beam map for "Option 1-a." *E.g.*, Trial Tr. 4/8; S-1193 at SSL0085524. Thus, ViaSat-1 discloses claim element 1(c).

c. *ViaSat-1 Discloses Claims 1(d) and 1(e) of the '875 Patent.*

Claim 1(d) of the '875 patent recites: "wherein the feeder beam coverage area is proximate to one or more of the service beam coverage areas." Claim 1(e)

1 of the '875 patent recites: "wherein the at least one feeder beam and a service beam
2 associated with each of the one or more service beam coverage areas proximate to
3 the feeder beam coverage area are allocated different colors from the beam pattern,
4 such that signals associated with different colors differ by a frequency band, a
5 polarization, or both a frequency band and a polarization." The Court construed
6 "proximate" as "partially overlapping such that color reuse is not permitted."

7 As Professor Schindall testified, ViaSat-1 discloses several "3-color
8 gateways" that are proximate to one or more service beam coverage areas." *E.g.*,
9 Trial Tr. 4/8; S-1193 at SSL0085524. As Professor Schindall testified, such "3-
10 color gateways" are allocated different colors than the proximate service beams
11 with which they overlap. *E.g.*, Trial Tr. 4/8; S-1193 at SSL0085524. Thus, ViaSat-
12 1 discloses claim elements 1(d) and 1(e).

13 *d. ViaSat-1 Discloses Claims 1(f) and 1(g) of the '875 Patent.*

14 Claim 1(f) of the '875 patent recites: "wherein the feeder beam coverage area
15 is not proximate to one or more of the service beam coverage areas." Claim 1(g) of
16 the '875 patent recites: "wherein the at least one feeder beam and a service beam
17 associated with each of the one or more service beam coverage areas not proximate
18 to the feeder beam coverage area includes at least one same color allocated to the
19 at least one feeder beam, such that signals associated with the same color have the
20 same frequency band and polarization."

21 As Professor Schindall testified, ViaSat-1 discloses several "3-color
22 gateways" that are not proximate to one or more of the service beam coverage
23 areas and that are allocated at least one same color from the set of colors allocated

1 to a service beam associated with each of the non-proximate service beam
2 coverage areas. *E.g.*, Trial Tr. 4/8; S-1193 at SSL0085524. Thus, ViaSat-1
3 discloses claim element 1(g).

4 *e. ViaSat-1 Discloses Claim 12 of the '875 Patent.*

5 Claim 12 of the '875 patent recites: "the spot beam satellite of claim 1
6 wherein the satellite is configured to receive data from the second at least one
7 feeder beam being associated with a second feeder beam coverage area, wherein
8 the second feeder beam coverage area is not proximate to any of the service beam
9 coverage areas, and wherein the second at least one feeder beam is allocated all of
10 the colors of the beam pattern."

11 As Professor Schindall testified, ViaSat-1 discloses several "4-color
12 gateways" that are not proximate to any of the service beam coverage areas and
13 that are allocated all four colors of the beam pattern. *E.g.*, Trial Tr. 4/8; S-1193 at
14 SSL0085520, SSL0085524. Thus, ViaSat-1 discloses claim 12.

15 In addition to the above evidence from Professor Schindall, ViaSat's experts
16 do not dispute that ViaSat-1 practices the asserted Claim 12 of the '875 Patent.
17 *E.g.*, Trial Tr. 4/9. No reasonable juror could dispute that ViaSat-1 anticipates
18 Claim 12 of the '875 patent and invalidates it as being "on sale." Accordingly, SSL
19 is entitled to judgment as a matter of law.³

20 **B. Even Assuming ViaSat is Entitled to a 2006 Priority Date for the '875**
21 **Patent, Claim 12 Is Invalid As Anticipated and Obvious In Light of the**
22 **Prior Art.**

23 ³ By separate motion, SS/L has moved under Rule 50 with respect to the
24 priority date of the '875 patent.

1 **1. MITRE Is Prior Art Under 35 U.S.C. § 102(a) and 102(b)**

2 The MITRE reference is a published paper dated 1982. *See generally* S-
3 1165. As a result, it is prior art under 35 U.S.C. § 102(a) and 102(b). No
4 reasonable juror could conclude that it fails to invalidate the '875 patent.

5 **2. MITRE Discloses Every Element of Claim 1 of the '875 Patent.**

6 *a. MITRE Discloses Claims 1(a) and 1(b) of the '875 Patent.*

7 As Professor Schindall testified, MITRE discloses claim elements 1(a) and
8 1(b) because it is a multibeam satellite with an antenna system creating a beam
9 pattern having a plurality of different colors. *E.g.*, Trial Tr. 4/8; S-1165 at Abstract,
10 Page 65, Page 70. As Professor Schindall testified, the colors have a unique
11 combination of frequency band and polarization. *E.g.*, Trial Tr. 4/8; S-1165 at Page
12 70. Thus, MITRE discloses claim elements 1(a) and 1(b) of the '875 patent.

13 *b. MITRE Discloses Claim 1(c) of the '875 Patent.*

14 As Professor Schindall testified, MITRE discloses claim element 1(c)
15 because the satellite is configured to receive data from a plurality of "CPS" beams,
16 which satisfy the Court's construction of "service beam." *E.g.*, Trial Tr. 4/8; S-1165
17 at 65-66, 70. As Professor Schindall testified, MITRE discloses that each service
18 beam has its own service beam coverage area, which is demarcated with the upper
19 halves of the circles in the beam pattern. *E.g.*, Trial Tr. 4/8; S-1165 at 70. As
20 Professor Schindall testified, MITRE discloses claim element 1(c) because the
21 satellite is further configured to receive data from "trunking" beams, which satisfy
22 the Court's construction of "feeder beam." *E.g.*, Trial Tr. 4/8; S-1165 at 65-66, 70.
23 As Professor Schindall testified, MITRE discloses claim element 1(c) because the
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1 feeder beams have their own feeder beam coverage areas, which are demarcated as
2 the lower halves of the circles in the beam pattern. *E.g.*, Trial Tr. 4/8; S-1165 at 70.
3 Thus, MITRE discloses claim element 1(c).

4 *c. MITRE Discloses Claims 1(d) and 1(e) of the '875 Patent.*

5 As Professor Schindall testified, MITRE discloses claim element 1(d)
6 because the at least one feeder beam over the New York area is proximate to one
7 or more service beam coverage areas. *E.g.*, Trial Tr. 4/8; S-1165 at Page 70. As
8 Professor Schindall testified, MITRE discloses claim element 1(e) because the at
9 least one feeder beam is allocated different colors than each of the service beams
10 associated with the proximate service beam coverage areas. *E.g.*, Trial Tr. 4/8; S-
11 1165 at Page 70. Thus, MITRE discloses claim elements 1(d) and 1(e).

12 *d. MITRE Discloses Claim 1(f) and 1(g) of the '875 Patent.*

13 As Professor Schindall testified, MITRE discloses claim element 1(f) and
14 1(g). *E.g.*, Trial Tr. 4/8; S-1165 at Page 70. As Professor Schindall testified, the at
15 least one feeder beam is not proximate to one or more service beam coverage areas
16 and uses at least one same color from the set of colors allocated to each of the non-
17 proximate service beams, as it reuses the color "white V" with a non-proximate
18 service beam located roughly over San Francisco. *E.g.*, Trial Tr. 4/7; S-1165 at
19 Page 70. Thus, MITRE discloses claim elements 1(f) and 1(g).

20 **3. AMC-17 is Prior Art under 35 U.S.C. § 102(b).**

21 AMC-17 was a commercial offer for sale that SSL made to SES-
22 AMERICOM on October 20, 2004. *See, e.g.*, Trial Tr. 4/8; *see generally* S-1323,
23 S-1450, S-1446. As a result, it is prior art under 35 U.S.C. § 102(b). Moreover,

1 AMC-17 was ready for patenting. *E.g.*, Trial Tr. 4/8. No reasonable juror could
2 conclude that it fails to invalidate the '875 patent.

3 **4. *AMC-17 Discloses Every Element of Claim 1 of the '875 Patent.***

4 *a. AMC-17 Discloses Claims 1(a) and 1(b) of the '875 Patent.*

5 As Professor Schindall testified, AMC-17 discloses claim elements 1(a) and
6 1(b) because it is a spot beam satellite comprising an antenna system configured to
7 create a beam pattern having a plurality of different colors, where the colors have a
8 unique combination of frequency band and polarization. *E.g.*, Trial Tr. 4/8; S-1446
9 at Page 2-6, 4-1, and 2-18; S-1450 at SSL0101969. Thus, AMC-17 discloses claim
10 elements 1(a) and 1(b).

11 *b. AMC-17 Discloses Claim 1(c) of the '875 Patent.*

12 As Professor Schindall testified, AMC-17 discloses claim element 1(c) of
13 the '875 patent because it receives data from 67 user beams, which satisfy the
14 Court's construction of "service beams" with "service beam coverage areas." *E.g.*,
15 Trial Tr. 4/8; S-1446 at Page 4-1; S-1450 at SSL0101969. As Professor Schindall
16 testified, AMC-17 discloses claim element 1(c) because it further receives data
17 from 11 gateways or hubs, which satisfy the Court's construction of "feeder
18 beams." *E.g.*, Trial Tr. 4/8; S-1446 at Page 4-1; S-1450 at SSL0101969. As
19 Professor Schindall testified, each feeder beam has its own "feeder beam coverage
20 area" which is created by the "large dedicated hub antenna." *E.g.*, Trial Tr. 4/8; S-
21 1446 at Page 4-1; S-1450 at SSL0101969. As Professor Schindall further testified,
22 feeder beam 7 satisfies the Court's construction of "feeder beam" because it
23 receives information from or relays information to subscriber terminals located in

1 service beam 67. *E.g.*, Trial Tr. 4/8; S-1446 at Pages 4-13 and 4-16. Thus, AMC-
2 17 discloses claim element 1(c).

3 *c. AMC-17 Discloses Claims 1(d) and 1(e) of the '875 Patent.*

4 As Professor Schindall testified, AMC-17 satisfies claim elements 1(d) and
5 1(e). *E.g.*, Trial Tr. 4/8; S-1446 at Page 2-18. As Professor Schindall testified, the
6 at least one feeder beam (feeder beam 7) is proximate to service beam coverage
7 areas 27, 28, 39, 40, 41, 51 and 52. *E.g.*, Trial Tr. 4/8; S-1446 at Page 2-18. As
8 Professor Schindall testified, the at least one feeder beam (feeder beam 7) is
9 allocated different colors from each of the service beams associated with the
10 proximate service beam coverage areas. *E.g.*, Trial Tr. 4/8; S-1446 at Pages 2-6,
11 Figure 2.2-1 Baseline 12-GHZ Frequency Plan; Gateway 7 to User Frequency Plan
12 (Feeder Uplink); Page 2-13; Figure 2.2-8; Service Beam Uplink Frequency Plan;
13 Page 2-20; Figure 2.2-14. Thus, AMC-17 discloses claim elements 1(d) and 1(e).

14 *d. AMC-17 Discloses Claims 1(f) & 1(g) of the '875 Patent.*

15 As Professor Schindall testified, AMC-17 discloses claim element 1(f) and
16 1(g). *E.g.*, Trial Tr. 4/8; S-1165 at Page 70. As Professor Schindall testified, the at
17 least one feeder beam (feeder beam 7) is not proximate to one or more service
18 beam coverage areas (all of the service beam coverage areas in the beam pattern
19 other than the proximate service beam coverage areas) and uses at least one same
20 color from the set of colors allocated to each of the non-proximate service beams.
21 *E.g.*, Trial Tr. 4/8; S-1446 at Page 2-18; Pages 2-6 Figure 2.2-1; Gateway 7 to User
22 Frequency Plan (Feeder Uplink); Page 2-13; Figure 2.2-8; Service Beam Uplink
23 Frequency Plan; Page 2-20; Figure 2.2-14. As Professor Schindall explained,
24 feeder beam 7 reuses a same color from the set of low band colors between 28.35

1 and 28.6 GHZ that are allocated to each of the non-proximate service beam
2 coverage areas. *E.g.*, Trial Tr. 4/8; S-1446 at Page 2-18; Pages 2-6 Figure 2.2-1;
3 Gateway 7 to User Frequency Plan (Feeder Uplink); Page 2-13; Figure 2.2-8;
4 Service Beam Uplink Frequency Plan; Page 2-20; Figure 2.2-14. Thus, AMC-17
5 discloses claim elements 1(f) and 1(g).

6 **5. *The Sharon Patent is Prior Art Under 35 U.S.C. § 102(a) and***
7 ***102(b).***

8 The Sharon Patent is a United States patent filed on May 23, 2000 and
9 issued on March 9, 2004. *See* S-1845. Thus, the Sharon Patent is a printed
10 publication under 35 U.S.C. § 102(a) and 102(b). No reasonable juror could
11 conclude that it fails to invalidate the '875 patent.

12 **6. *The Sharon Patent Discloses a Remote Feeder Beam Using All of***
13 ***the Colors of the Beam Pattern [Claim 12].***

14 As Professor Schindall testified, the Sharon Patent discloses a feeder beam
15 with a feeder beam coverage area that is not proximate to any service beam
16 coverage area, as it discloses a spot beam that encompasses a single, remote hub.
17 *E.g.*, Trial Tr. 4/8; S-1845 at Figure 10 and Column 9. As Professor Schindall
18 further testified, the Sharon Patent discloses that the remote hub may be allocated
19 all of the colors of the beam pattern—wherein a color is a unique combination of
20 frequency band and polarization—as it is spatially isolated from other spot beams.
21 *E.g.*, Trial Tr. 4/8; S-1845 at Figure 7 and Columns 6-8. Thus, the Sharon Patent
22 discloses a remote feeder beam being allocated all of the colors of the beam
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1 pattern, in accordance with the additional limitations of Claim 12 of the '875
2 patent.

3 **7. *The Asato Paper is Prior Art Under 35 U.S.C. § 102(a) and 102(b).***

4 The Asato Paper is a paper published in 1995. *See* S-1180. Thus, the Asato
5 Paper is a printed publication under 35 U.S.C. § 102(a) and 102(b). No reasonable
6 juror could conclude that it fails to invalidate the '875 patent.

7 **8. *The Asato Paper Discloses a Remote Feeder Beam Using All of the***
8 ***Colors of the Beam Pattern [Claim 12].***

9 As Professor Schindall testified, the Asato Paper discloses a spot beam
10 satellite with a plurality of service beams in the Middle East and a remote feeder
11 beam in the United States that is not proximate to any of the service beam coverage
12 areas. *E.g.*, Trial Tr. 4/8; S-1180 at Figure 2 & Page 724. As Professor Schindall
13 testified, the Asato Paper discloses that the remote feeder beam has its own feeder
14 beam coverage area. *E.g.*, Trial Tr. 4/8; S-1180 at Figure 2 & Page 724. As
15 Professor Schindall testified, the Asato Paper discloses that the remote feeder beam
16 is allocated all of the colors of the beam pattern, of which the service beam colors
17 are a subset. *E.g.*, Trial Tr. 4/8; S-1180 at Figures 4 & 6, Page 726. As Professor
18 Schindall further testified, the ITU radio regulations (which are themselves prior
19 art under 35 U.S.C. §§ 102(a) and (b)) confirm that the remote feeder beam in the
20 Asato Paper is allocated all of the colors of the beam pattern. *E.g.*, Trial Tr. 4/8; S-
21 1180 at Figures 4 & 6, Page 726; S-658. As Professor Schindall testified, one of
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1 ordinary skill in the art would be aware of the ITU radio regulations and their
2 frequency allocations. *E.g.*, Trial Tr. 4/8.

3 **9. *Combinations of the Above Prior Art Render Claim 12 of the '875***
4 ***Patent Obvious.***

5 As Professor Schindall testified, it would have been obvious to modify either
6 MITRE or AMC-17 to add a remote feeder beam that is allocated all of the colors
7 of the beam pattern, a feature that is disclosed in both the Sharon Patent and in the
8 Asato Paper. *E.g.*, Trial Tr. 4/8. Moreover, as Professor Schindall testified, AMC-
9 17 itself has a feeder beam that reuses all of the same colors as multiple non-
10 proximate service beams in the low band. *E.g.*, Trial Tr. 4/8; S-1446 at Page 2-6, 2-
11 13, 2-18, 2-20. As Professor Schindall testified, one of ordinary skill in the art
12 would have been motivated to combine either MITRE or AMC-17 with either
13 Sharon or Asato because they are all multibeam satellite systems seeking to
14 maximize capacity and frequency reuse. *E.g.*, Trial Tr. 4/8. Adding a remote feeder
15 beam using all colors to either AMC-17 or MITRE would have merely been a
16 combination of familiar elements, using known methods, yielding predictable
17 results. Trial Tr. 4/8. Thus, MITRE in combination with either the Sharon Patent or
18 Asato Paper renders obvious Claim 12 of the '875 Patent. AMC-17 in combination
19 with either the Sharon Patent or Asato Paper renders obvious Claim 12 of the '875
20 Patent.

21 ViaSat's experts' attempts to refute this prior art do not raise a triable issue.
22 ViaSat's expert Dr. Bartone applied an incorrect claim interpretation to Claims 1
23 and 12 of the '875 patent. In particular, Dr. Bartone erred in limiting the "plurality
24

1 of service beams" to only those that communicate with the particular "at least one
2 feeder beam" under consideration. *E.g.*, Trial Tr. 4/9. In addition, Dr. Bartone
3 applied a faulty claim construction in determining that "each" non-proximate
4 service beam in his artificial selection must reuse a same color as the feeder beam,
5 rather than the plain and ordinary meaning that the "set" of colors allocated to the
6 non-proximate service beams must reuse a same color as the at least one feeder
7 beam. These faulty claim interpretations—which import limitations into the claims
8 that are not there and are inconsistent with the specification and file history—
9 infected Dr. Bartone's analysis of both MITRE and AMC-17. Moreover, Dr.
10 Bartone failed to appropriately apply the Court's claim constructions to the service
11 beams, feeder beams, and feeder beam coverage areas disclosed in AMC-17 and
12 MITRE.

13 No reasonable juror, reviewing the evidence and the testimony in this case
14 could arrive at any other conclusion than Claim 12 of the '875 patent is anticipated,
15 rendered obvious, or is invalid as on sale if given a March 2009 priority date or is
16 anticipated, rendered obvious in light of the prior art, or rendered invalid as on sale
17 if given a 2006 priority date.

18 **IV. SSL IS ENTITLED TO JUDGMENT AS A MATTER OF LAW THAT**
19 **THE ASSERTED CLAIMS OF THE '827 PATENT ARE INVALID**

20 **A. AtContact Anticipates Claim 7 of the '827 Patent.**

21 ***1. AtContact Is Prior Art Under 35 U.S.C. § 102(a) and 102(b).***

22 AtContact's FCC filing dated March 22, 2004 along with its amendment to
23 that filing dated July 19, 2004 are printed publications within the meaning of 35

1 U.S.C. § 102(a) and 102(b). S-1160; S-1159. Because the latter incorporates by
2 reference the former, they are to be treated as a single reference for purposes of
3 anticipation. No reasonable juror could conclude that AtContact fails to invalidate
4 the '827 patent.

5 **2. *AtContact Anticipates Claim 7 of the '827 Patent.***

6 As Professor Schindall testified, AtContact anticipates Claim 7 of the '827
7 patent. It discloses "a geostationary orbit (GSO), satellite comprising a receiver
8 configured to receive from one or more ground stations signals in a GSO frequency
9 band and in an extended frequency spectrum, the extended frequency spectrum
10 including the GSO frequency band and a non-geostationary orbit (NGSO)
11 frequency band." As Professor Schindall explained, these claim limitations are
12 satisfied because AtContact discloses four GSO satellites that will also host four
13 NGSO payloads, and as the frequency plan for receiving in GSO and in NGSO
14 frequency spectrum is disclosed. *E.g.*, Trial Tr. 4/8; S-1160 at SSL83571,
15 SSL83575, Table 4B; Table 4C.

16 As Professor Schindall further testified, AtContact discloses "circuitry
17 configured to establish an activated frequency mode to activate one of a GSO
18 frequency band mode and an extended frequency spectrum mode based on
19 information indicating a presence or an absence of an interference situation with an
20 NGSo satellite system; and a transmitter configured to transmit in one of the GSO
21 frequency band and in the extended frequency spectrum based on the activated
22 frequency spectrum mode." Trial Tr. 4/8. As Professor Schindall testified,
23

1 AtContact discloses these limitations by, among other things, stating that it will
2 cease transmissions in the NGSO frequency bands to avoid causing interference
3 during "in-line" events (meaning interference situations with NGSO satellite
4 systems). *E.g.*, Trial Tr. 4/8; S-1159 at SSL83519.

5 **B. The FCC Third Report & Order Renders Obvious Claim 7 of the '827**
6 **Patent.**

7 As Professor Schindall testified, the FCC's Third Report & Order, published
8 in 1997, renders Claim 7 of the '827 patent obvious. *E.g.* Trial Tr. 4/8; S-1210 at
9 SSL1531121-23. The Third Report & Order is printed publication prior art under
10 35 U.S.C. §§ 102(a) and 102(b). S-1210.

11 As Professor Schindall testified, the FCC's Third Report & Order renders
12 Claim 7 of the '827 patent obvious because the FCC specifically ruled that GSO
13 satellites would be permitted to use GSO frequencies on a primary basis and
14 NGSO frequencies on a secondary, non-harmful interference basis during in-line
15 interference events. *E.g.* Trial Tr. 4/8; S-1210 at SSL1531121-23. Thus, as
16 Professor Schindall states, it would have been obvious to one of ordinary skill in
17 the art to satisfy the FCC's mandate by using common circuitry such as a switch to
18 turn off NGSO spectrum during the periods of in-line interference situations. *E.g.*
19 Trial Tr. 4/8. Furthermore, both Mr. Miller himself and ViaSat's expert Mr. Sturza
20 admitted that once it is known that a GSO satellite operator wishes to employ
21 NGSO frequencies, it would be obvious to use common circuitry like a switch to
22 cease transmissions during in-line events. *E.g.*, Trial Tr. 2408; 4/9 Trial Tr.

1 No reasonable juror could dispute that the FCC's Third Report & Order
2 renders Claim 7 of the '827 patent obvious.

3 **C. Skybridge Renders Obvious Claim 7 of the '827 Patent.**

4 As Professor Schindall testified, he considered the SkyBridge Ex Parte FCC
5 Filing as rendering the '827 patent obvious. Trial Tr. 4/9; S-1170. Skybridge is a
6 document filed publicly with the FCC as of 2002 and thus is printed publication
7 prior art under 35 U.S.C. §§ 102(a) and 102(b).

8 As Professor Schindall testified, Skybridge discloses two NGSO satellites in
9 relative motion to one another. *E.g.*, Trial Tr. 4/8; S-1170. As Professor Schindall
10 further testified, Skybridge demonstrates that the lower-orbit NGSO transmits in an
11 extended frequency band comprising "F1" and "F2" bands except during in-line
12 interference events, where it switches so as to only transmit in the "F1" band. *E.g.*,
13 Trial Tr. 4/8; S-1170 at SSL0084653. As Professor Schindall testified, it would
14 have been obvious to one of ordinary skill in the art to modify Skybridge to apply
15 in the case of a GSO satellite using NGSO spectrum on a secondary basis and
16 switching to avoid in-line interference situations. *E.g.*, Trial Tr. 4/8; S-1170. Thus,
17 Skybridge renders Claim 7 of the '827 patent obvious in light of the prior art.

18 No reasonable juror could dispute that Skybridge renders Claim 7 of the '827
19 patent obvious.

20 **D. Weideman Renders Obvious Claim 7 of the '827 Patent.**

21 As Professor Schindall testified, he considered AtContact in combination
22 with the FCC's Third Report & Order and with the Weideman Patent. Trial Tr. 4/7;
23 S-The Weideman patent was published March 21, 2001, and thus is printed

1 publication prior art under 35 U.S.C. § 102(a) and 102(b). S-2271. As Professor
2 Schindall testified, the Weideman patent discloses a dynamic filter controller,
3 along with bandwidth controller circuitry including common components like
4 switches, low-noise amplifiers, mixers and local oscillators, etc., to accomplish
5 transponder bandwidth control. *E.g.*, Trial Tr. 4/8; S-2271 at Title, Figure 2A,
6 Figure 7. As Professor Schindall testified, it would have been obvious to
7 implement NGSO interference avoidance techniques recited by Claim 7 of the '827
8 patent using the circuitry and methods outlined in Weideman. *E.g.*, Trial Tr. 4/8; S-
9 2271 at Title, Figure 2A, Figure 7. Thus, Weideman renders Claim 7 of the '827
10 patent obvious.

11 No reasonable juror could dispute that the Weideman patent renders Claim 7
12 of the '827 patent obvious.

13 **E. Combinations of the Above Prior Art Render Claim 7 of the '827**
14 **Patent Obvious.**

15 As Professor Schindall testified, AtContact in combination with the FCC's
16 Third Report & Order and with the Weideman Patent render obvious Claim 7 of
17 the '827 patent.

18 As Professor Schindall testified, the FCC specifically allocates certain
19 spectrum for primary use by GSO satellites, certain spectrum for primary use by
20 NGSO satellites, but permits either type of satellite to use the other spectrum on a
21 secondary, non-harmful interference basis. *E.g.*, Trial Tr. 4/8; S-1210 at
22 SSL1531121, SSL1531123. As Professor Schindall further testified, the method of
23 switching on or off certain bandwidth in order to use NGSO spectrum on a

1 secondary basis during in-line events and thus avoid interference would have been
2 obvious to one of ordinary skill in the art in light of the Weideman patent, which
3 discloses a dynamic filter controller, along with bandwidth controller circuitry
4 including common components like switches, low-noise amplifiers, mixers and
5 local oscillators, etc., to accomplish transponder bandwidth control. *E.g.*, Trial Tr.
6 4/8; S-2271 at Title, Figure 2A, Figure 7.

7 Based on the evidence presented, no reasonable jury could disagree that
8 Claim 7 of the '827 patent is anticipated or rendered obvious by the prior art. SSL
9 is entitled to judgment as a matter of law.

10 **V. VIASAT FAILED TO PRESENT EVIDENCE THAT WOULD ALTER**
11 **THE ABOVE ANALYSIS AS TO ANY OF THE ASSERTED**
12 **PATENTS.**

13 To the extent that ViaSat's experts purported to disagree that any of the
14 asserted prior art invalidates the '875 and '827 patents, such trivial disputes fail to
15 raise a triable issue for the jury as to obviousness. The overwhelming evidence
16 indicates that the limitations of each of the asserted patents are well-known in the
17 prior art, and any minor differences between the scope of the prior art and the
18 scope of the claims would have been obvious to one of ordinary skill in the art.

19 Dr. Bartone's assertion that AMC-17 is not partial CONUS does not refute
20 Professor Schindall's showing that it AMC-17 meets every requirement of Claim 1
21 of the '875 patent because that claim does not require partial coverage.⁴ Dr.

22 ⁴ All references to rebuttal testimony are based on contemporaneous attorney
23 notes and recollections as trial transcripts were not available as of the time of this
24 submission.

1 Bartone's claim that AMC-17 does fully re-use colors between gateways and user
2 beams does not refute Dr. Schindall's showing because full color re-use is also not
3 required by Claim 1 of the '875 patent, and because the accused Jupiter-1 satellite
4 also does not fully re-use colors between gateway and user beams, as shown in S-
5 2461 at SSL22921 & -231. Dr. Bartone's claim that AMC-17 does not anticipate
6 Claim 1 of the '875 patent because a user beam that communicates with GW7 does
7 not share a color with GW7 does not refute Dr. Schindall's showing because this is
8 not a requirement of the claims as construed by the Court, for the reasons set out in
9 Defendants' Memorandum of Points and Authorities in Support of Defendants'
10 Motion to Strike Dr. Bartone's Unreasonable Claim Constructions of U.S. Patent
11 No. 8,107,875 and to Construe Claim Term Under *O2 Micro*. Dkt. 526-1.

12 Dr. Bartone offered no reasons for his conclusion that MITRE does not
13 disclose gateways, feeder beam and service beam coverage areas, or proximity, as
14 required by Claim 1 of the '875 patent. Dr. Bartone's claim that MITRE does not
15 have isolated gateways with full frequency re-use does not refute Dr. Schindall's
16 showing because that is not a requirement of Claim 1 of the '875 Patent. Dr.
17 Bartone's claim that the PTO's consideration of the Sharon reference refutes Dr.
18 Schindall's showing of obviousness fails because Dr. Bartone did not dispute that
19 the PTO did not consider Sharon in connection with either MITRE or AMC-17.
20 Dr. Bartone provided no reasons for his conclusion that the military application of
21 Asato would discourage combination with MITRE or AMC-17.

22 Dr. Bartone also failed to refute Dr. Schindall's showing that Claim 12 of the
23 '875 patent finds written description support in the '038 application because he did

1 not show an express or inherent disclosure of color re-use by proximate gateways,
2 as the claim requires, and because he admitted that he had not considered whether
3 his exemplary beam coloring of Fig. 2B could actually be implemented in
4 accordance with Claim 12 when confronted with the fact that it could not. Dr.
5 Bartone also introduced no evidence to connect the '038 Provisional Application to
6 the '875 Patent Application through intermediate applications, which fails to carry
7 ViaSat's burden to support its priority claim as a matter of law.

8 Mr. Sturza failed to identify any evidence that ViaSat had conceived of an
9 NGSO switch before being presented with the FFP on September 19 and 20, 2007,
10 and admitted that the only prior ViaSat document he referenced in his direct
11 examination, S-1185, does not disclose an NGSO switch. Moreover, Mr. Sturza
12 admitted that it was obvious to use an extended frequency switch when given the
13 requirement to use the frequency plan identified in S-1185, thus conceding that
14 Claim 7 of the '827 patent is invalid over at least AtContact, which sets out a
15 similar requirement. Mr. Sturza's testimony that the SS/L FFP as set out in S-303
16 does not describe use for dynamic switching to avoid interference is immaterial in
17 light of Mr. Sturza's application of Claim 7 of the '827 for purposes of
18 infringement to encompass any switch that is capable of being commanded for the
19 purpose of avoiding in-line interference. *E.g.*, Trial Tr. 4/3, at 1716:17-21. Mr.
20 Sturza addressed the Skybridge reference only for purposes of anticipation, for
21 which it was not offered, and did not rebut Dr. Schindall's obviousness showing for
22 that reference. In concluding that the ViaSat and AtContact applications reflected
23 different approaches, Mr. Sturza failed to consider that ViaSat claimed in support

1 of its own application that it would handle in-line interference in the same way as
2 described in AtContact's successful application to the FCC to use the NGSO
3 spectrum in an NGSO satellite. Mr. Sturza also failed to address Dr. Schindall's
4 showing that the ViaSat and AtContact approaches were the same. Mr. Sturza
5 failed to rebut Dr. Schindall's showing regarding the Weideman combinations.

6 Although Professor Schindall considered secondary indicia of obviousness
7 or non-obviousness, he did not conclude that any secondary considerations altered
8 his conclusions. Trial Tr. 4/8. ViaSat, on the other hand, failed to submit any
9 evidence of secondary indicia of non-obviousness that would save any of the
10 asserted claims of the asserted patents from being found obvious. For example,
11 although Dr. Bartone pointed to awards and praise that ViaSat-1 has received, he
12 provided no evidence of any nexus to the alleged invention of Claim 12 of the '875
13 Patent—proximate gateways reusing color with non-proximate service beams in
14 conjunction with isolated gateways. Further, while ViaSat has attempted to use the
15 Doug Burr patent in combination with the "Option 3" email as evidence of
16 "deliberate copying," such evidence fails as a matter of law in light of the fact that
17 (1) it is undisputed that "Option 3" is not conception evidence of the '875 patent;
18 (2) the "Option 3" email fails to include the proximate feeder beam limitations of
19 the '875 patent; and (3) Doug Burr's patent therefore cannot have evidenced
20 "copying" of the '875 patent (even if one were to assume, against the evidence, that
21 the Burr patent merely copied "Option 3").
22
23
24

1 In light of the evidence presented, no reasonable jury could dispute that the
 2 asserted claims of the '875 and '827 patents are invalid as anticipated and obvious
 3 in light of the prior art.

4 VI. CONCLUSION

5 For the foregoing reasons, SS/L respectfully moves for judgment as a matter
 6 of law of invalidity of each claim of each patent asserted against it.

7
 8 Dated: April 10, 2014

By: /s/ Amanda K. Bonn

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CERTIFICATE OF SERVICE

I hereby certify that, on April 10, 2014, I caused the foregoing
**DEFENDANTS' RULE 50 MOTION FOR JUDGMENT AS A MATTER
OF LAW ON INVALIDITY OF THE '875 AND '827 PATENTS** to be
served on opposing counsel via the Court's CM/ECF system.

Dated: April 10, 2014,

By: /s/ Amanda K. Bonn