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Attorneys for Plaintiffs

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MONTANA
MISSOULA DIVISION

GARMIN INTERNATIONAL, INC. and GARMIN USA, INC., Plaintiffs, v. UAVIONIX, CORP., Defendant.	Case No. COMPLAINT FOR PATENT INFRINGEMENT AND JURY DEMAND

Plaintiffs, Garmin International, Inc. and Garmin USA, Inc. ("Garmin"), by and through its counsel, for their Complaint against Defendant, uAvionix., Corp. ("uAvionix"), hereby state and allege as follows:

INTRODUCTION

1. Garmin is one of the world's leading providers of aircraft avionics. Its products are commonly found across all general aviation aircraft, ranging from small home-built propeller planes to large, million-dollar business jets. Garmin's innovation in the avionics space is well known in the industry and has led to countless industry accolades in recent years. For example, Garmin was awarded top honors in 2017 for product support from *Aviation International News*—an award it has received for 14 years straight. Garmin also was named the 2018 top avionics manufacturer with the best rated product support for the 14th year in a row from *Professional Pilot*. In addition, Embraer has recognized Garmin nine times since 2010 with its Top Supplier award. Garmin's engineers have relentlessly pursued technology and innovation that is fundamentally changing the aviation industry. Their hard work has put Garmin at the leading edge of the next generation of aviation technology that will soon be implemented by the Federal Aviation Administration ("FAA").

2. One of those next generation changes from the FAA is the implementation of Automatic Dependent Surveillance-Broadcast ("ADS-B"). ADS-B was developed to fundamentally change the nation's airspace to become

more efficient and more technologically advanced. ADS-B brings a much-needed modernization to the aviation industry, especially for the general aviation sector, by bringing precise aircraft location information to both air traffic controllers and other airplanes. ADS-B, which transmits GPS location signals to air traffic controllers and other airplanes, is the most accurate surveillance system the aviation industry has ever seen and will enable aircraft to fly more direct routes while easing congestion and saving time. Because of the benefits of ADS-B, the FAA will require most aircraft to be equipped with ADS-B Out by January 1, 2020. (14 C.F.R. 91.225). The problem with this requirement is the installation of ADS-B in many older aircraft is both time consuming and expensive.

3. In 2009, Garmin developed and patented a low cost and easy-to-install self-configuring ADS-B system. Garmin's invention—seen in U.S. Patent No. 8,102,301 ("the '301 Patent")—reduces or eliminates much of the expense and burdens associated with transitioning aircraft to an ADS-B compliant system and radically improves communication and safety for small aircrafts. *See* Exhibit A. Garmin currently sells its patented invention—including a feature it refers to as AutoSquawk—as part of its GDL-82, GDL-84 and GDL-88 systems. This patented technology allows aircraft owners the ability to easily afford and install the essential ADS-B systems that were previously too expensive. Garmin's patented technology also eases the burden on pilots by automatically collecting and

broadcasting the required ADS-B information from an aircraft's pre-existing transponder system.

4. With the FAA's mandate, timing is of critical importance in the industry. The FAA estimates that approximately 100,000 to 160,000 aircraft will need to be equipped with ADS-B by 2020.[1] Garmin's patented solution provides a convenient and less expensive way for older aircraft to comply with the 2020 ADS-B deadline. With the size of the market and the rapidly approaching deadline, companies quickly rushed into the space to try to build less expensive compliant systems that compete with Garmin's patented systems. Recognizing the ground-breaking nature of Garmin's patent that provides a low-cost ADS-B compliant system at least one company has sought to license the '301 Patent. But because Garmin does not license this technology, this company built a different, and ultimately more expensive, product.

5. Despite the industry recognition of Garmin's patented technology, one company – uAvionix – has taken Garmin's patented technology without its permission. The relationship between Garmin and uAvionix began with discussions relating to drones (e.g., unmanned aerial vehicles). Over time, those

1 https://www.faa.gov/nextgen/where_we_are_now/nextgen_update/progress_and_plans/adsb/

discussions changed, and Garmin eventually learned that uAvionix had taken its patented ADS-B technology without permission.

6. Garmin sought to resolve this dispute without resorting to litigation and informed uAvionix of the '301 Patent. Over the course of a number of months Garmin repeatedly asked for an explanation from uAvionix as to why its products did not infringe Garmin's '301 Patent. uAvionix dragged its feet, hid its true intentions from Garmin, and wrongly contended it designed around the '301 Patent. Despite Garmin's repeated requests, uAvionix refused to share its purported new design. Eventually, Garmin purchased its own uAvionix "redesigned" product to determine for itself whether uAvionix had actually made any changes. Despite its assurances, it had not. uAvionix's disregard of Garmin's patent rights left it with no other recourse but to file this lawsuit.

THE PARTIES

7. Garmin International, Inc.[2] ("Garmin International") owns all right, title, and interest in the '301 Patent. Garmin International is a Kansas corporation with its principal place of business at 1200 East 151st Street, Olathe, KS 66062. Garmin International sells the GDL-82, GDL-84, and GDL-88 systems to Garmin's Original Equipment Manufacturer ("OEM") customers and competes directly with uAvionix.

[2] "Garmin" refers to Garmin International, Inc. and Garmin USA, as well as other Garmin-affiliated companies.

8. The inventor of the '301 Patent, along with many of the engineers responsible for working on products relating to the patented ADS-B technology are employees of Garmin AT, Inc. ("Garmin AT"). Garmin AT is a subsidiary of Garmin International and is an Oregon corporation with a principal place of business at 2345 Turner Road SE, Salem, Oregon 97203. Garmin's GDL-82, GDL-84 and GDL-88 systems, which utilize the technology of the '301 Patent, are manufactured in Oregon. Other engineers responsible for working on Garmin's aviation products incorporating the patented technology are employees of Garmin International.

9. Garmin USA, Inc. ("Garmin USA") is a Kansas corporation with its principal place of business at 1200 East 151st Street, Olathe, KS 66062. Garmin USA sells the GDL-82, GDL-84 and GDL-88 systems to Garmin's dealers and distributors and competes directly with uAvionix.

10. On information and belief, Defendant uAvionix, Corp. is a Delaware corporation having a principal place of business at 300 Pine Needle Lane, Bigfork, Montana 59911. uAvionix may be served via its registered agent, c/o the Corporation Trust Company, 1209 Orange Street, Wilmington, Delaware 19801.

JURISDICTION AND VENUE

11. This is a complaint for a patent infringement arising under the patent laws of the United States, 35 U.S.C. § 1 *et seq.* This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

12. This Court has personal jurisdiction over uAvionix, Inc. because its principal place of business is located in Bigfork, Montana. For example, on the uAvionix website, it identifies its address at 300 Pine Needle Lane, Bigfork, Montana 59911, thus uAvionix has a regular and established place of business within the District. Further, uAvionix has placed one or more infringing products into the stream of commerce with the expectation that they will be used by consumers in the District by marketing, manufacturing, offering for sale, importing, and/or selling its infringing products within this District and has caused injury to Garmin within this District, and has, therefore, purposely availed itself of the laws of this District. Additionally, uAvionix has sold and shipped infringing products from within the District. *See* Exhibit B.

13. Venue is proper in this District pursuant to 28 U.S.C. § 1400(b) because uAvionix resides in this District, has a regular and established place of business in this district (as described above), and has committed acts of infringement in this District. Additionally, Garmin purchased uAvionix's echoUAT and skyBeacon from uAvionix's publicly available website, and those products were shipped from this District. *See* Exhibit B.

ALLEGATIONS

14. Garmin is a global innovator and leader in navigation, including in the auto, aviation, marine, outdoor, and fitness spaces. Within its aviation segment, Garmin develops, manufactures, and sells a broad range of aviation equipment and

systems, including GPS systems, transponders, flight displays, autopilots, radar systems, and ADS-B systems.

15. Garmin depends on its innovation and development of its own patented technology to protect its proprietary technology, including in its aviation segment. Garmin's ability to compete depends in part on the ability to enforce its intellectual property rights to protect its market share.

16. Garmin's '301 Patent is industry changing because aircraft owners previously had no automated ADS-B solutions at an affordable price. In the past, when a typical ADS-B system was added to the aircraft, manual input from the flight crew (e.g., the pilot or co-pilot) was necessary to provide required information, such as Mode 3/A "Squawk" code, IDENT identification, altitude, and other information. This needlessly increased the workload of the flight crew. The only other alternative was a wired data interface between the ADS-B system and other aircraft avionics, such as a dedicated control panel or radar transponder. In this alternative, the controlling avionics must be pre-configured to support the wired data interface, which, in older aircraft, required very expensive retrofitting. Garmin's patented invention recognized and solved this problem, making a sub-$2,000 solution available to aircraft owners.

17. Garmin filed the application that issued as the '301 Patent on December 18, 2009. The application ultimately issued as the '301 Patent on January 24, 2012.

18. Garmin is the assignee and owner of all U.S. Patent rights in the '301 Patent, with ownership of all substantial rights, including the right to exclude others from making, using, selling, offering for sale, and importing the invention of the '301 Patent, and to sue and recover damages for the past, present, and future infringement thereof. A true and correct copy of the '301 Patent is attached as Exhibit A.

19. uAvionix originally approached Garmin with promises of new technology in the drone market. Garmin engaged in extensive communications and meetings with uAvionix throughout 2016 and 2017.

20. Ultimately, Garmin realized that uAvionix had not developed any new technology. Garmin also realized that uAvionix had built an ADS-B product that was practicing the claimed invention of the '301 Patent. At that point, Garmin pivoted the discussions to amicably resolve uAvionix's infringement of the '301 Patent.

21. Obviously, uAvionix was aware of Garmin's '301 Patent as of December 12, 2017, because uAvionix claimed it was designing around the '301 Patent. The parties discussed this issue at length. Ultimately, and despite repeated requests from Garmin, uAvionix refused to share any information on its design based on "advice of IP counsel."

22. Before proceeding with this lawsuit, Garmin purchased the uAvionix products and confirmed that they infringed the '301 Patent.

23. Garmin made major efforts to resolve this issue before resorting to litigation. However, uAvionix's refusal to address, let alone resolve, uAvionix's infringement of the '301 Patent, precipitated the present lawsuit.

24. Fully aware of Garmin's patent rights and communications regarding uAvionix's infringement of the '301 Patent, uAvionix released the EchoUAT and skyBeacon[3] products. uAvionix currently makes, uses, sells, offers to sell, and/or imports the infringing skyBeacon and EchoUAT products and they are available to be installed within the experimental aircraft market. On information and belief, uAvionix has plans to soon expand to the larger certified general aviation market once it receives certification for its products. If uAvionix receives certification so that it may enter the general aviation market, Garmin will face increased competition and damages.

25. The EchoUAT and skyBeacon products, while primarily intended for the experimental aircraft market, are not merely for amusement, to satisfy idle curiosity, or for strictly philosophical inquiry; but instead, have a definite, cognizable, and not insubstantial commercial purpose.

26. uAvionix directly competes with Garmin in the aviation industry, where uAvionix sells the only other sub $2,000 ADS-B compliant system on the

[3] uAvionix has a third product, the TailBeacon, not yet released that will operate similarly to the skyBeacon and will meet the 2020 ADS-B mandate. https://www.flyingmag.com/uavionix-introduces-new-low-cost-ads-b-products

market other than Garmin's patented GDL-82, GDL-84, and GDL-88 products. uAvionix even advertises the similarities between Garmin's products and uAvionix's products.[4] The skyBeacon and EchoUAT will directly compete with Garmin's GDL-82, GDL-84, and GDL-88.

27. Not only did uAvionix copy Garmin's patented invention but it also sought to patent its "purported invention." Tellingly, uAvionix doubled down and filed patent application U.S. Pub. No. 2018/0100914, largely copying the teachings in the '301 Patent. In fact, uAvionix references the '301 Patent, contending it is "related." uAvionix does not explain how the '301 Patent's claimed invention differs from the patent application in any meaningful way.

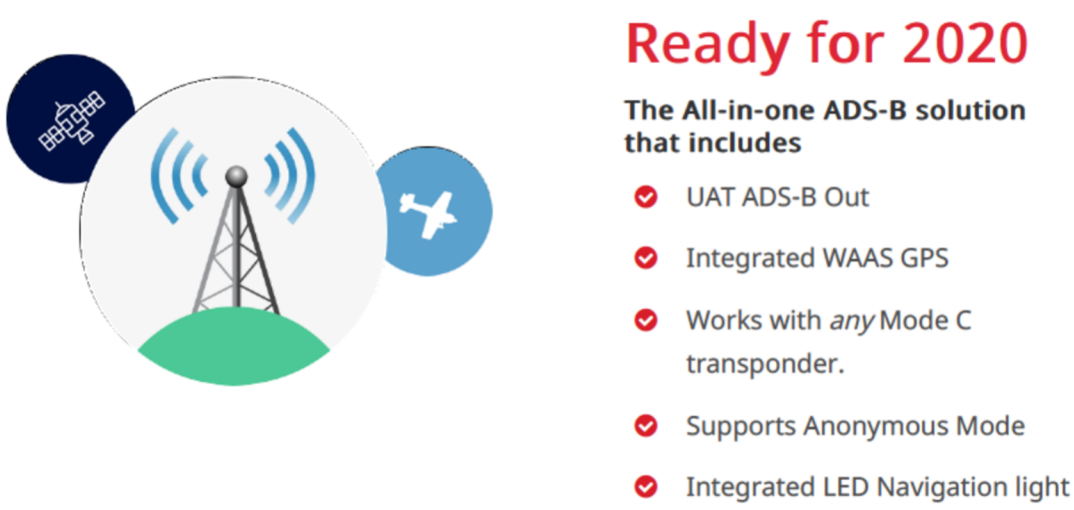
28. Garmin has made every attempt to resolve this dispute prior to filing suit, but uAvionix's continued failure to respect Garmin's intellectual property leaves Garmin with no choice but to protect it rights through litigation.

SKYBEACON

29. The uAvionix skyBeacon infringes at least Claim 6 of the '301 Patent. Specifically, the skyBeacon is an ADS-B transceiver:

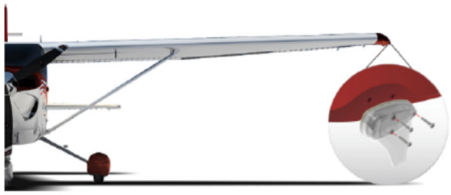
[4] https://www.uavionix.com/news/aviation-consumer-news-budget-ads-b-uavionix-garmin-lead/

See Exhibit C (https://www.uavionix.com/products/skybeacon/)



Id.

30. The skyBeacon is configured to be mounted in an aircraft:



Easy Installation

Installation is as simple as replacing the aircraft position light.

- No airframe modifications or additional antennas are required.
- Transponder data is provided via the aircraft wiring system using the Power Transcoder.
- skyBeacon uses the existing mounting location, breaker, and

Id.

31. The skyBeacon includes a receiver operable to periodically receive transmissions from a transponder of the aircraft:

> **Overview**
> SkyBeacon is a 2020 compliant, near zero-install, Class B1S ADS-B UAT transmitter integrated into a wing tip position light. An internal wireless monitor decodes replies from legacy Mode C transponders for maximum retro-fit capability.

See Exhibit D (skyBeacon Manual) at p. 1.

32. The skyBeacon's receiver receives transmissions containing information that describes at least one of the identity and a status of the aircraft:

> "The skyBeacon has transponder monitoring circuitry that's smart enough to keep the aircraft's transponder and ADS-B squawk codes and Ident status in sync without a separate ADS-B control head. Like the Garmin, this is a money saver."

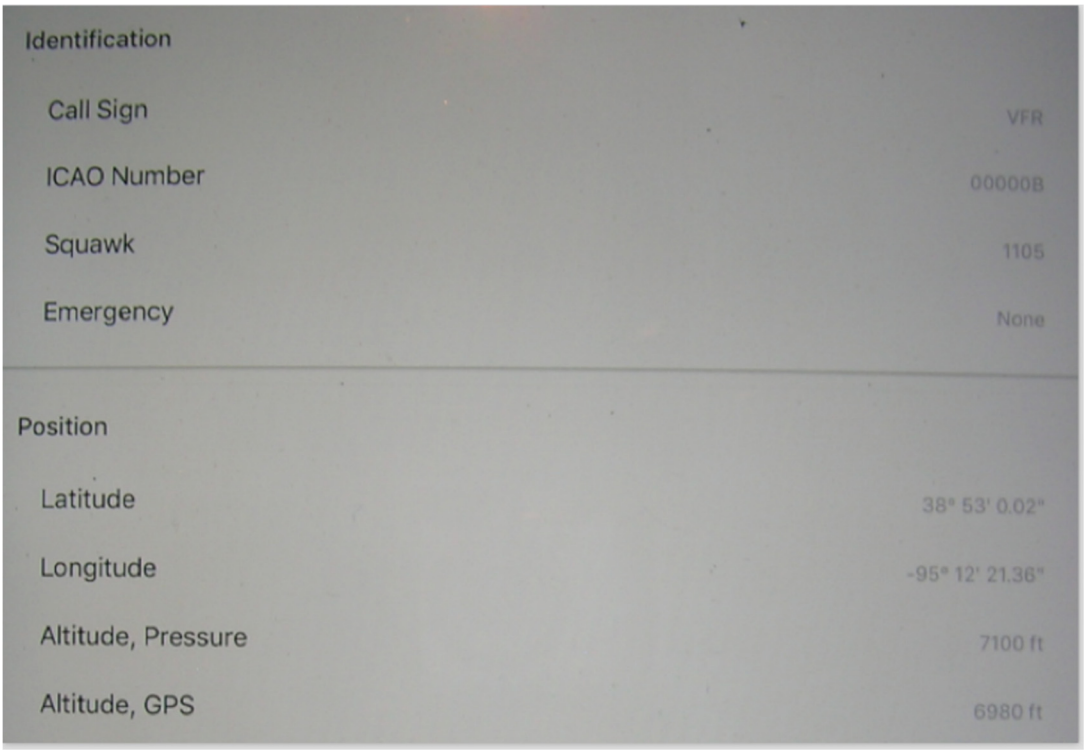
See Exhibit E (https://www.uavionix.com/news/aviation-consumer-news-budget-ads-b-uavionix-garmin-lead/)

Transponder Reply Monitor

- Wireless altitude and squawk monitor

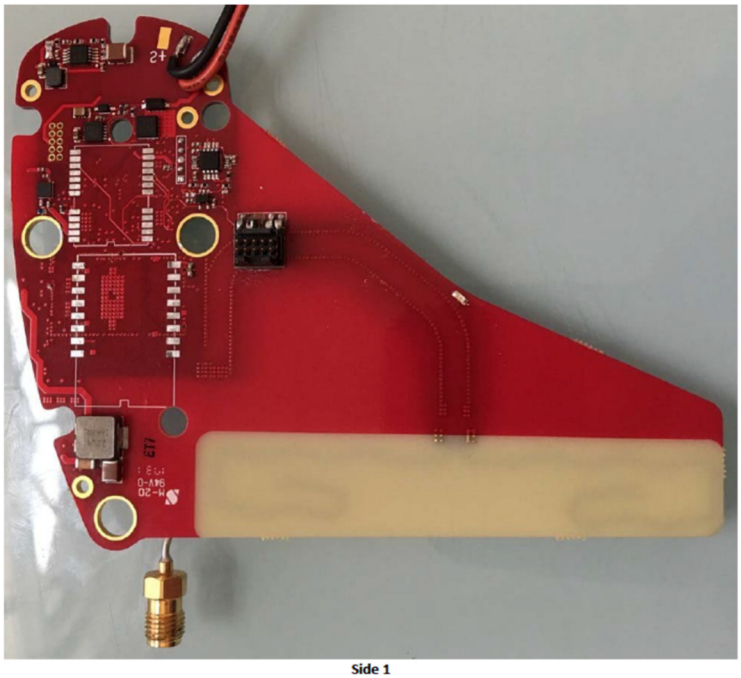
See Exhibit D (skyBeacon Manual) at p. 1.

33. Testing of the skyBeacon confirms that the skyBeacon includes a receiver operable to periodically receive transmissions from the aircraft's transponder. The following screenshot of the monitor page of the uAvionix skyBeacon installer application shows the skyBeacon receiving transmissions, including the aircraft's squawk code and pressure altitude, from a Garmin GTX 327 mode C transponder:

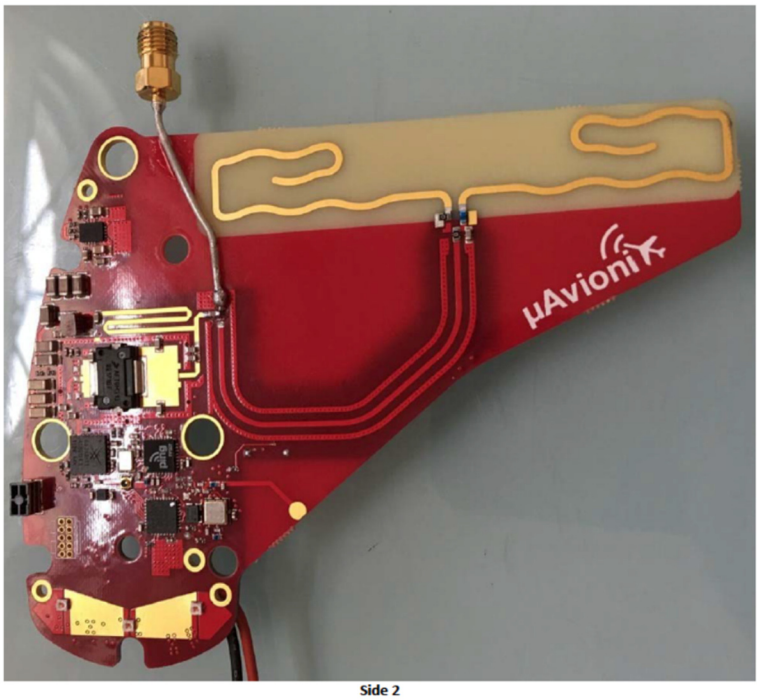


See Exhibit F (skyBeacon Installer Application Screenshot)

34. The skyBeacon includes a processing system:



Side 1



Side 2

See Exhibit G (Internal Photos submitted to FCC)

35. The skyBeacon's processing system is operable to cause the information to be extracted from the received transmission:

> An internal wireless monitor decodes replies from legacy Mode C transponders for maximum retro-fit capability.

See Exhibit D (skyBeacon Manual) at p. 1.

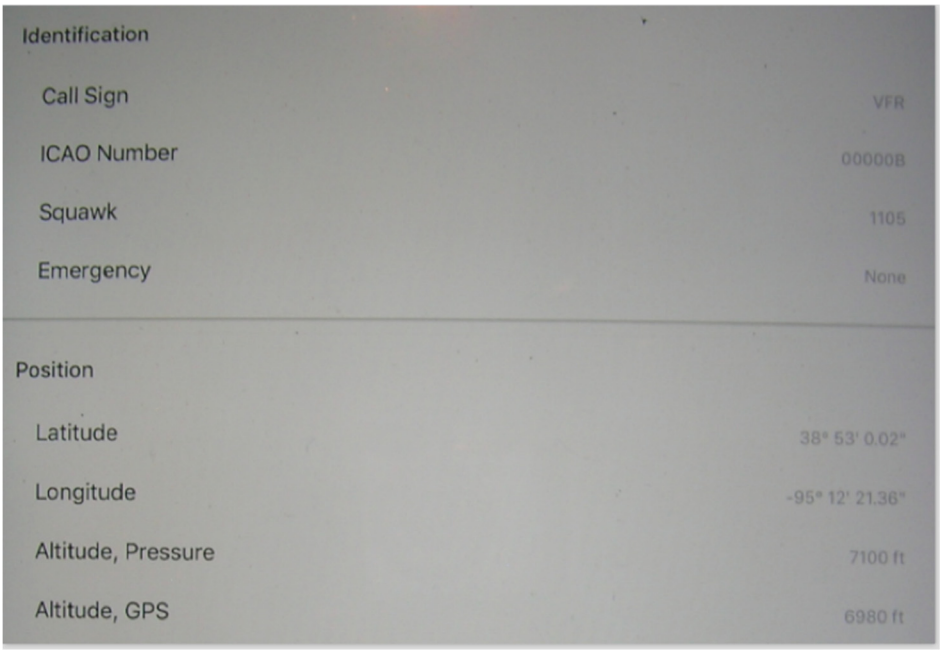
> "The skyBeacon has transponder monitoring circuitry that's smart enough to keep the aircraft's transponder and ADS-B squawk codes and Ident status in sync without a separate ADS-B control head. Like the Garmin, this is a money saver."

See Exhibit E (https://www.uavionix.com/news/aviation-consumer-news-budget-ads-b-uavionix-garmin-lead/).

> Transponder Reply Monitor
> - Wireless altitude and squawk monitor

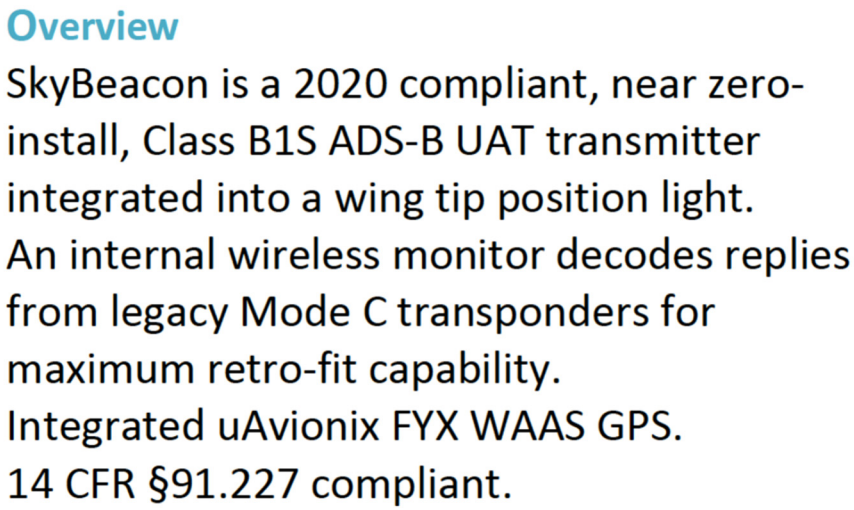
See Exhibit D (skyBeacon Manual) at p. 1.

36. Testing of the skyBeacon confirms that the skyBeacon includes a processing system operable to cause the information to be extracted from the received transmission. The following screenshot of the monitor page of the uAvionix skyBeacon installer application shows that the skyBeacon's processor extracts information, including the aircraft's squawk code and pressure altitude, from transmissions received from a Garmin GTX 327 mode C transponder:



See Exhibit F (skyBeacon Installer Application Screenshot).

37. The skyBeacon includes a transmitter operable to include the information extracted from the transmission in a broadcast over an ADS-B datalink.

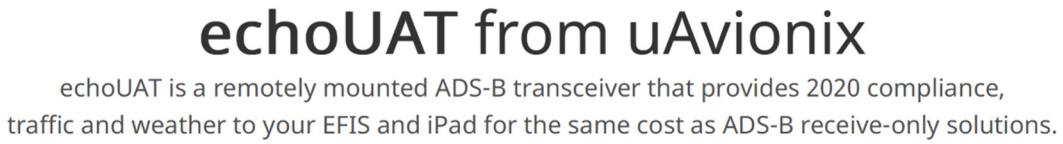


See Exhibit D (skyBeacon Manual) at p. 1. In compliance with the 14 C.F.R. § 91.227, the minimum broadcast message element set for ADS-B Out (i.e.

transmission) must include (among other things) an indication of the aircraft's pressure altitude, an indication of the Mode 3/A code (i.e. "squawk" code), and the aircraft's IDENT. 14 C.F.R. § 91.227.

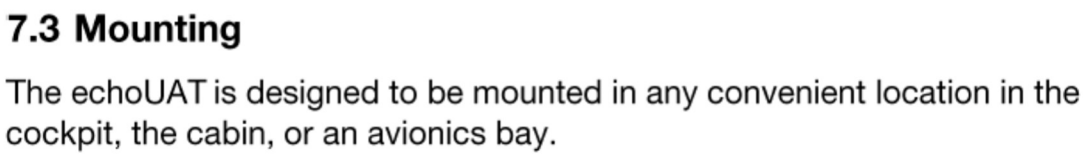
ECHOUAT

38. The uAvionix echoUAT infringes at least Claim 6 of the '301 Patent. Specifically, the echoUAT is an ADS-B transceiver:



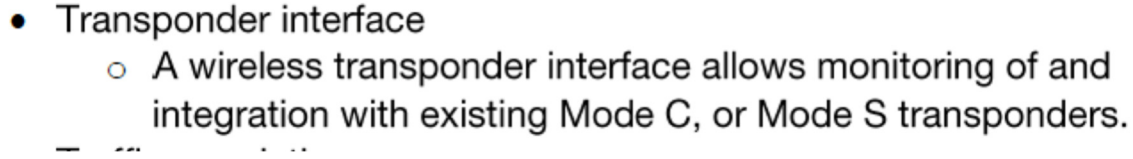
See Exhibit H (https://www.uavionix.com/products/echo-uat/)

39. The echoUAT is configured to be mounted in an aircraft:

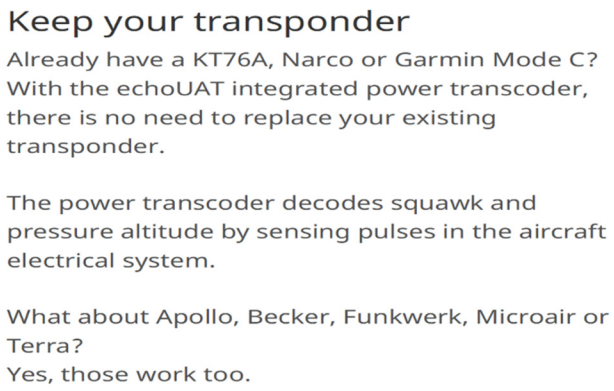


See Exhibit I (echoUAT Installation and Pilot's Guide) at p. 12

40. The echoUAT includes a receiver operable to periodically receive transmissions from a transponder of the aircraft:



Id. at p. 8.



Keep your transponder

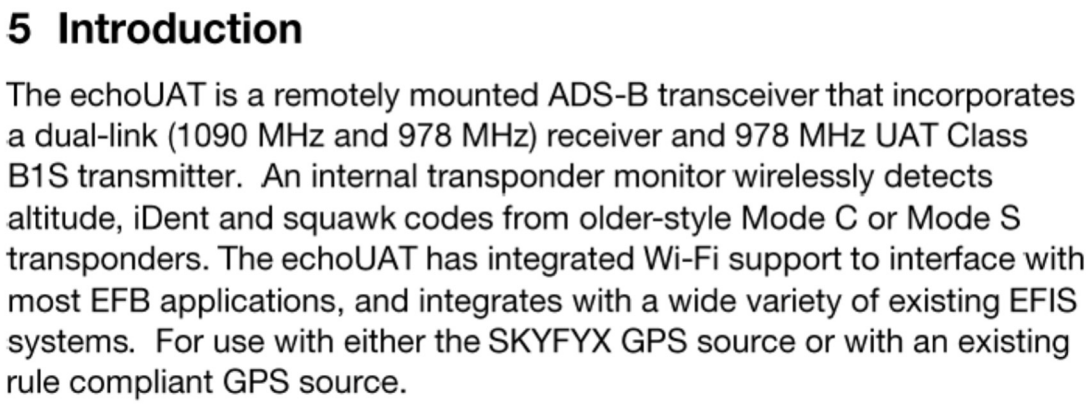
Already have a KT76A, Narco or Garmin Mode C? With the echoUAT integrated power transcoder, there is no need to replace your existing transponder.

The power transcoder decodes squawk and pressure altitude by sensing pulses in the aircraft electrical system.

What about Apollo, Becker, Funkwerk, Microair or Terra?
Yes, those work too.

See Exhibit H (https://www.uavionix.com/products/echo-uat/).

41. The echoUAT's receiver receives transmissions containing information that describes at least one of the identity and a status of the aircraft:

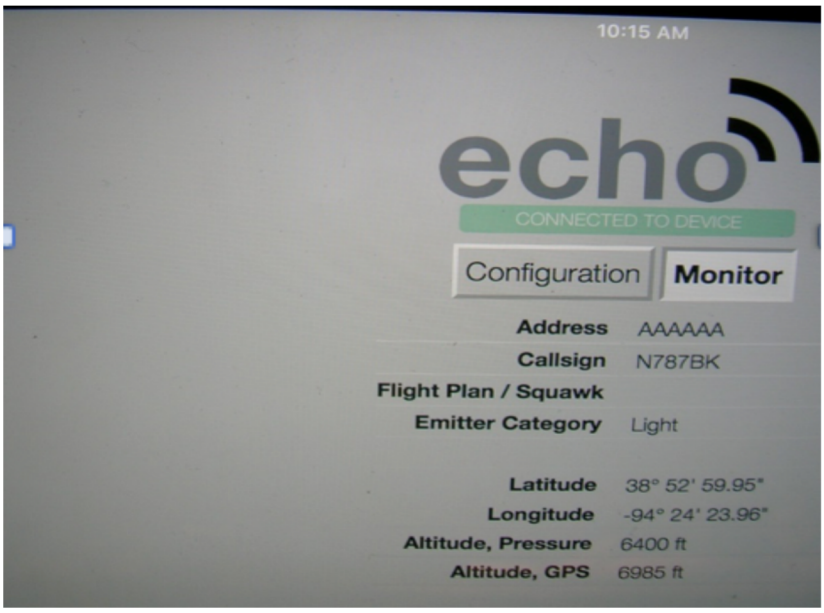


5 Introduction

The echoUAT is a remotely mounted ADS-B transceiver that incorporates a dual-link (1090 MHz and 978 MHz) receiver and 978 MHz UAT Class B1S transmitter. An internal transponder monitor wirelessly detects altitude, iDent and squawk codes from older-style Mode C or Mode S transponders. The echoUAT has integrated Wi-Fi support to interface with most EFB applications, and integrates with a wide variety of existing EFIS systems. For use with either the SKYFYX GPS source or with an existing rule compliant GPS source.

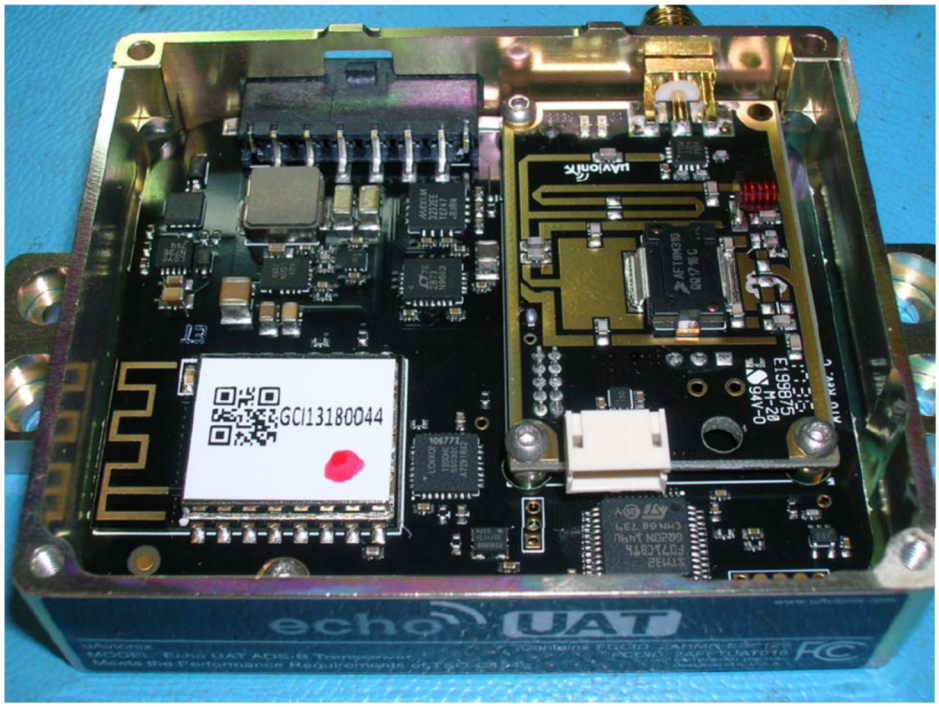
See Exhibit I (echoUAT Installation and Pilot's Guide) at p. 8.

42. Testing of the echoUAT confirms that the echoUAT includes a receiver operable to periodically receive transmissions from the aircraft's transponder. The following screenshot of the monitor page of the uAvionix echoUAT Installer application shows the echoUAT receiving transmissions, including the aircraft's pressure altitude information, from a Garmin GTX 327 mode C transponder:



See Exhibit J (echoUAT Installer Application Screenshot).

43. The echoUAT includes a processing system:



See Exhibit K (Internal Photo of echoUAT).

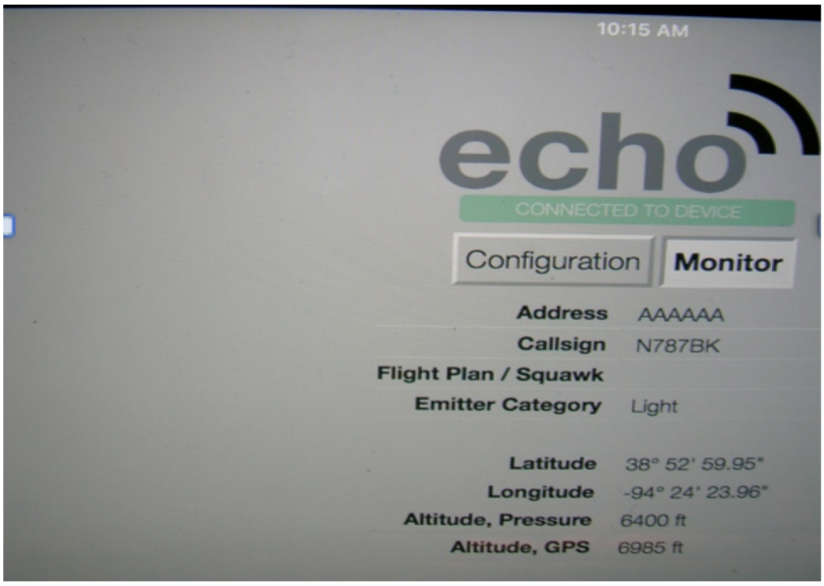
44. The echoUAT's processing system is operable to cause the information, such as the altitude, iDent and squawk codes, to be extracted from the received transmission:

5 Introduction

The echoUAT is a remotely mounted ADS-B transceiver that incorporates a dual-link (1090 MHz and 978 MHz) receiver and 978 MHz UAT Class B1S transmitter. An internal transponder monitor wirelessly detects altitude, iDent and squawk codes from older-style Mode C or Mode S transponders. The echoUAT has integrated Wi-Fi support to interface with most EFB applications, and integrates with a wide variety of existing EFIS systems. For use with either the SKYFYX GPS source or with an existing rule compliant GPS source.

See Exhibit I (echoUAT Installation and Pilot's Guide) at p. 8.

45. Testing of the echoUAT confirms that the echoUAT includes a processing system operable to cause the information to be extracted from the received transmission. The following screenshot of the monitor page of the uAvionix echoUAT Installer application shows that the echoUAT's processor extracts information, including the aircraft's pressure altitude, from transmissions received from a Garmin GTX 327 mode C transponder:



See Exhibit J (echoUAT Installer Application Screenshot)

46. The echoUAT includes a transmitter operable to include the information extracted from the transmission in a broadcast over an ADS-B datalink.

5.1 Features

The echoUAT performs the following functions:

- UAT transmission (978 MHz)
  - Transmits ADS-B Out data on the 978 MHz frequency.

See Exhibit I (echoUAT Installation and Pilot's Guide) at p. 8.

5.2 Regulatory Compliance

The echoUAT meets the Minimum Operational Performance Standards of DO-282B Class B1S, and meets the performance requirements of TSO-C154c. It complies with the ADS-B Final Rule Technical Amendment, dated 2/9/2015, affecting 14 CFR 91.225 (b)(1)(ii) which permits ADS-B Out in the National Airspace System for devices meeting the performance requirements of TSO-C154c. Accordingly, when installed in accordance with the installation instructions of this guide, the device complies with the aircraft requirements of 14 CFR 91.227.

Id. at p. 9.

47. In compliance with the 14 C.F.R. § 91.227, the minimum broadcast message element set for ADS-B Out (i.e. transmission) must include (among other things) an indication of the aircraft's pressure altitude, an indication of the Mode 3/A code (i.e. "squawk" code), and the aircraft's IDENT. 14 C.F.R. § 91.227.

COUNT I

(INFRINGEMENT OF U.S. PATENT NO. 8,102,301)

48. Garmin incorporates and references the allegations asserted in each of the preceding paragraphs, as if fully set forth herein.

49. The '301 Patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code.

50. As set forth in this Complaint, uAvionix has directly infringed and continues to directly infringe the '301 Patent, including for example, at least Claim 6 of the '301 Patent by, among other things, using, offering for sale, selling,

making, and/or importing its skyBeacon and EchoUAT, uAvionix is thereby liable for infringement of the '301 Patent pursuant to at least 35 U.S.C. § 271(a).

51. As a direct and proximate result of uAvionix's patent infringement, uAvionix has derived and received gains, profits, and advantages in an amount that has not been confirmed.

52. Garmin has been harmed by this infringement and pursuant to 35 U.S.C. § 284, Garmin is entitled to damages in an amount no less than a reasonable royalty as well as treble damages for uAvionix's willful infringement together with interests and costs as fixed by this Court.

53. Pursuant to 35 U.S.C. § 285, Garmin is entitled to reasonable attorneys' fees for the necessity of bringing this claim.

54. Garmin will suffer and is suffering irreparable harm from uAvionix's infringement of Garmin's patent due to, among other things, lost business opportunities, lost market share, and price erosion. Garmin has no adequate remedy at law. Pursuant to 35 U.S.C. § 283, Garmin is entitled to an injunction against uAvionix's continuing infringement of the '301 Patent. Unless enjoined, uAvionix will continue its infringing conduct.

PRAYER FOR RELIEF

WHEREFORE, Garmin respectfully requests judgment in its favor and against Defendant as follows:

A. For a judgment in favor of Garmin that uAvionix has directly infringed the ‘301 Patent.

B. For a judgment in favor of Garmin that uAvionix has willfully infringed the ’301 Patent.

C. For a preliminary injunction enjoining uAvionix, its officers, directors, agents, servants, affiliates, employees, divisions, branches, subsidiaries, parents, and all others acting in active concert or privity therewith from infringing the ’301 Patent.

D. For a permanent injunction enjoining uAvionix, its officers, directors, agents, servants, affiliates, employees, divisions, branches, subsidiaries, parents, and all others acting in active concert or privity therewith from infringing the ’301 Patent.

E. For a judgment in favor of Garmin for all damages suffered as a result of uAvionix’s infringement and an order that uAvionix account for and pay to Garmin the damages resulting from uAvionix’s infringement of the ’301 Patent, including lost profits, costs and expenses, together with pre-judgment and post-judgment interest thereon, and all other damages permitted pursuant to 35 U.S.C. § 284, including enhanced damages up to three times the amount of damages found or measured and costs, and in any event an amount no less than a reasonable royalty.

F. For a judgment and order awarding Garmin its reasonable attorneys' fees pursuant to 35 U.S.C. § 285.

G. For such other and further relief as this Court or a jury may deem proper and just under the circumstances.

JURY TRIAL DEMAND

Garmin respectfully demands a trial by jury on all claims and issues so triable.

DATED this 19th day of June, 2018.

/s/ Robert C. Lukes
Attorneys for Plaintiffs