

**UNITED STATES DISTRICT COURT  
EASTERN DISTRICT OF MISSOURI  
EASTERN DIVISION**

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ADVANCED AEROSPACE  
TECHNOLOGIES, INC.,

Plaintiff and  
Counterclaim-Defendant,

v.

THE BOEING COMPANY,

and

INSITU, INC.,

Defendants and  
Counterclaim-Plaintiffs.  
\_\_\_\_\_

Civil Action No. 4:12-cv-226-RWS

**JURY TRIAL DEMANDED**

**FIRST SUPPLEMENTAL COMPLAINT FOR WILLFUL PATENT INFRINGEMENT**

Plaintiff Advanced Aerospace Technologies, Inc. (“AATI”) brings this action under 35 U.S.C. § 1, *et seq.*, including 35 U.S.C. § 271, seeking damages to be determined at trial (single damages are conservatively estimated to exceed \$160 million, and likely will substantially exceed this amount in view of projected increases in demand/sales) and other relief for willful infringement by Insitu, Inc. (“Insitu”) and The Boeing Company (“Boeing”) (collectively, “Defendants”) of certain AATI patents pertaining to unmanned aircraft systems (“UASs”). A UAS consists of an unmanned aerial vehicle (“UAV”) and the associated guidance, launch, and recovery systems. Defendants manufacture, use, and offer for sale UASs that infringe the following AATI patents (collectively, the “AATI Patents”):

- i. U.S. Patent No. 6,874,729 titled “Launch and Recovery System for Unmanned Aerial Vehicles” awarded to AATI by the U.S. Patent and Trademark Office on

April 5, 2005 (“the •729 patent”). A true and correct copy of the •729 patent is attached as Exhibit A.

- ii. U.S. Patent No. 7,097,137 also titled “Launch and Recovery System for Unmanned Aerial Vehicles” awarded to AATI by the U.S. Patent and Trademark Office on August 29, 2006 (“the •137 patent”). A true and correct copy of the •137 patent is attached as Exhibit B.
- iii. U.S. Patent No. 8,167,242 also titled “Launch and Recovery System for Unmanned Aerial Vehicles” awarded to AATI by the U.S. Patent and Trademark Office on May 1, 2012 (“the •242 patent”). A true and correct copy of the •242 patent is attached as Exhibit C.

This action seeks recovery for all of Defendants’ infringement of the AATI Patents (including infringement pursuant to contracts with U.S. Government and non-U.S. Government customers), except that this action does not involve any such infringement by Defendants pursuant to any U.S. Government contract in which the U.S. Government authorized or consented to infringement in accordance with 28 U.S.C. § 1498. AATI has filed a separate action in the U.S. Court of Federal Claims to recover for all Insitu and Boeing use or manufacture of systems and devices covered by the AATI Patents in performing contracts for the United States where the United States authorized and consented to Insitu’s or Boeing’s use or manufacture for purposes of 28 U.S.C. § 1498.

In support of this action, Plaintiff avers as follows:

### **PARTIES**

#### **Advanced Aerospace Technologies, Inc.**

1. AATI is a corporation organized and existing under the laws of the State of Missouri, with its principal place of business at 1165 Bella Vista Dr., St. Louis, Missouri 63131. It is authorized to do business and is doing business in Missouri and in this judicial district.

2. William Randall McDonnell is a member of the McDonnell family of aviation pioneers who founded McDonnell Aircraft. He holds a BSE majoring in Aeronautical

Engineering from Princeton and an MBA from Washington University. Mr. McDonnell is the President and sole owner of AATI.

3. In the 1990s, Mr. McDonnell conducted research directed to effective launch and recovery of UAVs without the use of runways. It is desirable to design a UAV that can avoid detection and be less costly to build and operate, by being small and light. It is also very desirable to design a UAV with long endurance. UAVs can be made smaller, lighter and less expensive, and stay aloft longer, by avoiding the need for the hardware and systems used in runway landings, such as wheels, tires, brakes, nose-wheel steering, landing-gear struts, landing-gear doors, retract/extend actuators, and wheel wells. Such UAVs would also have the additional benefit of not requiring a runway for landing. UAVs that do not require runways offer strategic and tactical advantages because they can be launched and recovered close to the areas of interest. At the same time, any acceptable non-runway alternative must provide for recovery of the UAVs without damaging them and compromising their ability to fly multiple missions.

4. Mr. McDonnell satisfied these needs by creating a UAV retrieval system that catches the UAV in flight. Mr. McDonnell's system includes a vertically suspended line and a UAV having swept (*i.e.*, not straight) wing leading edges. One or both of the wings have a mechanism at the outer edge (variously referred to as a hook, clasp, or cleat) that captures the line and then prevents the aircraft from sliding down the line. This work led to Mr. McDonnell's invention of the methods and systems disclosed and claimed in the AATI Patents.

5. Mr. McDonnell has assigned to AATI all his right, title, and interest in the AATI Patents.

**Insitu, Inc.**

6. Insitu is a corporation organized and existing under the laws of the State of Washington. Historically, Insitu has listed its principal place of business as 118 E. Columbia River Way, Bingen, Washington 98605. In 2008, Boeing acquired Insitu, which now operates as Boeing's wholly-owned subsidiary. Insitu has maintained its operations in the State of Washington, but lists its principal place of business as Boeing's corporate headquarters at 100 North Riverside Plaza, Chicago, Illinois 60606.

7. Insitu transacted business in Missouri and in this judicial district giving rise to the causes of action asserted herein.

8. Insitu is in the business of making UASs, including UAVs and guidance, launch, and retrieval systems. It manufactures its UASs in Bingen, Washington. At issue in this action are at least six types of Insitu UASs that infringe the AATI Patents: ScanEagle, NightEagle, Insight, GeoRanger, ScanEagle Compressed Carriage, and Integrator (collectively, the "Insitu UASs"). The UAVs used in these six UASs are small aircraft launched from land or sea primarily for intelligence gathering, surveillance, and reconnaissance ("ISR").

9. As described more fully below, Insitu includes in these six UASs a retrieval system known as "Skyhook." The Skyhook retrieval system uses a vertical line and a hook at the tip of a swept aircraft wing to catch the vertical cable and retrieve the flying UAV safely into an arresting clasp. The Skyhook retrieval system thus incorporates Mr. McDonnell's inventions and infringes the AATI Patents.

10. Insitu's decision to incorporate Mr. McDonnell's inventions in its systems gave Insitu a major advantage in the industry. With Skyhook, UAVs are far less likely to be damaged upon retrieval than they are with other retrieval systems. Thus, Skyhook-retrieved UAVs

generally are more able to fly multiple missions without need for refurbishment or repair between missions. By contrast, UAVs retrieved with other systems have a higher rate of damage and so are less able to fly back-to-back missions. Mr. McDonnell's invention also leads to a recovery system that can operate from smaller ships or smaller clearings and is faster and easier to operate, transport and deploy. Skyhook enabled Insitu to distinguish its UASs from those of competitors and to capture a significant share of the market for UAS-based ISR services.

### **The Boeing Company**

11. Boeing is a corporation organized and existing under the laws of the State of Delaware, with its principal executive offices at 100 North Riverside Plaza, Chicago, Illinois 60606. Boeing also does business in this judicial district. When Boeing acquired Insitu, it acquired all of Insitu's stock – and assumed all Insitu liabilities, including liability for Insitu's past and current infringement of the AATI Patents.

12. In addition, Boeing itself has infringed and infringes the AATI Patents. As discussed more fully below, Boeing helped Insitu develop, manufacture, offer for sale, and use the Insitu UASs and related services.

### **JURISDICTION AND VENUE**

13. This is an action for willful patent infringement arising under the patent laws of the United States of America, 35 U.S.C. § 1, *et. seq.*, including 35 U.S.C. § 271. This Court has subject-matter jurisdiction pursuant to 28 U.S.C. § 1331 because AATI's claims arise under the laws of the United States, and 28 U.S.C. § 1338, granting district courts original jurisdiction over any civil action regarding patents.

14. Each Defendant is subject to this Court's specific and general personal jurisdiction pursuant to Due Process and/or the Missouri Long-Arm Statute, Mo. Rev. Stat.

§ 506.500 because they transact substantial business in this district, including business that gives rise to the causes of action asserted herein. For example, Boeing's Defense, Space & Security division, which manages, coordinates, and conducts all Boeing aircraft flight activities, including use of Insitu UASs, operates out of Berkeley, Missouri. Insitu officers and employees, including Insitu's then-President Steven M. Sliwa, have frequently visited this district to conduct business with AATI and Boeing.

15. Venue is proper in this judicial district pursuant to 28 U.S.C. §§ 1391 and 1400.

16. Notwithstanding the broad reach of the Court's jurisdiction over patent matters, this Court may not have authority to remedy infringements that occur pursuant to what Plaintiff understands to be a relatively small subset of Defendants' Government contracts: namely, contracts in which the U.S. Government authorized and consented to infringement in accordance with 28 U.S.C. § 1498. That statute provides in relevant part as follows (28 U.S.C. § 1498(a)):

Whenever an invention described in and covered by a patent of the United States is used or manufactured by or for the United States without license of the owner thereof or lawful right to use or manufacture the same, the owner's sole remedy shall be by action against the United States in the United States Court of Federal Claims for the recovery of his reasonable and entire compensation for such use and manufacture. . . .

For the purposes of this section, the use or manufacture of an invention described in and covered by a patent of the United States by a contractor . . . for the Government and with the authorization or consent of the Government, shall be construed as use or manufacture for the United States.

17. The regulations implementing 28 U.S.C. § 1498 limit the U.S. Government's authority to authorize or consent in procurement contracts to contracts pursuant to which the Government accepts delivery of hardware or provides specifications or instructions that require the contractor to infringe. More specifically, 48 C.F.R. §§ 27.201-2 and 52. 227-1 (which implement 28 U.S.C. § 1498 for procurement contracts) limit the U.S. Government's authorization and consent to the following inventions:

[A]ny invention described in and covered by a United States patent –

- (1) Embodied in the structure or composition of any article the delivery of which is accepted by the Government under this contract; or
- (2) Used in machinery, tools, or methods whose use necessarily results from compliance by the Contractor or a subcontractor with (i) specifications or written provisions forming a part of this contract or (ii) specific written instructions given by the Contracting Officer directing the manner of performance.

48 C.F.R. § 52.227-1.

18. There is no authorization and consent by the Government if the foregoing requirements are not met. Based on review of publicly available information, the great majority of Defendants' UAS-related revenues have come from contracts for ISR services which included no hardware deliveries of UASs and no U.S. Government specifications or instructions requiring infringement of the AATI patents. Accordingly, there is and can be no Government authorization and consent to infringement under these contracts.<sup>1</sup>

19. Whether the Government has provided authorization or consent is determined infringement-by-infringement and contract-by-contract through examination of the scope of contract language providing authorization and consent, if any, and the uses claimed to fall within that scope. *See Madey v. Duke Univ.*, 307 F.3d 1351, 1360 (Fed. Cir. 2002) (district court must "explain or demonstrate precisely" how a particular contract authorizes use or manufacture of patented articles for the Government and determine "which uses fall within the scope of the [contract] and which uses are outside that scope"); *Madey v. Duke Univ.*, 413 F. Supp. 2d 601, 616-21 (M.D.N.C. 2006) (analyzing each infringing use and each Government contract to determine which if any infringements occurred pursuant to the authorization or consent of the

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<sup>1</sup> Further, contracts between Defendants and the U.S. Government that are to be performed abroad include no authorization and consent clause. The Government cannot provide authorization and consent for procurement contracts performed and delivered completely outside the United States. *See* 48 C.F.R. § 27.201-2.

Government); *Carrier Corp. v. United States*, 534 F.2d 244, 247-48 (Ct. Cl. 1976) (analyzing scope of Government's authorization and consent clause and contract specifications and concluding Government had not authorized or consented to use of infringing refuse containers).

### **FACTUAL BACKGROUND**

#### **Mr. McDonnell Invented a Retrieval System that Reduces the Likelihood of Damage to UAVs and Improves UAS Capabilities**

20. Over a period of years, Mr. McDonnell investigated methods of launching and retrieving UAVs that did not require runways.

21. In 1997, Mr. McDonnell conceived a UAV retrieval system using a hook arrangement on the UAV's wing to capture a vertical arrestment line. The vertical arrestment line had an inherent capability of absorbing the UAV's kinetic energy, thus decelerating the UAV undamaged.

22. In October 1997, Mr. McDonnell tested his UAV-retrieval system using a remote-controlled airplane with hooks installed at the tips of the leading edges of its swept wings. He used an arrangement of vertical arrestment lines made of flexible nylon connected to a frame made of PVC piping to retrieve the airplane. During testing, Mr. McDonnell successfully captured the airplane repeatedly without damage to the airplane. When the airplane's wing hit the arrestment line, its sweep guided the arrestment line outboard to the hook. The hook then captured the line and the line absorbed the airplane's kinetic energy, thus decelerating the airplane to a safe stop and suspending the aircraft safely above the ground without damaging it.

23. In March 1999, Mr. McDonnell successfully tested a modified version of the retrieval system that used a single vertical arrestment line.

24. Mr. McDonnell's invention solved a key technical challenge in the successful deployment of UAVs without use of runways. While many runway-free retrieval devices were known, such as nets, there was no system that reliably captured the UAV without damage.

25. Being able to retrieve UAVs without a runway improves their utility. UAVs can provide ISR capabilities in bad weather or hostile theaters of operation without putting a pilot at risk. UAVs can also transmit imagery to help troops detect deployment of hostile forces – thereby saving the lives of U.S. service members. Such UAVs are more useful when they can be retrieved without the use of a runway. UAVs that use AATI's recovery approach are also less expensive, lighter, smaller, and harder to detect than runway-dependent aircraft of equivalent capability.

26. In July 1999, Mr. McDonnell filed a U.S. provisional patent application for his UAV-retrieval system. The U.S. Patent and Trademark Office recognized the usefulness, novelty, and inventiveness of Mr. McDonnell's work by issuing the •729, •137, and •242 patents.

#### **Insitu Wrongfully Co-opted Mr. McDonnell's Inventions**

27. In 1999, Mr. McDonnell learned that the predecessor to Insitu, the Insitu Group, was encountering difficulties in reliably retrieving their straight wing UAV. In response, Mr. McDonnell, subject to a nondisclosure agreement between AATI and Insitu, suggested to Insitu's founder and chief technology officer, Tad McGeer, that Insitu should use a swept wing rather than the straight wing aircraft that Insitu had been using (as shown in Insitu's subsequent U.S. Patent No. 6,264,140 ("the •140 patent")). Mr. McDonnell explained that a swept wing would more reliably sweep the arrestment line into the hook mounted on the outboard part of the wing. Insitu adopted Mr. McDonnell's swept wing approach without advising Mr. McDonnell they were doing so and without any attribution or contribution to Mr. McDonnell or AATI.

28. In late 2000, Mr. McDonnell learned that the Insitu Group was still encountering difficulties with their hook engaging the recovery line that were so significant that they threatened the continued viability of the company. In response, Mr. McDonnell sent Insitu a copy of his then-pending patent application which disclosed the use of a special hook design for catching UAVs. Insitu had been testing their recovery system without achieving reliability for more than a year and a half before Mr. McDonnell sent them his hook design. The solution that Mr. McDonnell revealed to Insitu was the use of a two-part hook for capturing the arrestment line. The hook had a narrowing slot that received the arrestment line and a two-part line securing mechanism that first confined the line and then clamped down on the line to prevent the aircraft from dropping down the line. This was a marked improvement over the design Insitu had been using (as revealed in its •140 patent). After reviewing Mr. McDonnell's patent application, Insitu modified its own design to include a two-part capture mechanism, and filed its own patent application for a two-part hook design, which resulted in Insitu's U.S. Patent 7,059,564 ("the •564 patent"). Again, Insitu adopted Mr. McDonnell's technology without advising Mr. McDonnell they were doing so and without any attribution or contribution to Mr. McDonnell or AATI. Insitu's •564 patent claims AATI's swept wing approach in combination with a two-part hook design.

29. Thus, based on Mr. McDonnell's successes, Insitu continued to pursue a retrieval system using a vertical arrestment line – and ultimately, without advising Mr. McDonnell, Insitu misappropriated critical features of Mr. McDonnell's UAV retrieval solution (including the swept wing and special hook with a two-part capture mechanism) for use on the Insitu UASs.

30. In obtaining their own patents, Insitu did not reference Mr. McDonnell's prior work or contributions. Insitu adopted a practice of citing a published version of Mr.

McDonnell's application as a "foreign reference" which did not list Mr. McDonnell's name or AATI's name even after the AATI Patents became available for citation. Insitu also adopted a practice of citing Mr. McDonnell's published application as one of more than one hundred other references to further obscure its significance.

**Boeing Partnered with, and  
Then Acquired, Insitu and Its Infringing Business**

31. Mr. McDonnell shared details of his retrieval system directly with Boeing engineers as early as 2000.

32. In 2002, after Insitu had incorporated Mr. McDonnell's UAV-retrieval system into the Insitu UASs, Boeing entered into a partnership with Insitu to market and further develop the UAS that matured into the ScanEagle UAS. Insitu and Boeing marketed, sold, and used the ScanEagle .

33. In 2008, Boeing acquired Insitu for a reported amount of approximately \$400 million. At that time, Boeing estimated the market for unmanned aircraft could eventually grow to \$100 billion.

**Defendants Knowingly and Willfully Infringe Mr. McDonnell's  
UAV Retrieval System, which Enables Them to Dominate the Market**

34. Despite Defendants' awareness of the AATI Patents and use of AATI's claimed technology, Defendants have not desisted from unauthorized use or manufacture of that technology – but instead have proceeded in willful disregard for AATI's legal rights.

35. Insitu knowingly infringes the AATI patents. Since discovery of Insitu's infringement, AATI has tried repeatedly to obtain the compensation owed to it by Insitu. These efforts included communications and meetings between Mr. McDonnell and Mr. Sliwa in this district.

36. During the course of these communications and meetings, Mr. Sliwa carried on a deceptive campaign of intentionally undervaluing Mr. McDonnell's inventions in the hopes of obtaining rights to that technology at a small fraction of their true value. Mr. Sliwa also tried to induce Mr. McDonnell and AATI to enter into agreements that merely appeared to provide significant compensation, but in reality were intended to obtain the rights for little or no compensation. For example, in one Insitu proposal, compensation was based on sales of aircraft and recovery systems. It later became clear that Insitu made this offer because it had decided to sell ISR services rather than UAS hardware. Thus, if AATI had agreed to Insitu's proposal, it would have received nothing.

37. Insitu also improperly induced AATI and Mr. McDonnell into delaying enforcement of the AATI Patents. On March 21, 2008, Insitu asked AATI to enter into a 120-day standstill agreement in which Insitu committed to "enter into good faith negotiations to resolve any and all disputes between them." In reality, Insitu had no intention of participating in good-faith negotiations with AATI. Instead, Insitu wanted 120 days to negotiate the sale of Insitu to Boeing. And on July 24, 2008, a few days after the standstill ended, Boeing's acquisition of Insitu was publicly announced.

38. On July 31, 2008, more than a month before Boeing closed the Insitu acquisition, AATI expressly advised Boeing in writing of Insitu's unauthorized and pervasive use of AATI's patented technology. Boeing nevertheless completed the acquisition and continued to procure and use the Insitu UASs within the United States, its territories, and possessions and to combine elements of the Insitu UASs into completed, infringing systems outside of the United States. Prior to July 31, 2008, Boeing knew or should have known that Insitu was building its business

on infringing technology misappropriated from Mr. McDonnell and AATI. Boeing has done nothing to abate Insitu's or its own infringement.

39. Due in large measure to the unauthorized use and manufacture of Mr. McDonnell's and AATI's technology, Insitu and Boeing have enjoyed a great amount of success in the UAS market. Based on publicly available sources, Defendants' annual sales of infringing Insitu UASs and services exceed \$400 million – and, in view of projected increases in demand/sales, are expected to be at or substantially above that level for many years to come.

40. Defendants' sales include ISR services and/or the Insitu UASs' hardware to the U.S. Government and non-U.S. Government entities (e.g., foreign nations and commercial buyers).

#### **COUNT I:**

##### **Direct Infringement of U.S. Patent No. 6,874,729 by Insitu and Boeing**

41. Each and every allegation set forth in the above-numbered paragraphs is hereby incorporated by reference just as if it were explicitly set forth hereunder.

42. AATI is the assignee and the sole holder of all right, title, and interest in and to the •729 patent, including all rights to enforce the •729 patent and collect past and future damages for infringement.

43. On information and belief, in connection with developing or offering UASs or services to, or in performing agreements with, U.S. Government and non-U.S. Government customers, Insitu has been, and now is, directly infringing the •729 patent by making, using, offering for sale, and/or selling within the United States the Insitu UASs, and all like systems and related services, infringing one or more claims of the •729 patent.

44. On information and belief, in connection with developing or offering UASs or

services to, or in performing agreements with, U.S. Government and non-U.S. Government customers, Insitu has been, and now is, directly infringing the •729 patent by supplying or causing to be supplied in or from the United States all or a substantial portion of what it knows to be the components of the invention claimed in the •729 patent, where such components are uncombined in whole or in part, in such manner as to actively and intentionally induce the combination of such components outside of the United States in a manner that it knew and knows would infringe the •729 patent if such combination occurred within the United States.

45. On information and belief, in connection with developing or offering UASs or services to, or in performing agreements with, U.S. Government and non-U.S. Government customers, Insitu has been, and now is, directly infringing the •729 patent by supplying or causing to be supplied in or from the United States what it knows to be a component of the invention claimed in the •729 patent that is especially made or especially adapted for use in the invention and not a staple article or commodity of commerce suitable for substantial noninfringing use, where such component is uncombined in whole or in part, knowing that such component is so made or adapted and intending that such component will be combined outside of the United States in a manner that would infringe the •729 patent if such combination occurred within the United States.

46. On information and belief, in connection with developing or offering UASs or services to, or in performing agreements with, U.S. Government and non-U.S. Government customers, Boeing has been, and now is, directly infringing the •729 patent by making, using, offering for sale, and/or selling within the United States, its territories, and possessions (including without limitation, U.S. Navy vessels inside and outside the territorial waters of the United States and U.S. military bases worldwide), the Insitu UASs, and all like systems and

related services, infringing one or more claims of the •729 patent.

47. On information and belief, in connection with developing or offering UASs or services to, or in performing agreements with, U.S. Government and non-U.S. Government customers, Boeing has been, and now is, directly infringing the •729 patent by supplying or causing to be supplied in or from the United States all or a substantial portion of what it knows to be the components of the invention claimed in the •729 patent, where such components are uncombined in whole or in part, in such manner as to actively and intentionally induce the combination of such components outside of the United States in a manner that it knew and knows would infringe the •729 patent if such combination occurred within the United States.

48. On information and belief, in connection with developing or offering UASs or services to, or in performing agreements with, U.S. Government and non-U.S. Government customers, Boeing has been, and now is, directly infringing the •729 patent by supplying or causing to be supplied in or from the United States what it knows to be a component of the invention claimed in the •729 patent that is especially made or especially adapted for use in the invention and not a staple article or commodity of commerce suitable for substantial noninfringing use, where such component is uncombined in whole or in part, knowing that such component is so made or adapted and intending that such component will be combined outside of the United States in a manner that would infringe the •729 patent if such combination occurred within the United States.

49. AATI has been, and continues to be, damaged by Insitu's and Boeing's direct infringement of the •729 patent.

**COUNT II:**

**Inducement of Infringement of U.S. Patent No. 6,874,729 by Insitu**

50. Each and every allegation set forth in the above-numbered paragraphs is hereby incorporated by reference just as if it were explicitly set forth hereunder.

51. On information and belief, in connection with developing or offering UASs or services to, or in performing agreements with, U.S. Government and non-U.S. Government customers, Insitu has been, and now is, actively and knowingly inducing Boeing's direct infringement of the •729 patent with the specific intent of infringing the •729 patent, and so is liable as an infringer under 35 U.S.C. § 271(b).

52. AATI has been, and continues to be, damaged by Insitu's active inducement of Boeing's direct infringement of the •729 patent.

**COUNT III:**

**Contributory Infringement of U.S. Patent No. 6,874,729 by Insitu**

53. Each and every allegation set forth in the above-numbered paragraphs is hereby incorporated by reference just as if it were explicitly set forth hereunder.

54. On information and belief, in connection with developing or offering UASs or services to, or in performing agreements with, U.S. Government and non-U.S. Government customers, Insitu is contributorily infringing the •729 patent by offering to sell or selling within the United States, its territories, and possessions (including without limitation, U.S. Navy vessels inside and outside the territorial waters of the United States and U.S. military bases worldwide) what it knows to be a component of the system claimed in the •729 patent or for use in practicing the process claimed in the •729 patent, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of the •729 patent,

and not a staple article or commodity of commerce suitable for substantial noninfringing use.

55. Insitu is thus liable as a contributory infringer under 35 U.S.C. § 271(c).

56. AATI has been, and continues to be, damaged by Insitu's contributory infringement of the •729 patent.

**COUNT IV:**

**Direct Infringement of U.S. Patent No. 7,097,137 by Insitu and Boeing**

57. Each and every allegation set forth in the above-numbered paragraphs is hereby incorporated by reference just as if it were explicitly set forth hereunder.

58. AATI is the assignee and the sole holder of all right, title, and interest in and to the •137 patent, including all rights to enforce the •137 patent and collect past and future damages for infringement.

59. On information and belief, in connection with developing or offering UASs or services to, or in performing agreements with, U.S. Government and non-U.S. Government customers, Insitu has been, and now is, directly infringing the •137 patent by making, using, offering for sale, and/or selling within the United States the Insitu UASs, and all like systems and related services, infringing one or more claims of the •137 patent.

60. On information and belief, in connection with developing or offering UASs or services to, or in performing agreements with, U.S. Government and non-U.S. Government customers, Insitu has been, and now is, directly infringing the •137 patent by supplying or causing to be supplied in or from the United States all or a substantial portion of what it knows to be the components of the invention claimed in the •137 patent, where such components are uncombined in whole or in part, in such manner as to actively and intentionally induce the combination of such components outside of the United States in a manner that it knew and

knows would infringe the •137 patent if such combination occurred within the United States.

61. On information and belief, in connection with developing or offering UASs or services to, or in performing agreements with, U.S. Government and non-U.S. Government customers, Insitu has been, and now is, directly infringing the •137 patent by supplying or causing to be supplied in or from the United States what it knows to be a component of the invention claimed in the •137 patent that is especially made or especially adapted for use in the invention and not a staple article or commodity of commerce suitable for substantial noninfringing use, where such component is uncombined in whole or in part, knowing that such component is so made or adapted and intending that such component will be combined outside of the United States in a manner that would infringe the •137 patent if such combination occurred within the United States.

62. On information and belief, in connection with developing or offering UASs or services to, or in performing agreements with, U.S. Government and non-U.S. Government customers, Boeing has been, and now is, directly infringing the •137 patent by making, using, offering for sale, and/or selling within the United States, its territories, and possessions (including without limitation, U.S. Navy vessels inside and outside the territorial waters of the United States and U.S. military bases worldwide), the Insitu UASs, and all like systems and related services, infringing one or more claims of the •137 patent.

63. On information and belief, in connection with developing or offering UASs or services to, or in performing agreements with, U.S. Government and non-U.S. Government customers, Boeing has been, and now is, directly infringing the •137 patent by supplying or causing to be supplied in or from the United States all or a substantial portion of what it knows to be the components of the invention claimed in the •137 patent, where such components are

uncombined in whole or in part, in such manner as to actively and intentionally induce the combination of such components outside of the United States in a manner that it knew and knows would infringe the •137 patent if such combination occurred within the United States.

64. On information and belief, in connection with developing or offering UASs or services to, or in performing agreements with, U.S. Government and non-U.S. Government customers, Boeing has been, and now is, directly infringing the •137 patent by supplying or causing to be supplied in or from the United States what it knows to be a component of the invention claimed in the •137 patent that is especially made or especially adapted for use in the invention and not a staple article or commodity of commerce suitable for substantial noninfringing use, where such component is uncombined in whole or in part, knowing that such component is so made or adapted and intending that such component will be combined outside of the United States in a manner that would infringe the •137 patent if such combination occurred within the United States.

65. AATI has been, and continues to be, damaged by Insitu's and Boeing's direct infringement of the •137 patent.

#### **COUNT V:**

##### **Inducement of Infringement of U.S. Patent No. 7,097,137 by Insitu**

66. Each and every allegation set forth in the above-numbered paragraphs is hereby incorporated by reference just as if it were explicitly set forth hereunder.

67. On information and belief, in connection with developing or offering UASs or services to, or in performing agreements with, U.S. Government and non-U.S. Government customers, Insitu has been, and now is, actively and knowingly inducing Boeing's direct infringement of the •137 patent with the specific intent of infringing the •137 patent, and so is

liable as an infringer under 35 U.S.C. § 271(b).

68. AATI has been, and continues to be, damaged by Insitu's active inducement of Boeing's direct infringement of the •137 patent.

**COUNT VI:**

**Contributory Infringement of U.S. Patent No. 7,097,137 by Insitu**

69. Each and every allegation set forth in the above-numbered paragraphs is hereby incorporated by reference just as if it were explicitly set forth hereunder.

70. On information and belief, in connection with developing or offering UASs or services to, or in performing agreements with, U.S. Government and non-U.S. Government customers, Insitu is contributorily infringing the •137 patent by offering to sell or selling within the United States, its territories, and possessions (including without limitation, U.S. Navy vessels inside and outside the territorial waters of the United States and U.S. military bases worldwide) what it knows to be a component of the system claimed in the •137 patent or for use in practicing the process claimed in the •137 patent, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of the •137 patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use.

71. Insitu is thus liable as a contributory infringer under 35 U.S.C. § 271(c).

72. AATI has been, and continues to be, damaged by Insitu's contributory infringement of the •137 patent.

**COUNT VII:**

**Direct Infringement of U.S. Patent No. 8,167,242 by Insitu and Boeing**

73. Each and every allegation set forth in the above-numbered paragraphs is hereby incorporated by reference just as if it were explicitly set forth hereunder.

74. AATI is the assignee and the sole holder of all right, title, and interest in and to the •242 patent, including all rights to enforce the •242 patent and collect past and future damages for infringement.

75. On information and belief, in connection with developing or offering UASs or services to, or in performing agreements with, U.S. Government and non-U.S. Government customers, Insitu has been, and now is, directly infringing the •242 patent by making, using, offering for sale, and/or selling within the United States the Insitu UASs, and all like systems and related services, infringing one or more claims of the •242 patent.

76. On information and belief, in connection with developing or offering UASs or services to, or in performing agreements with, U.S. Government and non-U.S. Government customers, Insitu has been, and now is, directly infringing the •242 patent by supplying or causing to be supplied in or from the United States all or a substantial portion of what it knows to be the components of the invention claimed in the •242 patent, where such components are uncombined in whole or in part, in such manner as to actively and intentionally induce the combination of such components outside of the United States in a manner that it knew and knows would infringe the •242 patent if such combination occurred within the United States.

77. On information and belief, in connection with developing or offering UASs or services to, or in performing agreements with, U.S. Government and non-U.S. Government customers, Insitu has been, and now is, directly infringing the •242 patent by supplying or causing to be supplied in or from the United States what it knows to be a component of the invention claimed in the •242 patent that is especially made or especially adapted for use in the invention and not a staple article or commodity of commerce suitable for substantial noninfringing use, where such component is uncombined in whole or in part, knowing that such

component is so made or adapted and intending that such component will be combined outside of the United States in a manner that would infringe the •242 patent if such combination occurred within the United States.

78. On information and belief, in connection with developing or offering UASs or services to, or in performing agreements with, U.S. Government and non-U.S. Government customers, Boeing has been, and now is, directly infringing the •242 patent by making, using, offering for sale, and/or selling within the United States, its territories, and possessions (including without limitation, U.S. Navy vessels inside and outside the territorial waters of the United States and U.S. military bases worldwide), the Insitu UASs, and all like systems and related services, infringing one or more claims of the •242 patent.

79. On information and belief, in connection with developing or offering UASs or services to, or in performing agreements with, U.S. Government and non-U.S. Government customers, Boeing has been, and now is, directly infringing the •242 patent by supplying or causing to be supplied in or from the United States all or a substantial portion of what it knows to be the components of the invention claimed in the •242 patent, where such components are uncombined in whole or in part, in such manner as to actively and intentionally induce the combination of such components outside of the United States in a manner that it knew and knows would infringe the •242 patent if such combination occurred within the United States.

80. On information and belief, in connection with developing or offering UASs or services to, or in performing agreements with, U.S. Government and non-U.S. Government customers, Boeing has been, and now is, directly infringing the •242 patent by supplying or causing to be supplied in or from the United States what it knows to be a component of the invention claimed in the •242 patent that is especially made or especially adapted for use in the

invention and not a staple article or commodity of commerce suitable for substantial noninfringing use, where such component is uncombined in whole or in part, knowing that such component is so made or adapted and intending that such component will be combined outside of the United States in a manner that would infringe the •242 patent if such combination occurred within the United States.

81. AATI has been, and continues to be, damaged by Insitu's and Boeing's direct infringement of the •242 patent.

**COUNT VIII:**

**Inducement of Infringement of U.S. Patent No. 8,167,242 by Insitu**

82. Each and every allegation set forth in the above-numbered paragraphs is hereby incorporated by reference just as if it were explicitly set forth hereunder.

83. On information and belief, in connection with developing or offering UASs or services to, or in performing agreements with, U.S. Government and non-U.S. Government customers, Insitu has been, and now is, actively and knowingly inducing Boeing's direct infringement of the •242 patent with the specific intent of infringing the •242 patent, and so is liable as an infringer under 35 U.S.C. § 271(b).

84. AATI has been, and continues to be, damaged by Insitu's active inducement of Boeing's direct infringement of the •242 patent.

**COUNT IX:**

**Contributory Infringement of U.S. Patent No. 8,167,242 by Insitu**

85. Each and every allegation set forth in the above-numbered paragraphs is hereby incorporated by reference just as if it were explicitly set forth hereunder.

86. On information and belief, in connection with developing or offering UASs or

services to, or in performing agreements with, U.S. Government and non-U.S. Government customers, Insitu is contributorily infringing the •242 patent by offering to sell or selling within the United States, its territories, and possessions (including without limitation, U.S. Navy vessels inside and outside the territorial waters of the United States and U.S. military bases worldwide) what it knows to be a component of the system claimed in the •242 patent or for use in practicing the process claimed in the •242 patent, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of the •242 patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use.

87. Insitu is thus liable as a contributory infringer under 35 U.S.C. § 271(c). AATI has been, and continues to be, damaged by Insitu's contributory infringement of the •242 patent.

#### **PRAYER FOR RELIEF**

WHEREFORE, AATI prays that process and due form of law issue to the Defendants, requiring them to appear and answer the allegations of this First Supplemental Complaint, and that after due proceedings, there be judgment in favor of AATI and against the Defendants, providing the following remedies to AATI:

- A. Entry of judgment that the Defendants are infringing and have infringed the •729, •137, and •242 patents, and that such infringement has been willful and deliberate;
- B. Entry of judgment for damages in an amount to be determined at trial (single damages are conservatively estimated to exceed \$160 million, and likely will substantially exceed this amount in view of projected increases in demand/sales), plus interest and costs, to compensate AATI for the Defendants' direct and indirect patent infringement;

- C. Find this case exceptional under 35 U.S.C. § 285, thereby trebling damages and awarding reasonable attorney fees;
- D. Such other relief as the Court may deem appropriate.

**DEMAND FOR JURY TRIAL**

AATI requests a trial by jury pursuant to Rule 38 of the Federal Rules of Civil Procedure and Local Rule 2.04.

Date: May 2, 2012

Respectfully submitted,

**ARENT FOX, LLP**

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