

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MASSACHUSETTS

L-3 COMMUNICATIONS SECURITY
AND DETECTION SYSTEMS
CORPORATION DELAWARE

Plaintiff,

v.

AMERICAN SCIENCE &
ENGINEERING, INC.

Defendant

Civil Action No. 04-10339-RWZ

**AS&E'S OPPOSITION TO L-3'S
MOTION FOR PARTIAL SUMMARY JUDGMENT
CONCERNING THE VALIDITY OF U.S. PATENT NO. 5,903,623**

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INTRODUCTION

AS&E's contract with the U.S. Army to develop a mobile x-ray inspection system does not invalidate the '623 patent under the "on-sale" bar for two reasons. First, the contract was not a sale or offer to sell the inventions claimed in the '623 patent. In particular, the contract and related materials did not show that the x-ray inspection system was configured for the radiation beam to "traverse" the object being inspected, as all of the claims-at-issue require. The contract materials also did not show other limitations of the claims, as detailed below.

Second, the claimed inventions (which had never been built or tested until long after the critical date) were not "ready for patenting" before the critical date (*i.e.*, one year before the priority date of the patent). At the very least, a dispute of material fact precludes summary judgment. Indeed, L-3 itself argues that "questions of material fact exist as to when the Mobile CargoSearch system was 'ready for patenting' . . ." and that, therefore, AS&E's pending motion for summary judgment "should be denied." *Surreply in Support of L-3's Opposition to AS&E's Motion for Partial Summary Judgment* at p. 14.

Moreover, the deposition testimony of AS&E's Chief Technical Officer, Joseph A. Callera (excerpts attached as **Exh. A**), further shows that the claimed inventions of the '623 patent were not "ready for patenting" before the critical date. Accordingly, this Court should deny L-3's summary judgment motion.¹

¹ All cited exhibits and deposition testimony appear in AS&E's accompanying Appendix of Exhibits. AS&E has filed these exhibits and testimony under seal because a majority of them contain confidential information. The portions of the exhibits and testimony cited in this Statement of Facts and in AS&E's brief, however, are not confidential. Accordingly, neither the brief nor the Statement of Facts need to be impounded.

Finally, even if, *arguendo*, the inventions disclosed in certain claims of the ‘623 patent were “on sale” before the critical date, this Court has no jurisdiction to declare them invalid. As this Court may recall, after L-3 filed its declaratory judgment action, AS&E moved to dismiss for lack of case or controversy. See Court Docket Entries 4 and 5 (AS&E’s motion papers). At the time, the Court denied AS&E’s motion because the parties could not agree on certain facts. See Court’s Electronic Order of May 19, 2005. But now, as L-3 admits in its summary judgment brief (at footnote 2), L-3 is seeking to invalidate claims that call for backscatter detection imaging, not transmission imaging (*i.e.*, different types of x-ray imaging claimed in the patents). But, as far as AS&E knows, L-3’s mobile x-ray inspection systems do not employ backscatter imaging. They employ transmission imaging only. Thus, AS&E could not have accused, and does not now accuse, L-3 of infringing those claims that require backscatter imaging (or, for that matter, side scatter and forward scatter imaging). The claims implicated in L-3’s motion that require some form of scatter imaging are Claims 7, 9, 30, 32, 48, and 50.² Accordingly, because there can be no case or controversy on these “backscatter” claims, this Court has no jurisdiction to declare them invalid.

STATEMENT OF FACTS

A. The ‘623 Patent

United States Patent No. 5,903,623 (“the ‘623 patent”) issued to Swift *et al.* on May 11, 1999, and was assigned to AS&E. The ‘623 patent results from an application filed on May 4,

² Of course, to the extent that L-3 contends that the independent claims (1, 19, and 42-25) require backscatter imaging, then, for the same reason, there can be no declaratory judgment jurisdiction for them and for all of their dependent claims. The independent claims, however, allow for either scatter imaging, transmission imaging, or both.

1998. That application, in turn, traces its heritage to a provisional application filed on February 12, 1996. *See Exh. B*, ‘623 Patent. Accordingly, the so-called “critical date” for purposes of the § 102(b) on-sale bar is one year before the provisional application--February 12, 1995.

The ‘623 patent has fifty-seven claims. Claims 1, 19, and 42-45 are independent. All other claims depend from the various independent claims. For example, Claims 2-18 depend from Claim 1, Claims 20-41 depend from Claim 19, and so on.

Claim 1 is directed to a mobile x-ray inspection device and provides as follows:

1. A device, for inspecting a large object with penetrating radiation, the device comprising:
 - (a) a self-propelled vehicle capable of on-road travel;
 - (b) a source of penetrating radiation, mounted on the vehicle, for providing a beam of penetrating radiation;
 - (c) a beam stop for absorbing the beam of penetrating radiation after traversal of the object; and
 - (d) at least one detector coupled to the vehicle, the at least one detector having a signal output so that the beam is caused to traverse the object in a first direction as the vehicle is moved and the signal output characterizes the object.

Exh. B, ‘623 Patent at Col. 10, *ll.* 27-39.

The other independent claims (Claims 19 and 42-45) all share several limitations in common with Claim 1 and, in particular, the requirement that the beam of penetrating radiation “traverse” the object being scanned. *See, e.g.*, Claim 19 at Col. 11, *ll.* 44-46 (“so that the beam is caused to traverse the object”); Claim 42 at Col. 12, *ll.* 60-61 (“a beam stop for absorbing the beam of penetrating radiation after traversal of the object”) (emphasis added).

As argued below, the alleged prior art sale materials (*i.e.*, the January 1994 proposal and the October 1994 contract) did not disclose at least this “traverse” claim limitation and, therefore, the alleged prior art sale could not have anticipated the claims at issue.

B. Development and Testing Remained to Be Done After the Contract

In January 1994, AS&E proposed to the United States Army to build a mobile version of AS&E’s CARGOSEARCH x-ray inspection system, then in development and eventually installed at Otay Mesa, California. **Exh. C**, AS&E MOBILE CARGOSEARCH™ X-Ray Inspection System Technical Proposal, dated January 31, 1994, at p. A-1 and B-5.

The CARGOSEARCH x-ray inspection system at Otay Mesa (the “Otay Mesa installation”) is a fixed-site, drive-through inspection system that, to a lay person, might look like a car wash. A car or truck to be inspected (*e.g.*, at a border crossing like Otay Mesa) is pulled through the installation via a chain or conveyor belt apparatus. **Exh. A**, Deposition of Joseph A. Callerame, dated February 17, 2005 (“Callerame depo.”), at 29-32.³

As originally proposed, the mobile inspection system (now called MOBILESEARCH™) was to be, simply, a mobile version of the Otay Mesa fixed-site installation. L-3 argues that the mobile system was “ready for patenting” because, *inter alia*, AS&E originally proposed that converting the Otay Mesa installation would be a simple task, requiring only “minimal” engineering. L-3’s Summary Judgment Brief at 5. While that is what AS&E first intended and proposed to the government, that is not the reality of the situation. Mobilizing the Otay Mesa

³ Dr. Callerame (he has a Ph. D. in physics from Harvard) is AS&E’s Vice President and Chief Technical Officer. AS&E designated him as its Rule 30(b)(6) spokesman on certain topics in response to L-3’s notice of deposition to AS&E.

system turned out to be much more difficult than originally anticipated. It was not simply a matter of putting the car wash on wheels, so to speak.

Rather, as Dr. Callerame testified, the MOBILESEARCH system differs “[i]n many ways” from the Otay Mesa “car-wash system.” **Exh. A**, Callerame depo. at 29-30. For example, in addition to the primary and obvious difference (self-propelled mobility), the mobile system has one x-ray source and the Otay Mesa fixed-site system has two sources. To Dr. Callerame, that was “a very significant difference.” *Id.* at 30. Another significant difference is that the “angle of attack of the x-rays on the cargo is substantially different between the two systems.” *Id.* Dr. Callerame went on to explain during the deposition why the angle of attack matters and how it differs between the two systems. *Id.* at 30-31. He then listed other differences, such as the detectors and other elements. *Id.* at 31-32.

These differences evolved over time, as AS&E was developing the mobile system that eventually became the subject of the ‘623 patent. Thus, it is important to note that the claimed mobile system was not fully developed--either conceived or reduced to practice--when AS&E first proposed to the U.S. Army to convert the Otay Mesa fixed-site (*i.e.*, “car-wash”) system to a self-propelled mobile system. All of the differences that Dr. Callerame discussed, and other problems, needed to be researched, conceived, tested, and reduced to practice before the final invention was ready for patenting.

For that reason, AS&E entered into a “cost-plus-fixed-fee” contract with the government, not a simple sales contract. A cost-plus-fixed fee contract is for an item that is still in development--*i.e.*, that is not yet an existing product but which instead requires research and development. **Exh. A**. Callerame depo. at 35-37 (defining the term “cost-plus-fixed-fee”); 157 (“Considerable design requirements existed” in the wake of the proposal and the October

1994 contract); 158 (“more work needed to be done . . .”); 195 (“One does not know in these types of programs [cost-plus-fixed-fee] how long the actual reduction to practice will be”); 196 (“And so in a cost-plus program, one does not know for sure whether the conclusion will be successful”).

As seen in the October 1994 contract, the mobile inspection system was still in the drawing-board stage, still just a proposal, still just a gleam in AS&E’s eye, at the time of the contract. For example, AS&E made clear to the U.S. Army contract authorities that the contract was for a “proposed program to develop a fully-mobile version of the 450 kV CARGOSEARCH system . . .” **Exh. D**, October 1994 Contract at AS&E00502402 (emphasis added). As such, AS&E told that Army that it “will develop a system design specification,” which task “will include specification of the truck and the truck body.” *Id.* at AS&E00502428 (emphasis added). The use of the future tense “will” shows that these tasks had not yet been performed.

Likewise, AS&E emphasized that “major tasks” remained to complete, including “System Conceptual Design and Specification.” *Id.* at AS&E 00502427 (emphasis added).

Dr. Callerame confirmed that there was much to be done after the contract was signed in October 1994. *See Exh. A*, Callerame depo. at 159 (“Every proposal I’ve ever worked on had a key design phase in it, and so does this. And on page C-2 here [of AS&E’s proposal, **Exh. C**], it says, ‘AS&E will develop a system design specification which will establish the design criteria, operational requirements, and performance characteristics’”).

As it turned out, AS&E spent many months designing, developing, testing, and reducing to practice the mobile x-ray system after it signed the contract with the U.S. Army.

In particular, AS&E held a so-called “preliminary design review” on February 14, 1995 (two days after the critical date), as L-3 points out. And yes, as L-3 also points out, some work

was done before the preliminary design review (and hence before the critical date) on engineering drawings and the like. But that does not mean that the mobile x-ray system was tested, reduced to practice, and ready for patenting before the critical date--or even before the preliminary design review, for that matter. Indeed, as Dr. Callerame explained, the preliminary design review is just that--preliminary, not final. Thus, at the preliminary design review--which occurred after the critical date--there could be "mistakes in it or errors in the design." **Exh. A**, Callerame depo. at 238. Dr. Callerame went on to explain, "That's why it's called a preliminary design review. The implication is it's not the final." *Id.*

The AS&E documents prepared at or around the time of the preliminary design review show that, indeed, the system still needed testing and that AS&E still didn't know that it would work. For example, a document entitled "Preliminary Design Review" (**Exh. E**), dated February 14, 1995, shows that the hydraulic device for operating the scan drive (*i.e.*, the separate drive train that propels the inspection truck at a very slow and precise pace while it scans the object) was not even scheduled to be procured, let alone tested, until April 1995.⁴ Other components of the system also needed to be procured. *See Exh. E* at AS&E 01701967. Furthermore, the testing of the completed system was not scheduled to be done until August and September 1995. *Id.*

After reviewing this document at his deposition, Dr. Callerame concluded that "[i]t's not clear at all to me that this initial version at this point [February 1995] was viable, so I don't know

⁴ This hydraulic scan drive is claimed in various independent and dependent claims of the '623 patent. For example, Claim 19 requires "a second drive train, distinct from the first drive train, for propelling the vehicle in a first direction during inspection of the object." '623 Patent, Col. 11 at *ll.* 37-39. So that limitation of the claims, as well as others, were not yet reduced to practice and ready for patenting before the critical date of February 12, 1995.

whether this version is good or not.” **Exh. A**, Callerame depo. at 170. In other words, as the documents show, much development work still remained after the preliminary review.

A document entitled “Scientific and Technical Report” for Contract No. DAAB10-95-C-0001 (*i.e.*, the October 1994 contract) summarizes the development of the mobile x-ray system. This document shows that as a result of the preliminary design review, “Twenty-three Action Items (AIs) resulted from that presentation” and that six of these action items required further “technical analysis.” **Exh. F** at AS&E06201350. A letter from AS&E to the Army, dated February 22, 1995--ten days after the critical date--includes minutes of the preliminary design review. These meeting minutes show that many aspects of the mobile x-ray system still needed to be calculated, designed, and tested. *See, e.g.*, **Exh. G** at AS&E02900227 (“AS&E had discussed the effects but not calculated them”). The minutes also include a list of action items, many of which remained “open” after the preliminary review. *Id.* at AS&E02900233.

These documents tend to show that much in the way of design, development, research, and testing remained to be done well after the critical date. Importantly, these documents show that AS&E had not built and tested even one mobile inspection system and thus did not know whether it would work.

C. The Contract Does Not Disclose Each and Every Limitation of the Claims

Contrary to L-3’s sweeping contentions that the alleged prior art sale contains the same drawings and same descriptions as the ‘623 patent, there are many important differences. As such, and as argued below, the October 1994 contract work done before the critical date did not fully anticipate the claims at issue.

Specifically, at his deposition, L-3’s counsel asked Mr. Callerame to compare the January 1994 technical proposal, as incorporated into the October 1994 contract, with the ‘623 patent.

First, Dr. Callerame testified that the not all of the drawings in the proposal are the same as those in the specification of the '623 patent. For example, when asked whether Figure B-16 in the proposal and Figure 3 in the patent are substantially the same, he testified that, to his schooled eye, it is not clear that the figures are identical. **Exh. A**, Callerame depo. at 223-224. He went on to catalog various substantial differences between the drawings in the proposal and the patent figures. *Id.* at 224-227.

Dr. Callerame was then asked whether the mobile x-ray system offered for sale anticipated the claims of the '623 patent. He replied that there was no anticipation (*i.e.*, a one-to-one correspondence between the prior art and the limitations of the claims):

- Q. If the item that was proposed in [the October 1994 contract] is in fact prior art, would that piece of prior art meet each and every limitation of claim one of [the '623 patent]?
- A. I noted a few exceptions in there, so I guess the literal answer is no. I mentioned to you the issue of traversing the object, for example, which is in claim one."

Exh. A, Callerame depo. at 243-44.

When L-3's counsel went claim-by-claim through the '623 patent and asked Dr. Callerame to compare the proposal to those claims, Dr. Callerame pointed out various claim limitations that are not disclosed in the contract/proposal. In particular, the proposal does not show that the beam of penetrating radiation traverses the object (*e.g.*, a truck to be inspected), as Claim 1 and all of the other claims require. *Id.* at 156 ("Well, a 43-degree beam, depending on the size of the cargo that's being scanned, will not traverse the cargo . . . it will not traverse the truck"); 236 ("As I said before, the traversal of the objection part is something I would take some issue with . . ."); 237 ("Again, my objection to the word 'traverse'"). Dr. Callerame reads this "traverse" limitation to require that the radiation entirely penetrates through the object. *Id.* at

244. He explained the concept in lay terms: “If I say I traversed the intersection of a road, I interpret that as I’ve gone through the intersection of the road.” *Id.*

Dr. Callerame also testified that the proposal does not show that the “angle of regard” of the radiation beam is adjustable and does not show that “a way to aim the source up or down.” *Id.* at 242-243. As such, the proposal does not disclose a device that includes “a steering arrangement for steering the orientation of the angle of regard with respect to the horizontal,” as Claims 13, 36, and 53 all require. *Id.*

The following chart summarizes the limitations in the claims of the ‘623 patent that are not disclosed in the October 1994 contract/proposal.

Claim Limitation In ‘623 Patent Not Found AS&E’s Proposal	Callerame Deposition Testimony Concerning AS&E’s Proposal
Claim 1 “so that the beam is caused to <u>traverse</u> the object in a first direction as the vehicle is moved and the signal output characterizes the object”	“Well, a 43-degree beam depending on the size of the cargo that’s being scanned, will not traverse the cargo . . . [for example] it will not traverse [a] truck.” p. 156
Claims 2-18 Each claim depends from Claim 1 and thus also contains the “traverse” requirement	“As I said before, the traversal of the objection part is something I would take some issue with. . . ” It would not traverse an “SUV or a taller car.” p. 236 “Again, my objection to the word ‘traverse’.” p. 237
Claim 13 “a steering arrangement for steering the orientation of the angle of regard with respect to the horizontal”	“There’s no indication in the drawing of a way to aim the source up or down...” p. 243
Claim 19 “so that the beam is caused to <u>traverse</u> the object as the vehicle is moved and the signal output characterizes the object”	“Well, a 43-degree beam, depending on the size of the cargo that’s being scanned, will not traverse the cargo . . . [for example] it will not traverse [a] truck.” p. 156
Claims 2--41 All depend from Claim 19 and thus all incorporate the “traverse” requirement	“Again my objection to the word ‘traversal’.” p. 239

Claim Limitation In '623 Patent Not Found AS&E's Proposal	Callera Deposition Testimony Concerning AS&E's Proposal
Claim 36 "a steering arrangement for steering the orientation of the angle of regard with respect to the horizontal"	"There's no indication in the drawing of a way to aim the source up or down..." p. 243
Claim 42 "a beam stop for absorbing the beam of penetrating radiation after <u>traversal</u> of the object"	"It is not clear that a beam stop would be required." p. 155 "Well, a 43-degree beam, depending on the size of the cargo that's being scanned, will not traverse the cargo . . . [for example] it will not traverse [a] truck." p. 156
Claim 44 "so that the beam is caused to <u>traverse</u> the object . . ."	"Well, a 43-degree beam, depending on the size of the cargo that's being scanned, will not traverse the cargo . . . [for example] it will not traverse [a] truck." p. 156
Claim 45 "so that the beam is caused to <u>traverse</u> the object . . ."	"Well, a 43-degree beam, depending on the size of the cargo that's being scanned, will not traverse the cargo . . . [for example] it will not traverse [a] truck." p. 156
Claims 45-57 All depend from Claim 44	"Well, a 43-degree beam, depending on the size of the cargo that's being scanned, will not traverse the cargo . . . [for example] it will not traverse [a] truck." p. 156
Claim 53 "a steering arrangement for steering the orientation of the angle of regard with respect to the horizontal"	"There's no indication in the drawing of a way to aim the source up or down..." p. 243

D. There Is No Case or Controversy

As prefaced above, this case began as a declaratory judgment action. But L-3 targets in its summary judgment motion only those claims that involve backscatter (or side scatter) imaging. L-3's own technical documents, obtained from its website (www.L-3com.com/xray) show that L-3's mobile cargo x-ray inspection systems employ transmission detection only. The documents do not mention backscatter detection at all. See, e.g., **Exh. H**, Technical Specification for Model CX-450M ("The CX-450M sets itself apart from other mobile systems

by producing a superior transmission image”). As argued in Part III of the Argument section below, L-3 may not seek declaratory relief on claims that, without dispute, require backscatter (or other kinds of scatter radiation) detection.

ARGUMENT

A patent is presumed to be valid. 35 U.S.C. § 282. Each claim of a patent discloses its own invention. Thus, each claim stands on its own and remains valid and enforceable regardless of the validity of other claims. 35 U.S.C. § 282; *Dana Corp. v. American Axle & Mfg., Inc.*, 279 F.3d 1372, 1376 (Fed. Cir. 2002). To prove invalidity, the patent challenger--in this case, L-3--must prove the invalidating facts by clear and convincing evidence. *Iron Grip Barbell Co., Inc. v. USA Sports, Inc.*, 392 F.3d 1317, 1320 (Fed. Cir. 2004).

L-3's burden of proof is even harder in this case, however, because the PTO has already considered, during its examination of the '623 patent, the validity challenge raised in the litigation. *See, Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464, 1467 (C.A. Fed. 1990) (noting that the “burden is especially difficult” on party who seeks to prove that patent was anticipated by prior art considered during the examination process). Here, as discussed in AS&E's motion regarding inequitable conduct, the PTO examiner knew of the January 1994 proposal and the resulting contract. Thus, the PTO presumably wrestled with this issue during the examination process. *See, Metabolite Lab., Inc. v. Laboratory Corp. of America Holdings*, 370 F.3d 1354, 1368 (Fed.Cir. 2004) (finding no anticipation because prior art was considered by the PTO during examination).

I. BECAUSE THE CONTRACT/PROPOSAL DOES NOT ANTICIPATE THE CLAIMS, THERE WAS NO “OFFER FOR SALE”

L-3 labors under a heavy burden to provide clear and convincing evidence that the inspection system described in AS&E’s January 1994 Technical Proposal fully anticipates the claimed invention. *Pfaff v. Wells Electronics., Inc.*, 52 U.S. 55, 67 (1998). Indeed, if even one limitation of the claim is missing from the product that was offered -- no matter how small or insignificant that limitation may seem -- then there can be no anticipation and thus, no offer for sale. *Ferag AG v. Quipp Inc.*, 45 F.3d 1562, 1566, (Fed.Cir.1995). *See also Tec Air, Inc. v. Denso Mfg. Mich., Inc.*, 192 F.3d 1353, 1358 (Fed. Cir. 1999) (holding that an offer for sale before the critical date does not raise the on-sale bar when the subject matter of the offer does not fully anticipate the claimed invention).

L-3 fails to carry its burden. In fact, the inspection system described in the Technical Proposal and subsequent contract does not fully anticipate the claimed invention, and thus, there was no “offer for sale” prior to the critical date. AS&E never triggered the on sale bar. *Id.*⁵

As seen above, Dr. Callerame testified that the product offered in the 1994 contract/proposal fails to disclose key limitations of the claims, such as the requirement that the beam of radiation “traverse” the object. Specifically, Dr. Callerame testified that the 45-degree beam depicted in the Technical Proposal will not traverse “traverse” as required by Claims 2-41

⁵ Anticipation by a prior art reference under § 102(b) is regarded as a “technical” defense and is disfavored. Thus, even the smallest difference between the prior art and the patent claim will sink the anticipation defense. This mandate is especially strong here given the presumption of validity and the strictness of the anticipation defense. “Because of the strict requirement that all elements of the claimed invention must be present within a single prior art reference, the requisite degree of identity is rarely found and anticipation is deemed a ‘technical defense.’” *Phillips Petroleum Co. v. U.S. Steel Corp.*, 673 F. Supp. 1278, 1288 (D. Del. 1987), *aff’d*, 865 F.2d 1247 (Fed. Cir. 1989).

and 44-57. Callerame Depo. at 155-156 and 239. Moreover, the proposal fails to show the “steering . . .” limitation of Claims 13, 36, and 53. *Id.* at 243. Thus, the mobile x-ray system offered for sale fails to fully anticipate the claim limitations.

II. THE INVENTION WAS NOT READY FOR PATENTING BEFORE THE CRITICAL DATE

In addition establishing an offer for sale, L-3 must establish that the invention was “ready for patenting” more than one year before the patent’s earliest priority date, to qualify as a prior art sale under the on-sale bar. *Pfaff*, 52 U.S. at 67 (1998). If verification and testing are needed before an inventor can prepare a patent application that complies with the statutory requirements, the invention is not yet “ready for patenting” for the purposes of the statutory on-sale bar. *EZ Dock v. Schafer Systems, Inc.*, 276 F.3d 1347, 1352 (Fed Cir. 2002) (noting that establishing “ready for patenting” requires proof that an invention will work for its intended purpose). Thus, before such further testing and verification, engineering drawings of such an invention are not disclosures capable of triggering an on-sale bar. *See Space Systems/Loral, Inc. v. Lockheed Martin Corp.*, 271 F.3d 1076, 1080-81 (Fed.Cir. 2001) (technical drawings prepared by the inventor prior to testing and verification of the invention failed to establish that the invention was “ready for patenting” for purpose of the on sale bar) *citing Pfaff* at 68 n. 14.

Here, clearly, AS&E’s mobile inspection system was not ready for patenting in January 1994, when AS&E proposed to develop a mobile x-ray inspection system for the Army. **Exh. C** (the Technical Proposal). And it was still merely a proposal at the time of AS&E’s contract with the Army, October 1994. **Exh. D**. Indeed, as late as January 14, 1995 – after the critical date -- AS&E had yet to turn to “major tasks,” such developing a “system conceptual design and specifications.” **Exh. D**, October 1994 Contract at AS&E005022427. Only after AS&E

completed this additional design work in the summer of 1995 was the invention claimed in the '623 patent "ready for patenting" for the purposes of the on sale bar. *Space Systems/Loral, Inc.* at 1081.

Prior to critical date, AS&E consistently stressed the tentative quality of its work on the mobile inspection system. For instance, AS&E's contract with the Army was for a "proposed program to develop a fully-mobile version" of the fixed site inspection system located at Otay Mesa, California. **Exh. D**, October 1994 Contract at AS&E00502402. Clearly, in October 1994, when much design work lay ahead, AS&E's drawings of the proposed mobile inspection system did not reveal an invention ready for patenting. **Exh. A**, Callerame depo. at 170. Thus, the on sale bar does not apply. *Honeywell Int'l Inc.* at 1145 (no on-sale bar where engineering drawings did not demonstrate that the product was ready for patenting).

Indeed, even by the time of the Preliminary Design Review on February 14, 1995, -- two days following the critical date -- the mobile inspection system was not ready for patenting. Minutes from that meeting show that AS&E and the Army identified 23 design "action items" which must be completed prior to determining whether the proposed mobile search system could be made a reality. Significantly, six of the action items required AS&E to undertake additional "technical analysis." **Exh. F** at AS&E06201350. Thus, at his deposition, Dr. Callerame properly questioned the "viability" of the design for the mobile search system considered at the February 14, 2005, preliminary design review. **Exh. A**, Callerame depo. at 170. Until such doubts were resolved through further testing and design development, there could be no on sale bar. *Space Systems/Loral, Inc.* at 1080 (noting that the fact that a concept is ultimately shown to be workable does not retrospectively convert the concept into one that was "ready for patenting" prior to completion of the necessary testing and development).

The viability of the mobile search system design was not known until at least mid-1995, when AS&E built the first-ever mobile search system prototype. No physicist or engineer of any reputation would ever presume to believe that the system would work until it was actually tested. The AS&E scientists and engineers may have hoped that the system would work, but they still needed to test their hypothesis. Such hopes cannot trigger the on sale bar.

Thus, AS&E scheduled tests of the prototype for August and September of that year. AS&E delivered the mobile search system to the Army in the fall of 1995, and post-acceptance testing was completed on November 1995 -- a mere three months prior to the filing of AS&E's provision patent application. **Exh. F** at AS&E06201339. Thus, at no time before the critical date was AS&E's invention "ready for patenting" or "on sale." *Poly-America, L.P.* at 1308 (invention not subject to on sale bar prior to completion of development work necessary to make it useful).

L-3 has not shown that the inventions in AS&E's patents were ready for patenting back in October 1994, when the contract was signed. Nor has L-3 shown that the drawings completed after the October contract and before the critical date fully disclosed and enabled each and every limitation of the claims. Indeed, L-3 glosses over the fact that AS&E was engaged in active design revisions well into 1995, and only then was its invention ready for patenting.

L-3 makes the dubious contention that *Zacharin* stands for the principle that a cost-plus-fixed-fee contract necessarily can serve as an on-sale bar. But that case is distinguishable, as the *Space Systems/Loral* court noted (at 271 F.3d at 1079), because in *Zacharin*, the invention had been reduced to practice before the contract for sale was executed. Here, however, the mobile

x-ray system certainly was not reduced to practice until well after the October 1994 contract and, indeed, after the critical date.⁶

L-3's other primary cite, *Robotic Vision Systems*, is also distinguishable. In that case, the Court concluded that an inventor's detailed enabling disclosure to a co-worker, who reduces the invention to practice prior to the critical date, satisfies the "ready for patenting" prong of the *Pfaff* test. *Robotic Vision Systems v. View Engineering, Inc.*, 249 F.3d 1307, 1313 (Fed Cir 2001). In this case, as we have seen, there was never a detailed enabling disclosure to a co-worker, or anyone else, prior to the critical date. Nor was the invention reduced at that time. Thus, *Robotic Vision Systems* is inapposite.

In addition, L-3's motion must fail because it concedes that there is a factual dispute as to whether the claimed inventions were "ready for patenting." See L-3's Surreply [Docket no. 57] at 14. Whether a claimed invention was "on sale" is a question of law, albeit one dependent on underlying facts. *Sparton Corp. v. U.S.*, ___ F.3d ___ (Fed. Cir. 2005), 2005 WL 451486, at *3 (Fed. Cir. Feb 28, 2005). Thus, disputes of material fact as to whether the claimed inventions were ready for patenting before the critical date will sink a summary judgment motion. *Group One, Ltd. v. Hallmark Cards, Inc.*, 254 F.3d 1041, 1049 (Fed.Cir. 2001) (reversing grant of summary judgment where court below decided disputed question of fact of on-sale bar). Here, L-3 already has conceded that whether the mobile x-ray system was ready for patenting is the

⁶ *Zacharin* does not stand for the proposition that all cost-plus-fixed-fee contracts with the U.S. Government will create an on-sale bar. To the contrary. For example, *Sparton Corp.* deals with a contract to develop a sonobuoy deployment system for the Navy. In that case, the court found that the sonobuoy described in an offer for sale made prior to the critical date differed from the sonobuoy disclosed in the patent and delivered under the contract. Thus, there was no "offer for sale" of the sort necessary to trigger the on sale bar. *Sparton Corp. v. U.S.*, ___ F.3d ___ (Fed. Cir. 2005), 2005 WL 451486, at *3 (Fed. Cir. Feb 28, 2005).

subject of a dispute of material fact. Thus, its motion for summary judgment must be denied. *Id.*⁷

III. THIS COURT HAS NO JURISDICTION TO DECLARE THE CLAIMS INVALID

A declaratory judgment action such as L-3's requires an "actual controversy." 28 U.S.C. § 2201. Absent an actual controversy, a district court lacks subject matter jurisdiction to declare the rights of the parties and must therefore dismiss the case under Fed. R. Civ. P. 12(b)(1). *Hunter Douglas, Inc. v. Harmonic Design, Inc.*, 153 F.3d 1318, 1325, 1326 (Fed. Cir. 1998). The declaratory judgment plaintiff--in this case, L-3 Security--has the burden of proving, by a preponderance of the evidence, the existence of an actual controversy. *Cygnus Therapeutics Systems v. ALZA Corp.*, 92 F.3d 1153, 1158 (Fed. Cir. 1996).

L-3 admits in its summary judgment brief (at footnote 2), that it is seeking to invalidate claims that call for backscatter detection imaging only. *See, e.g., Exh. H*, Technical Specification for Model CX-450M ("The CX-450M sets itself apart from other mobile systems by producing a superior transmission image"). But L-3's mobile x-ray inspection systems do not employ backscatter imaging. They employ transmission imaging only. Thus, AS&E could not have accused, and does not now accuse, L-3 of infringing those claims that require backscatter imaging (or, for that matter, side scatter and forward scatter imaging). The claims implicated in L-3's motion that require some form of scatter imaging are Claims 7, 9, 30, 32 and 48.

⁷ As with any other motion for summary judgment, the material facts must be viewed most favorably to the non-moving party. *Rockwell Int'l Corp. v. United States*, 147 F.3d 1358, 1366-67 (Fed. Cir. 1998) (vacating summary judgment that patent was obvious because district court improperly drew inferences on what the prior art taught against the non-movant/patent owner). Thus, at the least, AS&E's facts presented here create the very dispute that L-3 itself concedes.

Accordingly, because there can be no case or controversy on these “backscatter” claims, this Court has no jurisdiction to declare them invalid. *Hunter Douglas, Inc.* at 1325. *See also Spectronics Corp. v. H.B. Fuller Co., Inc.*, 940 F.2d 631, 637 (Fed. Cir. 1991) (holding that district court properly considered facts raised after the filing of the complaint when it dismissed declaratory judgment action for lack of jurisdiction).

CONCLUSION

For all of these reasons, AS&E respectfully requests that the Court deny L-3’s motion for partial summary judgment.

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