

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF KANSAS**

Garmin Switzerland GmbH, and  
Garmin Corporation,

*Plaintiffs,*

v.

Navico, Inc.,  
C-MAP USA, Inc., and  
C-MAP/Commercial, Ltd.

*Defendants.*

Case No. 16-2706

**JURY TRIAL DEMANDED**

**PRELIMINARY STATEMENT**

Garmin competes with innovation. Since its inception in 1989, Garmin has applied its innovative GPS technologies to navigation challenges in the recreational marine market. Unlike over-the-road routing, marine applications pose a number of daunting challenges. For example, there are no roads on a body of water, and it has variable and unseen changes in depths that may make it impossible to traverse at certain points. Through Garmin's investments and the hard work of its engineers, Garmin invented solutions to these challenges.

Auto Guidance is one of those inventions. Auto Guidance allows a boater to navigate a body of water by utilizing the boat's unique dimensions and draught to chart an efficient route for the user. Garmin launched Auto Guidance in 2007 and it has been well received in the market ever since. Auto Guidance remains one of the most important technologies that allow Garmin to maintain and grow its market share. Garmin sought patent protection for Auto Guidance and was awarded several patents related to this technology. Among these patents was U.S. Patent No. 7,268,703 ("the '703 patent"). (*See* Plaintiff's Exhibit ("PX") 1.)

For years, Garmin's competitors rightfully refrained from infringing these important marine routing patents. After Garmin's Auto Guidance had commercial success, Navico, and its

sister-company and chart supplier C-MAP, began offering a nearly identical feature under the commercial name Easy Routing in their products sold around the world. But because of Garmin's United States patents covering this feature, Navico did not enable its auto guidance feature for U.S. customers. However, on or around August 10, 2016, both Navico and C-MAP abruptly reversed course and lifted self-imposed injunctions and, thereby, began intentionally infringing Garmin's Auto Guidance patents, including Garmin's '703 patent in the United States.

Navico's intentional violations of Garmin's intellectual property are not limited to the '703 patent. Navico also has intentionally infringed Garmin's valuable "TracBack" intellectual property. This includes Navico's infringement U.S. Patent No. 6,459,987 ("the '987 patent"), which covers Garmin's innovative "TracBack®" functionality. (PX 2.) Similarly, Garmin has for almost two decades used its federally registered trademark "TracBack®" in connection with its navigation functionalities. (PX 3.) Navico has infringed this trademark by using the designation "TrackBack" in connection with its navigation products.

For these and other reasons, Garmin now complains as follows.

**GARMIN'S SECOND AMENDED COMPLAINT FOR PATENT INFRINGEMENT,  
TRADEMARK INFRINGEMENT, FALSE DESIGNATION, AND OTHER UNFAIR ACTS**

**THE PARTIES**

Garmin

1. Garmin Switzerland GmbH ("Garmin Switzerland") is a limited liability company organized and existing under the laws of Switzerland, with its principal place of business at Mühlentalstrasse 2, Schaffhausen, CH 8200, Switzerland. Garmin International, Inc. ("Garmin International") is a corporation organized and existing under the laws of the State of Kansas, with its principal place of business at 1200 East 151st Street, Olathe, Kansas 66062.

2. Garmin Corporation is a corporation organized and existing under the laws of Taiwan, with its principal place of business at No. 68, Zhangshu 2nd Road, Xizhi Dist., New

Taipei City 221, Taiwan.

3. Hereinafter, “Garmin” collectively refers to Garmin Switzerland and Garmin Corporation, as well as other Garmin affiliated companies.

Navico

4. Defendant Navico Inc. (“Navico”) is a corporation organized and existing under the laws of the State of Delaware, with its principal place of business at 4500 South 129th East Avenue, Suite 200, Tulsa, Oklahoma 74134. Navico Inc. is owned by the Scandinavian-based Altor group of private equity funds.

C-MAP

5. Defendant C-MAP USA, Inc. is a corporation organized and existing under the laws of the State of Delaware, with its principal place of business at 100 North Riverside Plaza, Chicago, Illinois 60606.

6. Upon information and belief, Defendant C-MAP/Commercial, Ltd. is a corporation organized and existing under the laws of the State of Massachusetts, with its principal place of business at 133 Falmouth Rd., Building 2, Mashpee, Massachusetts 02649.

7. Hereinafter, “C-MAP” collectively refers to C-MAP USA, Inc. and C-MAP/Commercial, Ltd.

8. Upon information and belief, C-MAP is directly or indirectly owned by the same Scandinavian-based Altor group of private equity funds that owns Navico.

**JURISDICTION**

9. This is an action for patent infringement under the patent laws of the United States against both Navico and C-MAP, 35 U.S.C. § 101, *et seq.*, as well as for trademark infringement and false designation in violation of the Lanham Act, 15 U.S.C. § 1051, *et seq.* and

other trademark laws, and for other unfair acts by Navico.

10. This Court has subject matter jurisdiction over this action under 15 U.S.C. § 1121 (action arising under the Lanham Act); 28 U.S.C. § 1331 (federal question); 28 U.S.C. § 1338(a) (any Act of Congress relating to patents or trademarks); 28 U.S.C. § 1338(b) (unfair competition joined with a substantial and related claim under the trademark laws), and 28 U.S.C. § 1367 (supplemental jurisdiction).

11. This Court has personal jurisdiction of Navico. For example, Garmin is informed and believes that Navico conducts substantial business in this Judicial District with respect to its infringing products.

12. On information and belief, Navico has caused, induced, and/or contributed to acts of accused patent infringement and/or committed acts of accused patent infringement in this Judicial District including, *inter alia*, importing, making, using, offering for sale, and/or selling products in this Judicial District that infringe Garmin's asserted Auto Guidance and TracBack patents.

13. On information and belief, Navico has caused acts of accused trademark infringement and other accused unfair acts in this Judicial District including, *inter alia*, by using in this Judicial District a mark ("TrackBack") that is likely to cause confusion, mistake, or to deceive in connection with the sale, offering for sale, distribution, or advertising of goods that infringe Garmin's 20-year old and federally registered "TracBack®" mark.

14. In particular, Garmin is informed and believes that Navico has intentionally acted in a manner expressly aimed at causing injury to Garmin in Kansas, deriving revenue from the sale of infringing products in Kansas, and deriving revenue from interstate and international commerce as follows:

(a) Navico, either directly or indirectly, has entered into a distribution agreement(s) with third-parties such as Bass Pro (i.e., Bass Pro Group Inc. and BPS Direct, L.L.C.; hereinafter "Bass Pro") to sell the accused and infringing products and marks such as HDS-9 Gen3 throughout the United States, including Kansas (*see, e.g.*, PX 4);

(b) Navico, either directly or indirectly, has packaged and shipped hundreds if not thousands of the accused and infringing products and corresponding marks to retailers in Kansas, such as Bass Pro (*see, e.g.*, PX 4, PX 5);

(c) Navico, either directly or indirectly, has entered into a distribution agreement(s) with accused and infringing map cartridges suppliers, including Navionics, Inc. ("Navionics") and C-MAP, to sell the accused and infringing products such as SD map cartridges throughout the United States, including Kansas;

(d) Navico, either directly or indirectly, has entered into a distribution agreement(s) with accused and infringing map cartridges suppliers, including C-MAP, to offer for sale and/or sell the accused and infringing products such as SD map cartridges throughout the United States, including Kansas (*see, e.g.*, PX 6);

(d) Navico owns or operates a website, i.e., <http://store.navico.com/>, which sells and offers for sale the accused products to Kansas consumers, including SD map cartridges sold under the Navionics and C-MAP brands (PX 7);

(e) Navico owns a website, e.g., <http://www.lowrance.com/en-US/Products/Fishfinder-Chartplotter/HDS-12-Gen3-en-us.aspx> and <http://www.simrad-yachting.com/en/Products/NSS-Touchscreen-Navigation/>, which advertises the accused products such as the HDS-9 Gen3 to Kansas consumers, including advertisements using Navico's infringing "TrackBack" mark likely to cause consumer confusion, including confusion of Kansas consumers (PX 8);

(f) Navico owns one or more websites—e.g., <http://www.lowrance.com/en-US/Software-Updates/HDS-Gen3-40/>; <ftp://software.lowrance.com/>; <http://www.simrad-yachting.com/en-US/Support/Downloads/NSS-evo-2/>; and <ftp://software.simrad-yachting.com>—through which Navico distributes accused software and computer-executable instructions accused of infringement, including distribution to Kansas consumers and users (PX 9);

(g) Navico owns a website, e.g., <http://www.lowrance.com/en-US/wheretobuy/>, through which Navico advertises to consumers, including Kansas consumers, of retail locations in the State of Kansas to purchase accused products and corresponding marks (PX 10); and

(h) Navico has sold, offered for sale, and advertised infringement products and marks to Kansas consumers, including through the above distribution agreement(s) and websites.

15. On information and belief, C-MAP has caused, induced, and/or contributed to acts of accused patent infringement and/or committed acts of accused patent infringement in this Judicial District including, *inter alia*, importing, making, using, offering for sale, and/or selling products in this Judicial District that infringe Garmin's asserted patents.

16. In particular, Garmin is informed and believes that C-MAP has intentionally acted in a manner expressly aimed at causing injury to Garmin in Kansas, deriving revenue from the sale of infringing products in Kansas, and deriving revenue from interstate and international commerce as follows:

- (a) C-MAP offers for sale and sells infringing map cartridges, such as SD map cartridges, throughout the United States, including Kansas (PX 6; PX 7);
- (b) C-MAP, either directly or indirectly, has entered into a distribution agreement(s) with accused and infringing marine navigation equipment suppliers, including Navico, to sell the accused and infringing products such as SD map cartridges and software throughout the United States, including Kansas (PX 6; PX 7);
- (c) C-MAP owns or operates a website, i.e., <http://store.c-map.com/>, which sells and offers for sale the accused products to Kansas consumers, including SD map cartridges sold under C-MAP brand (PX 11); and,
- (d) Through websites owned by Navico, as well as in physical products sold by Navico in Kansas, C-MAP offers to sell and sells the accused and infringing products such as SD map cartridges throughout the United States, including Kansas (PX 4; PX 5, PX 6; PX 7).

#### VENUE

17. Venue is proper within this Judicial District under 28 U.S.C. §§ 1391(b) and (c) because Navico transacts business within this Judicial District and offers for sale in this Judicial District products that infringe the Garmin patents and trademarks.

18. In addition, venue is proper because Garmin International's principal place of business is in this Judicial District and because Garmin suffered and will continue to suffer harm in this Judicial District. Moreover, a substantial part of the events giving rise to the claim

occurred in this district. Further, substantial evidence related to this action is located in this Judicial District, including one or more inventors, documents relating to conception and reduction to practice of the inventions, and source code for Garmin's marine navigation products.

19. As demonstrated in ¶¶ 12-16 and accompanying exhibits, joinder of Navico and C-MAP is proper pursuant to 35 U.S.C. § 299 at least because the acts of infringement arise out of the same transaction, occurrence, or series of transactions or occurrences relating to the making, using, importing into the United States, offering for sale, or selling the same accused product. For example, as explained below, infringing acts include infringement by Navico making, using, selling, and offering for sale Navico-brand marine chartplotters with C-MAP cartographic data and software that enables "Easy Routing" functions or Navionics cartographic data and software that enables "Autorouting." Navico offers the accused products for sale, including C-MAP SD cards, through Navico's website, and directs users to combine Navico chartplotters with C-MAP SD cards to directly infringe Garmin's patent. Further, Navico and C-MAP are properly joined because questions of fact common to all defendants will arise in this action, including, at least the operation of Navico marine chartplotters using C-MAP cartographic data and software, as well as intentional and willful infringement of Garmin's Auto Guidance Patent. Further, on information and belief, Navico and C-MAP are both owned and controlled by the same Scandinavian parent company and, thus, liability and damages issues of fact are common to both Navico and C-MAP.

#### **FACTUAL BACKGROUND** **Garmin's History**

20. Garmin International was founded in Lenexa, Kansas, by Gary Burrell and Dr. Min Kao. Garmin's cutting edge research and creative product design are rooted in Kansas, with

a reach that has grown across the globe.

21. Garmin's founders joined technological experience with business acumen to create a company that has been a pioneer in Global Positioning System ("GPS") technology since the beginning. Garmin's founders applied research experience obtained from NASA and the United States Military to develop the first GPS navigator to be certified by the Federal Aviation Administration, which is now a featured exhibit of the Smithsonian's Time and Navigation Exhibition.

22. Mr. Burrell is widely considered one of the leading trailblazers of integrated avionics. As part of a distinguished career, he designed and developed the first successful integrated NAV/COMM for the general aviation market. Together, Dr. Kao and Mr. Burrell grew Garmin from a local Kansas start-up to a research, design, and consumer product giant.

23. Today, Garmin is the recognized leader in feature-rich and intuitive navigational products for the automotive, aviation, outdoor, fitness, and marine markets. Garmin manages its design, manufacturing, marketing, and warehouse processes internally to ensure quality and service to its customers. Garmin's local presence remains strong even as its international reach continues to spread.

24. Garmin, through its various affiliates, is one of the largest employers in the State of Kansas. Garmin occupies a 1.2 million square foot facility on nearly 96 acres in Olathe, Kansas where Garmin conducts the majority of its product design and development work. As a result of Garmin's market successes, Garmin just recently announced its plans for a \$200,000,000 expansion of its Olathe-based facilities.

#### Garmin's Innovative Marine Technologies

25. Innovation is essential to Garmin's brand and product value. Garmin has invested



billions into research of cutting-edge, consumer-demanded navigational technologies. Last year alone, Garmin invested \$427 million dollars in research and development, launched 125 new products, and shipped 16.2 million units worldwide.

26. Many trade and industry observers have recognized Garmin for its innovation and superior craftsmanship. For example, Garmin has won 6 awards in industry supplier-of-the-year categories since 2010. Garmin has also won 7 awards from the National Marine Electronics Association for its cutting-edge marine inventions.

27. Garmin's marine products—which are designed, developed, and distributed by Garmin in Kansas—include recreational devices known as “chartplotters.” A chartplotter is a marine navigational device that combines GPS functionality with electronically displayed navigational charts. Garmin's feature-rich chartplotters allow the user to perform critical functions quickly and easily.

#### Intellectual Property Infringed By Navico and/or C-MAP

28. Garmin Switzerland is the owner by assignment of all right, title, and interest in and to the '703 patent, which is entitled “Methods, Systems, and Devices for Cartographic Alerts,” and which duly and legally issued in the names of Darrin W. Kabel and Steven J. Myers on September 11, 2007. A copy of the '703 patent is attached to the Complaint as PX 1. The '703 patent covers Garmin's innovative Auto Guidance, discussed in ¶¶ 31-33 below.

29. Garmin Corporation is the owner by assignment of all right, title, and interest in and to the '987 patent, which is entitled “Method and Apparatus for Backtracking a Path,” and which duly and legally issued in the names of Jay Dee Krull and Darin J. Beesley on October 1, 2002. A copy of the '987 patent is attached to the Complaint as PX 2. The '987 patent covers Garmin's intelligent backtracking technologies, discussed in ¶¶ 37-40 below.

30. Garmin Corporation is also the owner by assignment of all right, title, interest, and goodwill associated with Garmin’s federally registered “TracBack” mark, Registration Number 2,219,229. A copy of the “TracBack” registration is attached to the Complaint as PX 3. The “TracBack” mark carries significant goodwill amongst marine navigation consumers, discussed in ¶¶ 41-44 below.

#### Garmin’s Auto Guidance Technology

31. Auto Guidance searches cartographic charts to automatically create a route that avoids hazards identified in advance of marine route creation—such as shallow water, low bridges, and other obstructions—based on user-specified vessel information. For example, the marine navigation device first receives a pre-selected condition from the user, such as the boat’s acceptable water depth. The marine navigation device then receives a first location and a waypoint, such as the start and end points of a desired route. Rather than chart a straight-line between the two points, Auto Guidance improves upon prior routing techniques by performing a marine route calculation algorithm which takes into account the user-specified vessel information and cartographic data to create a route through non-user selected waypoints. This route is then visually overlaid on a map on the chartplotter. Auto Guidance’s use of computer-implemented, objective, and rules-based algorithms, as well as world-class cartographic data, increases the enjoyment of boating by quickly, conveniently, and accurately creating routes through non-user selected waypoints that a boater may follow to avoid dangerous structures and other obstructions not visible with the human eye or discernible without detailed cartography data, as illustrated and described below:



(See, e.g., PX 12.)

32. Garmin created Auto Guidance to correct a limitation of GPS technology in the marine navigational context. At the time Auto Guidance was invented, land-based GPS technologies were adept at plotting a route directly between two waypoints on a paved road. But in the marine context where roads do not exist, GPS technology alone is often insufficient to calculate an optimal path between two points, in part, because there are innumerable possible routes in the open water between two waypoints. In addition, certain topographical features, such as shallow water or narrow thoroughfares, may be impassable to some boats but not others. Existing GPS technologies were incapable of addressing these issues.

33. Recognizing the inherent limitations of GPS technologies in the marine navigation context, Garmin employees, Mr. Darrin Kabel and Mr. Steven Myers, set out to create a solution. They did so in 2003, by inventing a sophisticated and proprietary algorithm that relies on detailed cartography data and pre-selected conditions (e.g., a user-selected acceptable depth) to automatically and objectively determine one or more intermediary, non-user-selected waypoints that form a route to a final waypoint. In addition, Messrs. Kabel and Myers also invented methods of providing alert signals to indicate hazardous conditions along the route. Garmin obtained numerous patents directed to various aspects and features of its Auto Guidance

technologies, including the ‘703 patent. (PX 1.)

34. Garmin sells, and has sold, products utilizing Auto Guidance since 2007. Since that time, Auto Guidance has been a key differentiator between Garmin and competitor products. Garmin also has been awarded valuable contracts with original equipment manufacturers (“OEMs”), and enjoyed substantial after-market sales of Garmin-branded chartplotters that incorporate Auto Guidance.

35. Auto Guidance is currently sold on an SD card known as the Garmin BlueChart® g2 Vision® card at various retail locations across the United States as well as online. In most cases, sales of the BlueChart® g2 Vision® cards also coincide with and help drive demand for sales of Garmin chartplotters.

36. Customer demand for Auto Guidance was one of the biggest drivers of Garmin’s success in the recreational marine navigation market. And, until recently, Garmin has been able to grow market share in coastal marine markets because it was the only company offering Auto Guidance in the United States.

#### Garmin’s “TracBack” Patent

37. In electronic navigation using GPS, a user’s path is comprised of a series of GPS point coordinates corresponding to the user’s movement. In the mid-90’s, two leading technologists at Garmin—Mr. Jay Dee Krull and Mr. Darin Beesley—recognized that the ability to chart a backtrack path using a point recording algorithm would provide a number of benefits to the user. One such advantage was recording a manageable set of points while maintaining the turn points of the original route, which allows a user to retrace his steps on a proven route, as opposed to creating a new and potentially less reliable backward path. This was especially critical in suboptimal conditions, such as fog or severe weather, where it may be difficult to

navigate back to a starting point. This feature was also useful because GPS systems at the time could not predict impassable objects and users could waste time trying untraveled routes that had such objects. Another benefit was that users can save track information to repeat trips that were particularly enjoyable.

38. In the 1990's, saving one or more paths consumed far too much device memory and compromised route representation and route display speeds, at least in part because forward paths consisted of thousands if not tens of thousands of individual points along the forward path. To solve this problem, Mr. Krull and Mr. Beesley developed and implemented a novel and useful system and method that utilized a compression algorithm in global positioning systems to intelligently optimize the number of forward-path points to be used during the creation of a historical backward path—in other words, a backward path that enhanced device memory, display resources, and navigation guidance; all while maintaining fidelity to the originally-traveled forward path.

39. Garmin immediately recognized the value of Mr. Krull and Mr. Beesley's inventions, both as a technical feature and as a potential market differentiator. Garmin thus immediately sought to productize and protect the TracBack technology.

40. Filed in November 1996, Garmin's TracBack inventions are protected by the '987 patent. (PX 2.)

#### Garmin's "TracBack®" Trademark

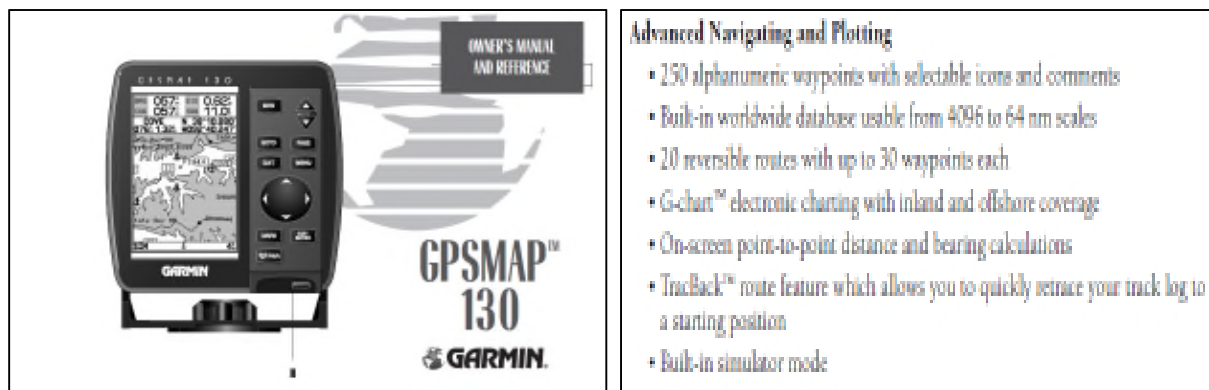
41. In addition to patent protection, Garmin also sought and secured Federal trademark rights in Garmin's backtrack technology brand—i.e., Garmin's "TracBack®" mark. (PX3.) Garmin's TracBack® trademark was filed Feb. 29, 1996, and registered on January 19, 1999 as Registration Number 2,219,229. (PX 3.) The listed "goods and services"

characterization for Garmin's TracBack® mark is: "feature, sold as a component of, a global positioning system receiver and indicator for use in navigation." (PX 3.)

42. Garmin's federally registered "TracBack®" mark having Registration No. 2,219,229 is incontestable.

43. Garmin's "TracBack®" is assigned to, and owned by, Garmin Corporation.

44. In addition to seeking registration, Garmin also affixed its TracBack® mark on a number of Garmin's consumer products in 1996 (see below) and continues to use the mark to this day:



(PX 13 (excerpted).)

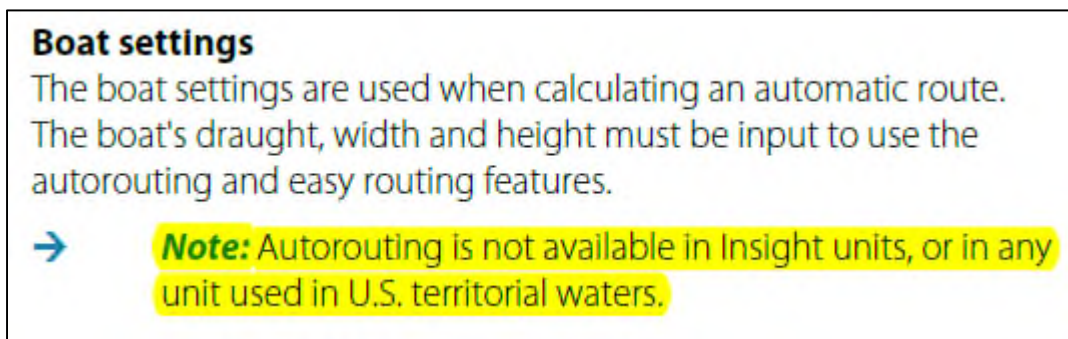
#### Navico's Infringing Chartplotters and Associated Autorouting/Easy Routing Features

45. Upon information and belief, Navico competes against Garmin in the marine navigation industry, marketing a series of chartplotters under the Lowrance, Simrad, and B&G brands. Chartplotters sold by Navico can include software enabling "Autorouting" and "Easy Routing" functions. (PX 9.)

46. Upon information and belief, Navico's sister company—C-MAP—offers map cartridges that are operational with Navico-brand chartplotters, including products under the Lowrance, Simrad, and B&G brands. The C-MAP-brand map cartridges include software enabling the feature marketed as "Easy Routing."

47. Navico had not offered, until only a few months ago, Autorouting or Easy Routing in U.S. territorial waters.

48. Upon information and belief, Navico knew that offering Auto Routing would violate Garmin's intellectual property rights. Navico even went so far as to "geo-fence" its Auto Routing feature until August 2016. In other words, Navico affected a self-imposed injunction by technologically disabling the possibility of a U.S. customer from using Autorouting and Easy Routing:



(PX 14 at 50.)

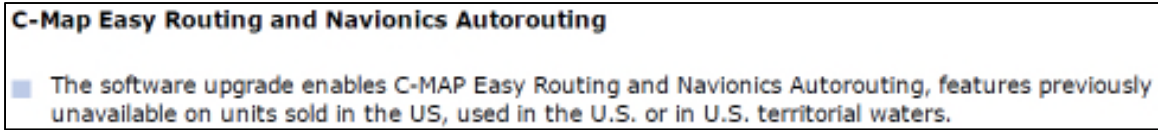
49. Because of Navico's geo-fencing, Autorouting and Easy Routing would not work or would otherwise be disabled when Lowrance- and Simrad-branded chartplotters were brought into U.S. territorial waters.

50. Navico's self-imposed injunction ended on August 10, 2016 when it abruptly chose to enable Autorouting and Easy Routing on its chartplotters sold in United States for Lowrance and Simrad products.

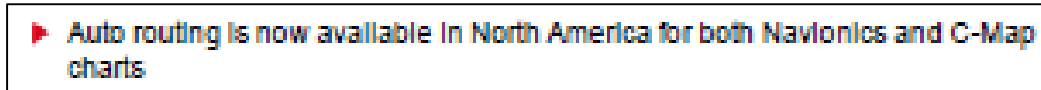
51. Navico enabled Autorouting and Easy Routing on certain Lowrance and Simrad chartplotters on August 10, 2016. Navico enabled this feature by creating and advertising a free software upgrade for "HDS Gen2 Touch" and "HDS Gen3" equipped Lowrance chartplotters. (PX 9.) These software upgrades specifically highlighted the software's ability to enable



Autorouting and Easy Routing in U.S. waters, and advertised that “the software upgrade enables ... Navionics Autorouting, features previously unavailable on units sold in the US [sic], used in the U.S. or in U.S. territorial waters”:



(PX 9.)



(PX 9.)

52. Upon information and belief, Navico was aware of Garmin’s Auto Guidance patent portfolio, including the ‘703 patent, at least as early as April 27, 2015, when certain claims in one of Navico’s own patent applications were rejected by the United States Patent and Trademark Office over the ‘703 patent. (PX 15.) In response, Navico described the ‘703 Patent as disclosing “routes that are calculated in real time, based on dynamic analysis of cartographic data and using marine route calculation algorithms....” (PX 16.)

53. Within days of Navico lifting its self-imposed injunction on Autorouting and Easy Routing in the U.S. on August 10, 2016, Garmin notified Navico of its infringement of the ‘703 patent on August 18, 2016. (PX 17.) Navico did not respond.

54. Upon information and belief, Navico agents, resellers, distributors, employees, and customers/users of Lowrance- and Simrad-branded chartplotters have downloaded a free software upgrade that enables Autorouting and/or Easy Routing and, to that end, are currently using Navico chartplotters with the Autorouting and/or Easy Routing feature.

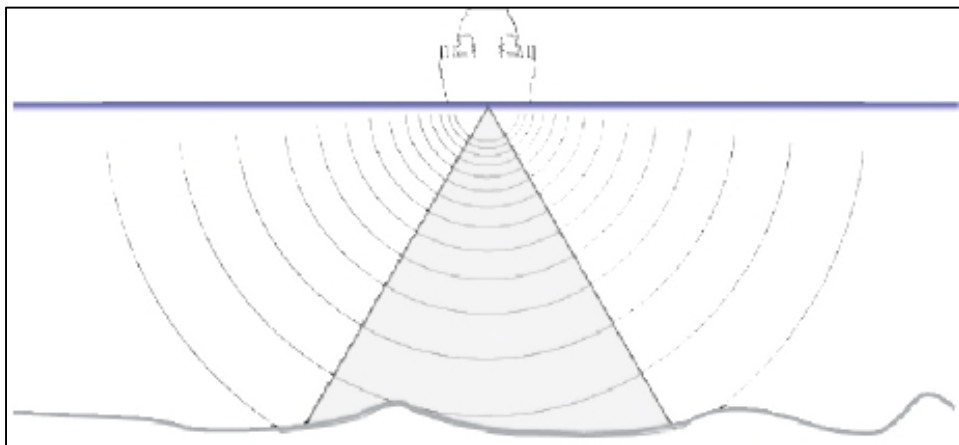
Navico’s Infringement of the ‘987 Patent: Navico’s “TrackBack” Feature



55. Navico's chartplotters also contain features that mimics Garmin's '987 patent. The first infringing feature of Navico's chartplotters is Navico's "TrackBack" feature itself.

56. Navico's website for its Lowrance-branded chartplotters, e.g., an HDS-12 Gen3, describes Navico's "TrackBack" feature as follows: "TrackBack® to review and save key hotspots Scrollback thru sonar or StructureScan® HD imaging history to review structure or fish targets and pinpoint the location with a waypoint." (PX 8.)

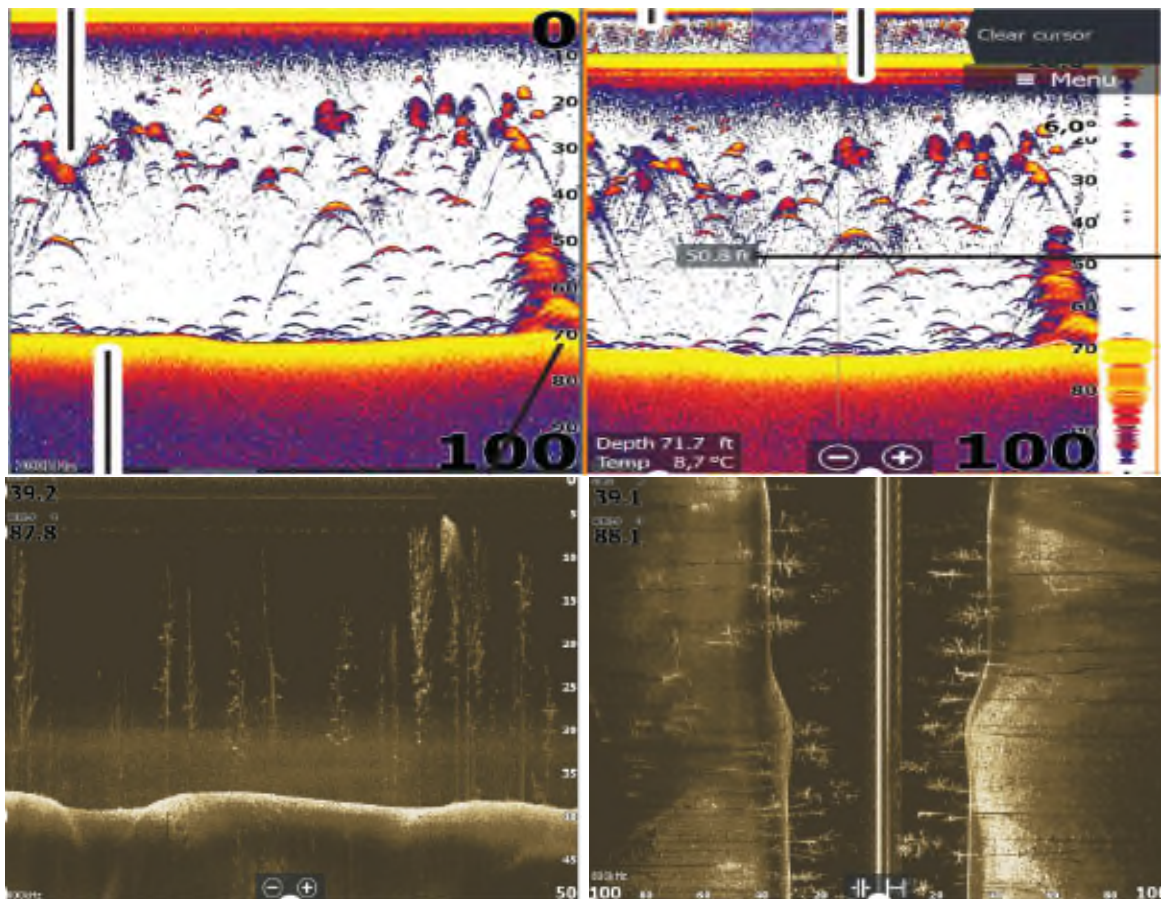
57. As used with Navico's "TrackBack" feature, sonar and/or StructureScan imaging data is collected, through a transducer associated with the vessel, as generally illustrated in Navico's Lowrance-branded manuals as shown below:



(PX 14 at 78.)

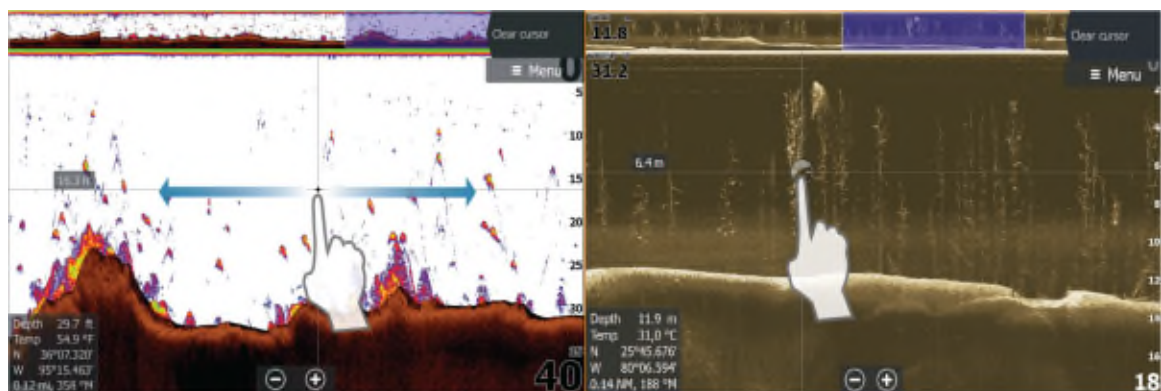
58. On information and belief, the sonar and/or StructureScan imaging data is collected by the chartplotter, along with position information, while the vessel is traveling a forward path.

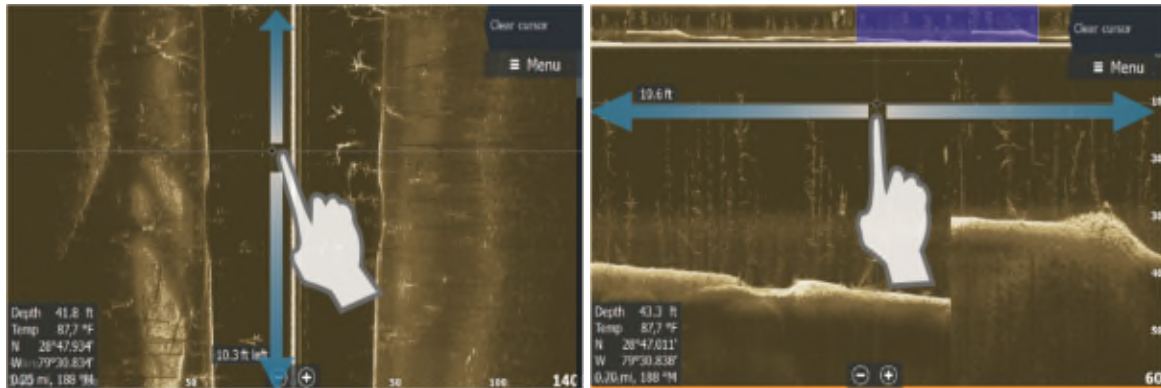
59. Once the below-vessel data is collected, it is accessible on Navico's chartplotters via the user interface, as illustrated in Lowrance-branded manuals and reproduced below:



(PX 14 at 65 (sonar), 78 (StructureScan).)

60. The above interfaces include a “history bar,” which “shows the image you are currently viewing in relation to the total” sonar and/or StructureScan image history stored while travelling along the forward path. (PX 14 at 66, 79.) The “history bar” interfaces to stored path data are illustrated in Navico’s Lowrance-branded manuals as shown below:





(PX 14 at 67 (sonar), 79 (StructureScan).)

61. The information accessible through the “history bar” interfaces above include information collected and stored by the Navico chartplotters while travelling along a forward direction of travel. On information and belief, the collected and stored information includes a subset of location points identified while moving along the forward direction of travel—for example, as shown above, the position 25°45.676N and 80°06.594W. (PX 14 at 79.)

62. In addition, the travelled path history information (both sonar and StructureScan imaging) can be logged by the device in response to user instructions. (PX 14 at 70-72, 82.)

63. On information and belief, logged sonar and/or StructureScan imaging data also include a subset of location points identified while moving along the forward direction of travel.

64. On information and belief, Navico’s Simrad-branded chartplotters also operate as described above.

#### Navico’s Infringement of the ‘987 Patent: Navico’s “Trail-To-Route” Feature

65. The second infringing feature of Navico’s chartplotters is Navico’s “Trails” and “Tracks” feature. Lowrance chartplotters call this feature “Trails,” and Simrad chartplotters refer to this feature as “Tracks.” Navico’s literature for both Lowrance and Simrad brands describe the features the same— brands explain the feature as a “graphical representation of the historical path of the vessel, allowing you to retrace where you have travelled.” (PX 14 at 58; PX 18 at

40.)

66. Navico's manuals describe these features as follows: "From the factory, the system is set to automatically track and draw the vessel's movement on the chart panel. The system continues to record the Trails until the length reaches the maximum points, and then automatically begins overwriting the oldest points." (PX 14 at 58; PX 18 at 40.)

67. "Trails" and "Tracks" are "made up of a series of points connected by line segments whose length depends on the frequency of the recording." (PX 14 at 59; PX 18 at 40.) These points are collected by the Navico chartplotter during forward travel, and the user "can select to position trail points based on time settings, distance, or by letting the system position a waypoint automatically when a course change is registered." (PX 14 at 59; PX 18 at 40.)

68. Thus, on information and belief, Navico's "Trails" and "Tracks" include only a subset of location points identified while moving along the forward direction of travel, e.g., location points automatically identified based on time, distance, or proprietary Navico rules.

69. In addition, Navico chartplotters include the option to save "Tracks" and "Trails" as "Routes." A "Trail" or "Track" includes a number of "points" collected during forward travel. When saved as a "Route," the "Route" includes a subset of the forward path points known as waypoints.

70. For example, shown below, the "Trail010" includes nearly 250 geolocation points collected during travel along the forward path:





71. When “Trail010” is saved as the “reverse” path, for example, the created route (entitled “TRACKBACK” below) was composed of only 6 route points (“Rpt060,” “Rpt061,” “Rpt062,” “Rpt063,” “Rpt064,” and “Rpt065”), which, on information and belief, correspond to a subset of location points collected while traveling along the forward path discussed above:



72. Navico has known about Garmin's '987 patent since at least as early as August 22, 2014, when Garmin notified Navico of its infringement.

Navico's Infringement of Garmin's Registered TracBack® Mark: Navico's "TrackBack" Mark

73. Navico also violates Garmin's intellectual property rights by infringing Garmin's Federally Registered TracBack® trademark with a feature it confusingly calls "TrackBack."<sup>1</sup>

74. Navico's "TrackBack" mark is confusingly similar to Garmin's TracBack® mark, differing only by the addition of one letter. Moreover, the pronunciation of both marks is the same.

75. Navico affixes and uses its "TrackBack" mark in connection with feature components of its chartplotter GPS systems as an indicator of use in connection with navigation.

76. Upon information and belief, Navico's TrackBack mark and Garmin's TracBack® mark are both used in connection with chartplotters in the marine navigational device market, targeted to the same class of consumers and the same retail channels, and are marketed and sold via the same trade and retail locations, such as marine and outdoor outfitters, where the products may be placed in close proximity to one another.

77. Upon information and belief, Navico has adopted and used the TrackBack mark in bad faith, with actual or constructive knowledge and/or reckless disregard of and indifference to Garmin's rights in its registered TracBack® mark.

78. Upon information and belief, Navico's use of the TrackBack mark in relationship to its Lowrance- and Simrad-branded chartplotters has created actual confusion among consumers regarding the parties, their products, and their respective marks.

79. Upon information and belief, Navico's use of the TrackBack mark in relationship to its Lowrance- and Simrad-branded chartplotters will continue to harm Garmin's reputation and goodwill in the market, and has caused the loss of sales and profits which Garmin would

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<sup>1</sup> Product information related to both Lowrance- and Simrad-branded chartplotters refer to a feature called "Trackback™", however this mark has not been applied for, and is not registered with, the U.S. Patent and Trademark Office.

have made but for Navico's unlawful acts.

80. Upon information and belief, Navico's infringement of Garmin's trademark rights is causing Garmin immediate and irreparable harm and will continue to do so unless enjoined by this Court.

**COUNT 1: PATENT INFRINGEMENT**  
**Navico's Infringement of the '703 Patent**

81. Garmin realleges and incorporates by reference the allegations set forth in paragraphs 1-80 above.

82. Upon information and belief, Navico has been, and currently is, directly infringing at least claim 20 of '703 patent by at least its making, using, selling, and offering for sale the claimed inventions through its Lowrance- and Simrad-branded chartplotters that enable and incorporate "Autorouting" and "Easy Routing" functions. Navico's infringement includes, but is not limited to, its making and using of the inventions covered by claim 20 of the '703 patent operating certain software load versions in conjunction with "Autorouting" and "Easy Routing" SD map cartridges, including (hereinafter, collectively referred to as "Accused Navico Products"):

- Navico's Lowrance-branded HDS-12 Gen3, HDS-9 Gen3, HDS-7 Gen3 with "Autorouting" and "Easy Routing" SD map cartridges operating software load Version 4.0 (55.1.74);
- Navico's Lowrance-branded HDS-12 Gen2 Touch, HDS-9 Gen2 Touch, HDS-7 Gen2 Touch with "Autorouting" and "Easy Routing" SD map cartridges operating software load Version 6.0 (54.2.6);
- Navico's Simrad-branded NSS16 evo2, NSS12 evo2, NSS9 evo2, NSS7 evo2 with "Autorouting" and "Easy Routing" SD map cartridges operating software load Version 4.0 (55.1.74);
- Navico's Simrad-branded NSO evo2 with "Autorouting" and "Easy Routing" SD map cartridges operating software load Version 5.0 (55.1.74); and



- Navico’s Simrad-branded GO7 XSE, GO5 XSE with “Autorouting” and “Easy Routing” SD map cartridges operating software load Version 1.5 (55.1.74).

83. As used herein, the Navico Accused Products includes a variety of implicated Navico brands, models, software, and cartography cartridges, as generally set forth below. The following is illustrative only, and not intended to be exhaustive.

<b>“Navico Accused Products”</b>			
<b>Implicated Navico Brand</b>	<b>Implicated Navico Model</b>	<b>Implicated Navico Software</b>	<b>Implicated Cartography Cartridges</b>
Lowrance	HDS-12 Gen3, HDS-9 Gen3, HDS-7 Gen3	Version 4.0 (released 8/10/16)	Any SD map cartridge capable of performing “Autorouting” or “Easy Routing,” including SD cards sold under the Navionics and/or C-MAP brands
	HDS-12 Gen2 Touch, HDS-9 Gen2 Touch, HDS-7 Gen2 Touch	Version 6.0 (released 8/10/16)	
Simrad	NSS16 evo2, NSS12 evo2, NSS9 evo2, NSS7 evo2	Version 4.0 (released 8/10/16)	Any SD map cartridge capable of performing “Autorouting” or “Easy Routing,” including SD cards sold under the Navionics and/or C-MAP brands
	NSO evo2	Version 5.0 (released 8/10/16)	
	GO7 XSE, GO5 XSE	Version 1.5 (released 8/10/16)	

Navico’s Direct Infringement of At Least Claim 20 of the ‘703 Patent

84. Navico directors, managers, employees, and/or agents have directly infringed, and will continue to directly infringe, at least claim 20 of the ‘703 patent by making and using this claimed invention in the United States, as discussed below.

85. The preamble of claim 20 of the ‘703 patent recites: “An electronic marine navigation device, comprising” various limitations. (PX 1 at 14:22-40.)

86. The Navico Accused Products are electronic marine navigational devices.

87. For example, the Navico Accused Products provide computer-aided marine navigation functions, as reflected in Navico’s product literature and related documentation:



2

## Navigating

The navigation function included in the system allows you to navigate to the cursor position, to a waypoint, or along a predefined route.

If autopilot functionality is included in your system, the autopilot can be set to automatically navigate the vessel.

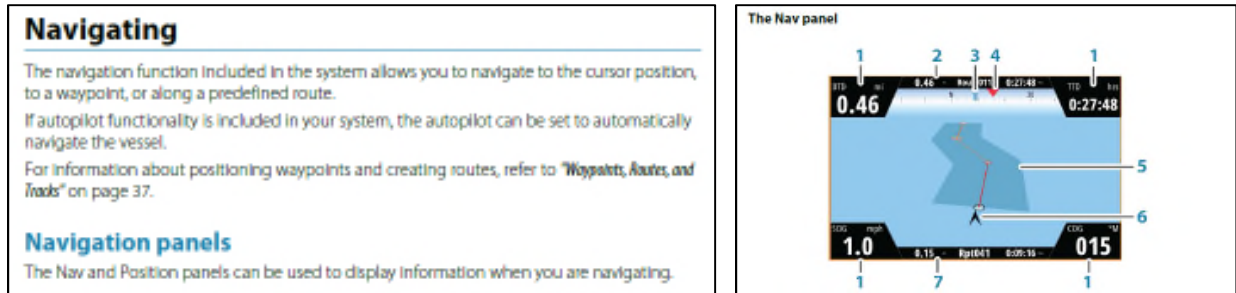
For information about positioning waypoints and creating routes, refer to *"Waypoints, Routes, and Trails"* on page 52.



3

<sup>2</sup> Available online at [http://www.lowrance.com/Root/Images/Lowrance/HDSGen3/12\\_FH\\_lg.jpg](http://www.lowrance.com/Root/Images/Lowrance/HDSGen3/12_FH_lg.jpg).

<sup>3</sup> Available online at [http://www.simrad-yachting.com/Root/Images/SimradYachting/nss2/NSS-evo2-16-inch-FRONT-HOME\\_8467\\_lg.jpg](http://www.simrad-yachting.com/Root/Images/SimradYachting/nss2/NSS-evo2-16-inch-FRONT-HOME_8467_lg.jpg).



(See PX 14 at 60-61; PX 18 at 62.)

88. The first limitation of claim 20 of the '703 patent recites: "a processor." (PX 1 at 14:22-40.)

89. The Navico Accused Products include a processor. (PX 8.)

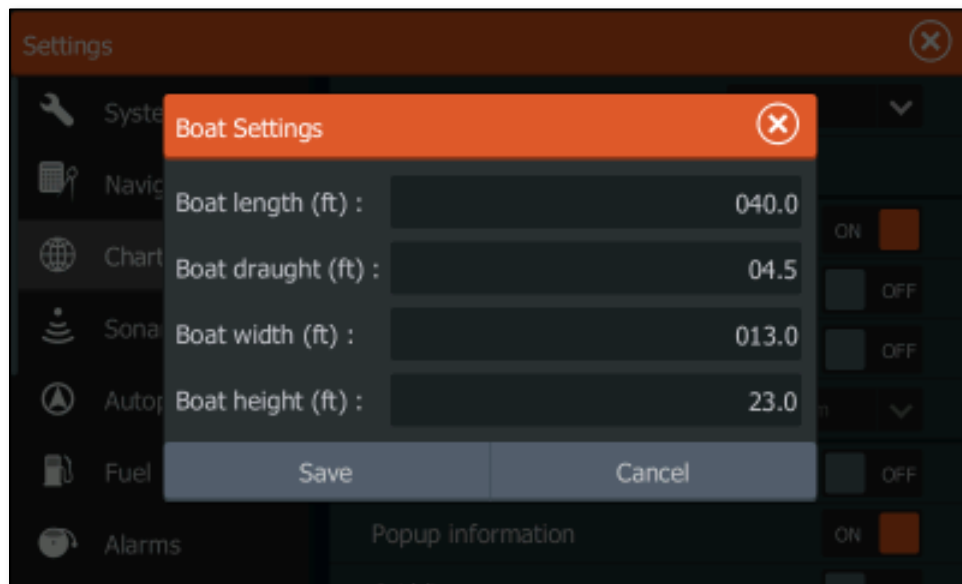
90. The second limitation of claim 20 of the '703 patent recites: "a user interface operatively coupled to the processor, wherein the user interface receives one or more preselected conditions from a user." (PX 1 at 14:22-40.)

91. The Navico Accused Products include a user interface. For example, the Navico Accused Products include a graphical user interface. The graphical user interface of the Navico Accused Products allows the user to interact with, and input information into, the Navico Accused Products, including one or more preselected conditions from the user. (PX 14 at 50, 56-57; PX 18 at 35, 38.)

92. Through the graphical user interface, the Navico Accused Products receive marine route conditions relating to a user's boat. These conditions are referred to as "boat settings," and include conditions relating to the size of the boat that will traverse the marine route. (PX 14 at 50, 56-57; PX 18 at 35, 38.)

93. In the Navico Accused Products, marine route conditions include conditions concerning the size of boat, including the "boat's draught, width, and height." (PX 14 at 50, 56-57; PX 18 at 35, 38.)

94. In the Navico Accused Products, the boat's height setting concerns the minimum height clearance necessary to navigate the marine vessel on a calculated route, e.g., on a route under a bridge. Likewise, in the Navico Accused Products, the boat's width setting concerns the minimum width clearance necessary to navigate the marine vessel on a calculated route, e.g., on a route through a narrow strait. Further, in the Navico Accused Products, the boat's draught setting concerns the minimum water depth minimum necessary to navigate the marine vessel on a calculated route, e.g., on a route through shallow waters.



95. In the Navico Accused Products, the “boat settings” relating to the boat's draught, width, and height are required “inputs” from the user in order to use the automated route creation functions known as “Autorouting” and “Easy Routing,” as reflected in Navico's product literature and related documentation as well as public demonstrations and product testing:

**Boat settings**

The boat settings are used when calculating an automatic route.  
 The boat's draught, width and height must be input to use the  
 autorouting and easy routing features.

### **Autorouting and Easy Routing**

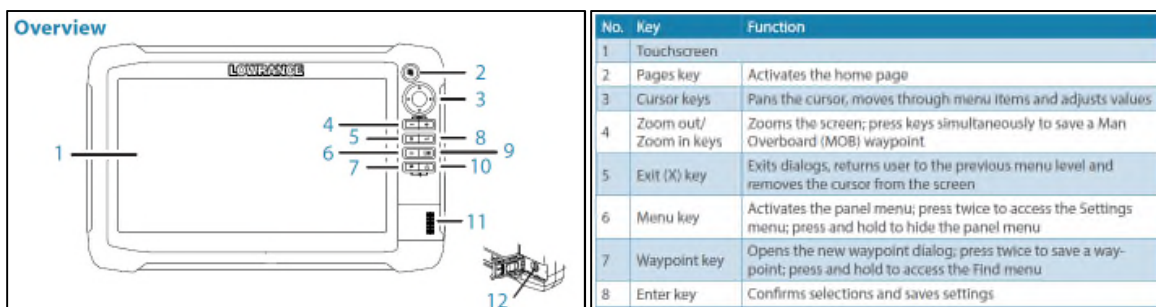
The Autorouting and Easy Routing suggest new route point positions based on information in the map and on your boat's size. Before you can start using this feature the boat draught, width and height must be entered into the system. The boat settings dialog is automatically displayed if the information is missing when you start the feature.

(PX 14 at 50, 56-57; *see also* PX 18 at 38.)

96. The third limitation of claim 20 of the '703 patent recites: "a location input operatively coupled to the processor, wherein the location input receives a first location and a potential waypoint separate from the first location." (PX 1 at 14:22-40.)

97. The Navico Accused Products include a location input.

98. In particular, the Navico Accused Products have an input location that includes a touch screen display and/or associated input keys, as reflected in Navico's product literature and related documentation as well as public demonstrations and product testing:



(PX 19 at 1; *see also* PX 14 at 50, 56-57; *see also* PX 18 at 38.)

99. The Navico Accused Products are configured to receive, from the location input(s) identified in ¶ 98, above, a first location and a potential waypoint that is separate from the first location.

100. In particular, the Navico Accused Products include a location input that receives a first location (i.e., a route start) and a separate potential waypoint location (i.e., a route destination). And, as reflected in Navico's product literature and related documentation as well



as public demonstrations and product testing, there must be “at least two routepoints” such as the “first and last routepoints”:

1. Position at least two routepoints on a new route, or open an existing route for editing.
2. Select **Autorouting**, followed by:
  - **Entire Route** if you want the system to add new routepoints between the first and the last routepoint of the open route.
  - **Selection** if you want to manually select the routepoints that define the limits for the autorouting, then select the relevant routepoints. Selected routepoints are colored red. Only two routepoints can be selected, and the system discards any routepoints between your selected start and end points.

#### **Autorouting and Easy Routing examples**

- **Entire route** option used when first and last route points are selected.



*First and last routepoint*



*Result after automatic routing*

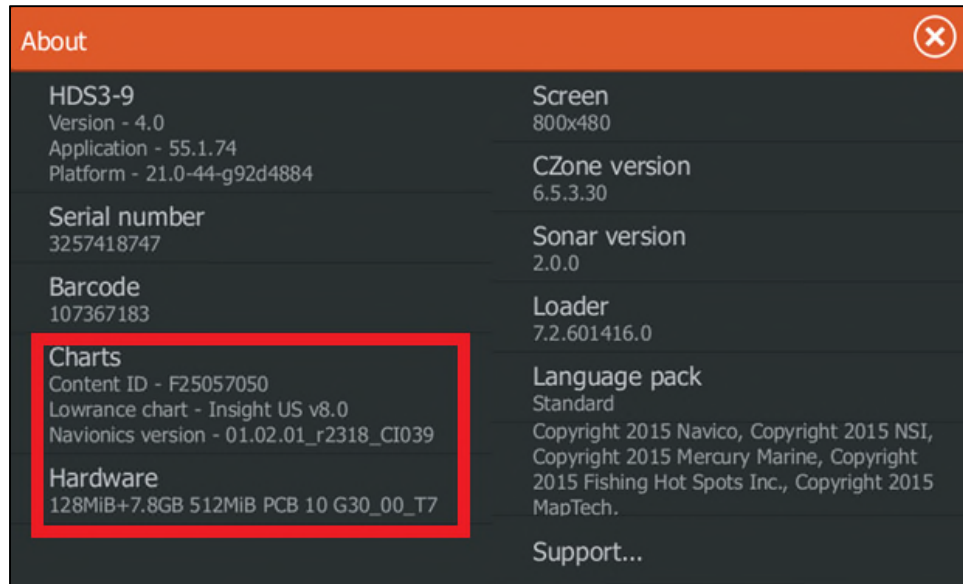
(PX 14 at 56-57; *see also* PX 18 at 38-39 (same).)

101. The fourth and final limitation of claim 20 of the ‘703 patent recites: “a memory operatively coupled to the processor and the location input, the memory having cartographic data including data related to the preselected conditions, wherein the processor operates on a marine route calculation algorithm to analyze a course between the first location and the potential waypoint in view of the preselected conditions of the cartographic data and re-route the course to avoid the preselected conditions by identifying one or more non-user selected waypoints.” (PX 1

at 14:22-40.)

102. The Navico Accused Products include a memory having stored cartographic data.

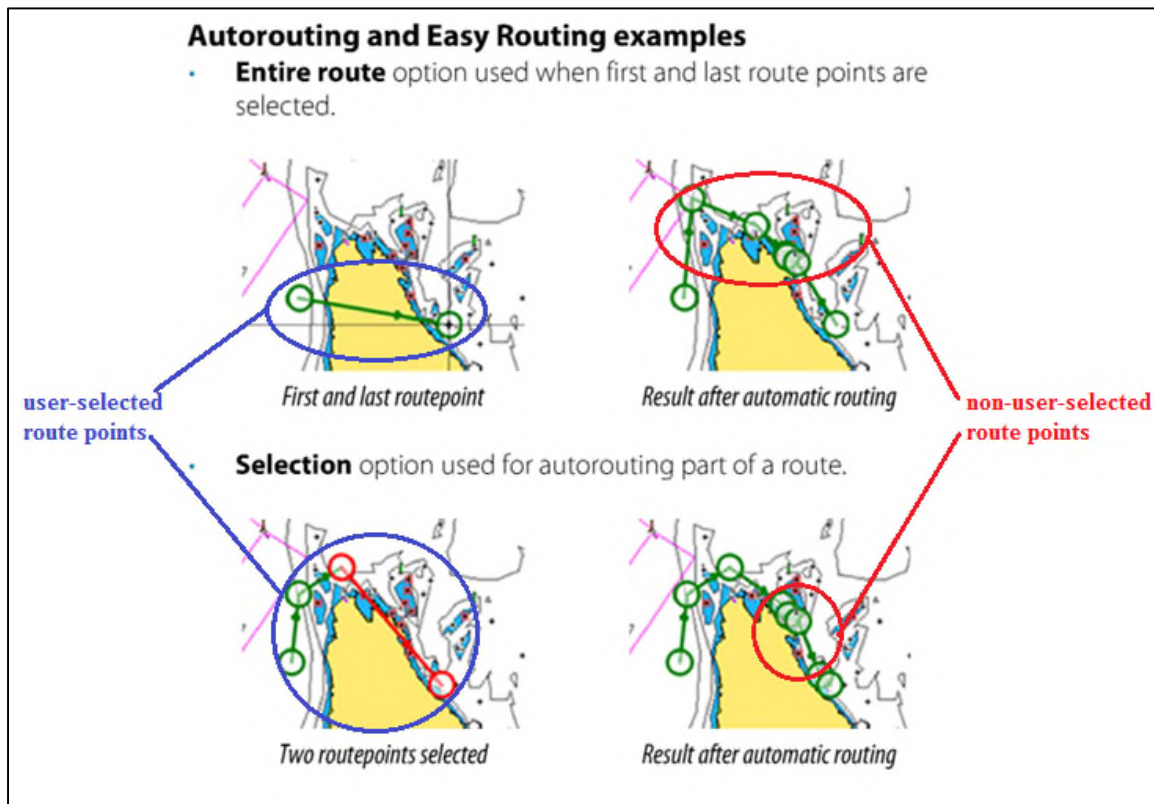
103. For example, an HDS-9 Gen3 includes 128 MiB memory, a 7.8GM memory, and a 512MiB memory, as map charts having cartographic information related to navigable waters including water depth, vessel width clearance, and vessel height clearance.



104. The Navico Accused Products are configured with the Implicated Navico Software (above-identified software version loads, *see* ¶ 83 and PX 9) are operable to apply a marine route calculation algorithm to analyze a course between the first location and the potential waypoint in view of the preselected conditions and the cartographic data and re-route the course to avoid the preselected conditions by identifying one or more non-user selected waypoints. (*See* ¶¶ 86-103, above.)

105. For example, the Navico Accused Products use the user-supplied marine route conditions selected in advance of the route calculation to analyze courses between the start point and destination point provided by the user. Based on the preselected boat setting conditions, the Navico Accused Products apply a marine routing algorithm to analyze the course and re-route

the court through non-user selected waypoints to avoid the preselected conditions (e.g., shallow waters, narrow channels, height obstructions):



(PX 14 at 56-57 (modified); *see also* PX 18 at 38 (same).)

#### Navico's Direct Infringement

106. Navico's directors, managers, employees, and/or agents have, in the United States, installed software load Version 4.0 on to HDS-12 Gen3, HDS-9 Gen3, and/or HDS-7 Gen3 products having an SD card insert therein with "Autorouting" or "Easy Routing" capabilities.

107. Navico's directors, managers, employees, and/or agents have also, in the United States, used Navico's Lowrance-branded HDS-12 Gen3, HDS-9 Gen3, and/or HDS-7 Gen3 products having software load Version 4.0 installed with an inserted SD card to demonstrate the "Autorouting" or "Easy Routing" capabilities discussed above.



108. Navico has used Navico Accused Products in the United States to perform “Autorouting” and “Easy Routing” functions.

109. On information and belief, Navico director(s), manager(s), employee(s), and/or agent(s) used and demonstrated its “Autorouting” or “Easy Routing” capabilities on a Lowrance-branded HDS-12 Gen3 running software load Version 4.0 at the Newport International Boat Show in Newport, Rhode Island, on September 15, 2016 boat show.

110. On information and belief, Navico director(s), manager(s), employee(s), and/or agent(s) intend to further make and use Navico Accused Products to demonstrate and advertise “Autorouting” or “Easy Routing” capabilities on a Lowrance- and Simrad-branded products at a number of upcoming boat shows attended by prospective customers, including, but not limited to, the November 2016 boat show in Ft. Lauderdale, Florida and the February 2017 boat show in Miami, Florida.

111. On information and belief, Navico intends to further make, use, sell, offer for sale, and/or import into the United States further additional Navico Accused Products.

Navico’s Direct Infringement of At Least Claim 19 of the ‘703 Patent

112. Navico has directly infringed and is directly infringing at least claim 19 of the ‘703 patent by making and using this claimed invention in the United States, as discussed below.

113. Claim 19 of the ‘703 patent, which depends from claim 12, reads as follows:

*[19]. A computer readable medium having a set of computer readable instructions, the set of computer readable instructions comprising instructions for:*

*receiving one or more preselected conditions from a user;*

*identifying a potential waypoint upon a first event; and*

*performing a marine route calculation algorithm to analyze a course between a first location and the potential waypoint avoiding the preselected conditions, including analyzing cartographic data between the first location and the potential*

*waypoint and re-routing the course to avoid the preselected conditions by identifying one or more non-user selected waypoints[;]*

*... the preselected conditions including a water depth.*

(PX1 at 13:53-64, 14:20-21.)

114. The Navico Accused Computer Readable Mediums include, but are not limited to, the stored software versions made and used by Navico that are listed below (and all derivatives and colorable equivalents thereof):

<b>“Navico Accused Computer Readable Mediums” (Implicated Navico Software)</b>
Version 4.0 (released 8/10/16)
Version 6.0 (released 8/10/16)
Version 4.0 (released 8/10/16)
Version 5.0 (released 8/10/16)
Version 1.5 (released 8/10/16)

115. As discussed in ¶¶ 94-95, the Implicated Navico Software includes instructions for receiving one or more preselected conditions from a user including a water depth.

116. As discussed in ¶¶ 99-100, the Implicated Navico Software includes instructions identifying a potential waypoint upon a first event, e.g., user input.

117. As discussed in ¶¶ 102-105, the Implicated Navico Software includes instructions performing a marine route calculation algorithm to analyze a course between a first location and the potential waypoint avoiding the preselected conditions, including analyzing cartographic data between the first location and the potential waypoint and re-routing the course to avoid the preselected conditions by identifying one or more non-user selected waypoints.

118. Navico has directly infringed and is directly infringing at least claim 19 of the

‘703 patent by making and using this claimed invention in the United States through making and using computer readable medium having a set of computer readable instructions on Navico owned or controlled software distribution servers, e.g., servers at “ftp://software.lowrance.com” and “ftp://software.simrad-yachting.com.” (PX 9.)

119. On information and belief, Navico has made and used copies of the software embodied on computer readable media accessible through the above sites in the United States and, thus, has directly infringed and is directly infringing at least claim 19 of the ‘703 patent.

Navico’s Additional Infringements of the ‘703 Patent

120. On information and belief, as stated above, Navico has additionally infringed other claims of the ‘703 patent by, at least, making, using, selling, offering for sale, and/or importing into the United States, products and software that infringe on other claims of the ‘703 patent.

121. Likewise, upon information and belief, Navico induces end-users, agents, employees, and/or Navico dealers of the Lowrance- and Simrad-branded chartplotters to infringe at least claims 19 and 20 of the ‘703 patent by making, using, selling, offering for sale, and/or importing into the United States Navico Accused Products and Implicated Navico Software and, further, actively encourages end-users, agents, employees, and/or Navico dealers to combine these products and software versions with Implicated Cartography Cartridges resulting in the end-user, agent, employee, and/or Navico dealer directly infringing on at least claims 19 and 20 of the ‘703 patent. Navico has induced such underlying infringement despite, since at least August 2015, having known about Garmin’s patent rights. Navico further directs end-users, agents, employees, and/or Navico dealers to combine these products and software versions with Implicated Cartography Cartridges with the intent that the marine chartplotters perform the

infringing “Autorouting” and “Easy Routing” functions.

122. For example and shown below, Navico directs users—including Navico-affiliated agents, employees, and distributors—to combine Lowrance- and Simrad-branded chartplotters with the Implicated Cartography Cartridges, such as C-MAP SD cards, with knowledge and intent that users will couple the chartplotters with cartographic data to enable and perform the infringing “Autorouting” and “Easy Routing” functionality. (*See* PX 14 at 56.)

123. Upon information and belief, Navico also contributes to users of the Lowrance- and Simrad-branded chartplotters infringement of at least claim 19 of the ‘703 patent by making, using, selling, offering for sale, and/or importing into the United States implicated non-staple Navico software having no substantial non-infringing uses but infringement. Navico contributes to such infringement despite, since at least August 2015, having known about Garmin’s patent rights.

124. Upon information and belief, Navico also infringes at least claim 19 of the ‘703 patent under 35 U.S.C. § 271(f)(1) by supplying in or from the United States all or a substantial portion of the components of the Lowrance- and Simrad-branded chartplotters and the Implicated Cartography Cartridges in such a manner as to actively induce the combination of such components outside of the United States in a manner that would infringe at least claim 19 of the ‘703 patent if such combination occurred within the United States.

125. Upon information and belief, Navico also infringes at least claim 19 of the ‘703 patent under 35 U.S.C. § 271(f)(2) by supplying in or from the United States components of the Lowrance- and Simrad-branded chartplotters and the Implicated Cartography Cartridges that are especially made or especially adapted for use in the accused products and are not a staple article or commodity of commerce suitable for substantial noninfringing use. Further, such components

are uncombined in whole or in part by Navico, knowing that such components are so made or adapted, and Navico intends that such component will be combined outside of the United States in a manner that would infringe at least claim 19 of the ‘703 patent if such combination occurred within the United States.

126. Upon information and belief, Navico’s infringement of the ‘703 patent will continue and expand unless enjoined by this Court.

127. For example, Navico’s parent company recently acquired cartography cartridge provider C-MAP and its underlying “Easy Routing” cartography functions.

128. On information and belief, Navico intends to, and will, bundle C-MAP “Easy Routing” map cartridges with sales of Navico Accused Products, or otherwise include “Easy Routing” in the base map data of the Navico-brand chartplotters.

129. As a direct and proximate consequence of Navico’s infringement of the ‘703 patent, Garmin has suffered and will continue to suffer monetary damages and irreparable harm.

130. Navico has known about Garmin’s 703 patent since at least August 2015.

131. Navico’s decision to enable previously-disabled “Autorouting” and “Easy Routing” functions in August 2016 represents a flagrant, knowing, and willful infringement of Garmin’s patented inventions of the ‘703 patent.

**COUNT 2: PATENT INFRINGEMENT**  
**C-MAP’s Infringement of the ‘703 Patent**

132. Garmin realleges and incorporates by reference the allegations set forth in paragraphs 1-131 above.

133. Upon information and belief, C-MAP has been, and currently is, directly infringing at least claim 19 of ‘703 patent by at least its making, using, selling, and offering for sale the claimed inventions through its SD map cartridges that enable “Easy Routing”

functions—for example, C-MAP’s “4D MAX+,” “MAX N+,” and/or “4D MAX+” cartography products (hereinafter, “C-MAP Accused Computer Readable Mediums”).

134. C-MAP directors, managers, employees, and/or agents have directly infringed directly infringe at least claim 19 of the ‘703 patent by making and using this claimed invention in the United States, as discussed below.

*[19]. A computer readable medium having a set of computer readable instructions, the set of computer readable instructions comprising instructions for:*

*receiving one or more preselected conditions from a user;*

*identifying a potential waypoint upon a first event; and*

*performing a marine route calculation algorithm to analyze a course between a first location and the potential waypoint avoiding the preselected conditions, including analyzing cartographic data between the first location and the potential waypoint and re-routing the course to avoid the preselected conditions by identifying one or more non-user selected waypoints[;]*

*... the preselected conditions including a water depth.*

(PX 1 at 13:53-64, 14:20-21.)

135. Upon information and belief, the C-MAP Accused Computer Readable Mediums include instructions for receiving one or more preselected conditions from a user including a water depth.

136. Upon information and belief, the C-MAP Accused Computer Readable Mediums include instructions identifying a potential waypoint upon a first event, e.g., user input.

137. Upon information and belief, the C-MAP Accused Computer Readable Medium includes instructions performing a marine route calculation algorithm to analyze a course between a first location and the potential waypoint avoiding the preselected conditions, including analyzing cartographic data between the first location and the potential waypoint and re-routing the course to avoid the preselected conditions by identifying one or more non-user selected

waypoints.

138. C-MAP has directly infringed and is directly infringing at least claim 19 of the ‘703 patent by making and using this claimed invention in the United States through making and using computer readable medium having a set of computer readable instructions on C-MAP owned or controlled software distribution servers, e.g., servers at <https://store.c-map.com/>. (See, *e.g.*, PX 11; PX 7.)

139. On information and belief, C-MAP has made and used copies of the software embodied on computer readable media accessible through the above sites in the United States and, thus, has directly infringed and is directly infringing at least claim 19 of the ‘703 patent.

#### C-MAP’s Additional Infringements of the ‘703 Patent

140. On information and belief, as stated above, C-MAP has additionally infringed other claims of the ‘703 patent by, at least, making, using, selling, offering for sale, and/or importing into the United States, products and software that infringe on other claims of the ‘703 patent.

141. Likewise, upon information and belief, C-MAP induces end-users, agents, employees, Navico representatives, and/or Navico dealers of chartplotters to infringe at least claim 20 of the ‘703 patent by making, using, selling, offering for sale, and/or importing into the United States C-MAP Accused Computer Readable Mediums and, further, actively encourages end-users, agents, employees, Navico representatives, and/or Navico dealers to combine these products and software versions with implicated chartplotters resulting in the end-users, agents, employees, Navico representatives, and/or Navico dealers directly infringing on at least claim 20 of the ‘703 patent. On information and belief C-MAP has willfully induced such underlying infringement despite, since at least 2011 or 2012, having known about Garmin’s patent rights

and the infringing nature of its accused products. In addition, or in the alternative, despite knowledge of the ‘703 Patent, C-MAP deliberately acted with an intent to avoid confirming a high probability of wrong doing associated with its sale, offering for sale, making, using, and importing into, or exporting from, the United States products it knew violated Garmin’s patent rights and/or the infringing nature and uses of its accused products. C-MAP further directs end-users, agents, employees, Navico representatives, and/or Navico dealers to combine these products and software versions with Implicated Cartography Cartridges with the intent that the marine chartplotters perform the infringing “Easy Routing” functions.

142. For example, and on information and belief, C-MAP directs end-users to combine Lowrance- and Simrad-branded chartplotters with the C-MAP Accused Computer Readable Mediums, such as C-MAP SD cards, with knowledge and intent that users will couple the chartplotters with cartographic data to enable and perform the infringing “Easy Routing” functionality.

143. Upon information and belief, C-MAP also contributes to chartplotter user’s infringement of at least claim 20 of the ‘703 patent by making, using, selling, offering for sale, and/or importing into the United States implicated non-staple computer software that have no substantial non-infringing uses but infringement. On information and belief C-MAP further willfully contributes to such infringement despite, since at least 2011 or 2012, having known about Garmin’s patent rights and the infringing nature of its accused products. In addition, or in the alternative, despite knowledge of the ‘703 Patent, C-MAP deliberately acted with an intent to avoid confirming a high probability of wrongdoing associated with its sale, offering for sale, making, using, and importing into, or exporting from, the United States products it knew constituted a material, non-staple component of Garmin’s patent rights as well as the specially-



adapted and infringing nature, combinations, and uses of its accused products.

144. Upon information and belief, C-MAP also infringes at least claim 19 of the ‘703 patent under 35 U.S.C. § 271(f)(1) by supplying in or from the United States all or a substantial portion of the components of the C-MAP Accused Computer Readable Mediums in such a manner as to actively induce the combination of such components outside of the United States in a manner that would infringe at least claim 19 of the ‘703 patent if such combination occurred within the United States.

145. Upon information and belief, C-MAP also infringes at least claim 19 of the ‘703 patent under 35 U.S.C. § 271(f)(2) by supplying in or from the United States components of the C-MAP Accused Computer Readable Mediums that are especially made or especially adapted for use in the accused products and are not a staple article or commodity of commerce suitable for substantial noninfringing use. Further, such components are uncombined in whole or in part by C-MAP, knowing that such components are so made or adapted, and C-MAP intends that such component will be combined outside of the United States in a manner that would infringe at least claim 19 of the ‘703 patent if such combination occurred within the United States.

146. Upon information and belief, C-MAP’s infringement of the ‘703 patent will continue and expand unless enjoined by this Court.

147. For example, C-MAP’s parent company also owns Navico which makes and sells chartplotters.

148. On information and belief, Navico will within the next 12 months bundle C-MAP “Easy Routing” cartography cartridges with sales of Navico Accused Products.

149. As a direct and proximate consequence of C-MAP’s infringement of the ‘703 patent, Garmin has suffered and will continue to suffer monetary damages and irreparable harms.

150. C-MAP has known about Garmin's '703 patent since at least 2011 or 2012.

151. On information and belief, C-MAP knew or should have known of Garmin's Auto Guidance technologies and that the same were covered by the '703 patent.

152. Despite knowing of Garmin's '703 patent and patented Auto Guidance technologies, C-MAP nevertheless decided to begin and continue selling, offering for sale, making, using, and/or importing into or exporting from the United States, the C-MAP accused products with knowing, intentional, and willful disregard for Garmin's known patent rights.

**COUNT 3: PATENT INFRINGEMENT**  
**Navico's Infringement of the '987 Patent**

153. Garmin realleges and incorporates by reference the allegations set forth in paragraphs 1-152 above.

154. Upon information and belief, Navico has been, and currently is, directly infringing at least claim 11 of the '987 patent by making, using, selling, offering for sale, Lowrance- and Simrad-branded chartplotters incorporating backtracking features that infringe the '987 patent. Exemplary infringing products include, but are not limited to, the Navico Accused Products discussed above in detail.

155. Claim 11 of the '987 patent, which depends from claim 9, reads as follows:

*[11.] A global positioning system receiver device comprising:*

*memory having stored therein a set of data points, each said data point of said set corresponding to a geographic position on a forward path; and*

*a processor, connected to said memory, for computing a backtrack path by selecting a subset of said data points of said set[;]*

*... wherein said set of data points includes a first data point corresponding to a beginning of the forward path and a last data point corresponding to an end of said forward path, and wherein said processor determines when to include each data point of said set in said subset of data points based upon a distance from the geographic position represented by the data point and a computed straight line between said beginning and said end of said forward path.*

(PX2 at 8:4-25.)

156. Upon information and belief, as discussed above, at least the Navico Accused Products infringe at least claim 11 of the '987 patent, as they include memories and processors configured to implement the backtrack features of the claims.

157. In particular, the Navico Accused Products include a processor and a memory.

158. The Navico Accused Products are configured to store onto memory sets of location data points corresponding to a geographic position on a forward directional path. (*See* ¶¶ 55-71, above).

159. The Navico Accused Products are further configured to compute a backtrack path by selecting a subset of data points from the forward path stored in memory. (*See* ¶¶ 55-71, above).

160. On information and belief, the Navico Accused Products are still further configured to compute, from the retrieved location data points which include the first and last location data points, Euclidean and/or non-Euclidean straight line distances between retrieved points to identify, from the set of location data points, a subset drawn from the retrieved set points that represent a backtrack path. (*See* ¶¶ 55-71, above).

161. In particular, the Navico Accused Products allow a user to store directional paths as tracks within memory on the device. The stored tracks include a subset of points corresponding to a geographical position on a forward path. On information and belief, this subset of data points in the stored track is based upon a distance from the geographic position represented by the data point and a straight line between the beginning and end of the forward path. A user can then retrieve the stored track, including the subset of data points, to create a backtrack. (*See* ¶¶ 65-71, above).

162. Navico has known about Garmin’s ‘987 patent since at least September 2014. Despite notice of its infringement, Navico continued to implement, sell, offer for sale, make, and/or use its infringing features, including at least its “TrackBack™” and Trail-To-Route features. (*See* ¶¶ 55-71, above).

163. As a direct and proximate consequence of Navico’s willful infringement of the ‘987 patent, Garmin has suffered and will continue to suffer harm.

**COUNT 4: FEDERAL TRADEMARK INFRINGEMENT**  
**Navico’s use of confusing variants of “TracBack®”**

164. Garmin realleges and incorporates by reference the allegations set forth in paragraphs 1-163 above.

165. Garmin has used the Garmin TracBack® mark continuously in commerce since at least 1996, and has promoted such products in interstate commerce in the advertising, promotion, and presentation of its goods and services.

166. Garmin’s TracBack® mark was registered as Registration Number 2,219,229 on January 19, 1999. (PX 3.)

167. Garmin’s TracBack® mark protects goods relating to features sold “as a component of global positioning system[s]” and “indicators for use in navigation.” (PX 3.)

168. Garmin’s TracBack® mark is valid and incontestable.

169. Navico is currently using “TrackBack™” as a mark in commerce in connection with its products sold “as a component of global positioning system[s]” as “indicators for use in navigation.” These include Navico’s directly-competing recreational marine products, e.g., the Navico Accused Products discussed above.

170. Navico’s use of its infringing “TrackBack™” mark is likely to cause confusion, or to cause mistake, or to deceive the consumer as to the affiliation, connection or association of

Navico with Garmin (and/or Garmin's established goodwill), or as to the origin, sponsorship, or approval by Garmin of Navico's goods, services or commercial activities, as described herein.

171. Navico's use of the infringing application icons enables Navico to benefit unfairly from Garmin's reputation and success, thereby giving Navico's infringing products sales and commercial value they would not have otherwise.

172. Prior to Navico's first use of the infringing "TrackBack™" mark, Navico was aware of Garmin's business and had either actual notice and knowledge, or constructive notice, of Garmin's "TracBack®" mark in the recreational marine industry.

173. Upon information and belief, Navico's activities described above constitute infringement of a federally registered mark in violation of § 32(1) of the Lanham Act, 15 U.S.C. § 1114(1).

174. Upon information and belief, as a direct and proximate result of Navico's infringement, Navico has derived unlawful gains, profited, benefited and been otherwise unjustly enriched in the marketplace at the expense of and injury to Garmin.

175. Garmin has no adequate remedy at law.

176. Navico's unauthorized use of the infringing application icons is likely, if not certain, to deceive or to cause confusion or mistake among consumers as to the origin, sponsorship or approval of the Navico line of products and/or to cause confusion or mistake as to any affiliation, connection or association between Garmin and Navico, in violation of 15 U.S.C. § 1114(1)(a).

177. On information and belief, Navico's infringement of Garmin's "TracBack®" mark as described herein has been and continues to be intentional, willful and without regard to Garmin's or the consuming public's rights.

178. Garmin is informed and believes that Navico has gained profits by virtue of its infringement of Garmin's "TracBack®" mark.

179. Garmin will suffer and is suffering irreparable harm from Navico's infringement of Garmin's "TracBack®" mark because Garmin's invaluable good will is being eroded by Navico's continuing infringement. Garmin has no remedy at law to alleviate the likely market harms it has, and continues to, suffer as a result of Navico's willful infringement, such as the loss of business reputation, customers, market position, confusion of potential customers and good will.

180. Garmin is entitled to an injunction, pursuant to 15 U.S.C. § 1116, against Navico's continuing infringement of Garmin's "TracBack®" mark. Unless enjoined, Navico will continue its infringing conduct.

181. Because Navico's actions have been committed with intent to damage Garmin and to confuse and deceive the public, Garmin is entitled to treble its actual damages or Navico's profits, whichever is greater, and to an award of costs and, this being an exceptional case, reasonable attorneys' fees pursuant to 15 U.S.C. § 1117(a) and 1117(b).

#### **COUNT 5: COMMON LAW TRADEMARK INFRINGEMENT**

182. Garmin realleges and incorporates by reference the allegations set forth in paragraphs 1-181 above.

183. Garmin enjoys prior and senior rights in the mark "TracBack®" in the marine products industry.

184. Navico's use of its infringing "TrackBack™" mark towards identical consumers is likely to cause confusion, or to cause mistake, or to deceive the consumer as to the affiliation, connection or association of Navico with Garmin, or as to the origin, sponsorship, or approval by

Garmin of Navico's goods, services or commercial activities, as described herein.

185. Navico's use of the infringing "TrackBack™" mark enables Navico to benefit unfairly from two-decades of established brand-value, reputation, and success, thereby giving Navico's infringing products sales and commercial value they would not have otherwise.

186. Prior to Navico's first use of the infringing "TrackBack™" mark, Navico was aware of Garmin's business and had either actual notice and knowledge, or constructive notice of Garmin's registered "TracBack®" mark.

187. Navico's unauthorized use of the infringing "TrackBack™" mark is likely, if not certain, to deceive or to cause confusion or mistake among consumers as to the origin, sponsorship or approval of the Navico line of products and/or to cause confusion or mistake as to any affiliation, connection or association between Garmin and Navico.

188. Garmin is informed and believes, and on that basis alleges, that Navico's infringement of Garmin's registered "TracBack®" mark has been and continues to be knowing, intentional, willful, and without regard to Garmin's rights or concern for the consuming public.

189. On information and belief, Navico has gained profits by virtue of its infringement of Garmin's registered "TracBack®" mark.

190. Garmin has suffered, and will continue suffering, irreparable harm from Navico's infringement of Garmin's registered "TracBack®" mark because Garmin's invaluable good will is being eroded by Navico's willful and continuing infringement.

191. Garmin has no adequate remedy at law to compensate it for the loss of business reputation, customers, market position, confusion of potential customers and good will flowing from the Navico's infringing activities.

192. Garmin is entitled to an injunction against Navico's continuing infringement of



Garmin's registered "TracBack®" mark.

193. Unless enjoined, Navico will continue its infringing conduct.

194. Because Navico's actions have been committed with intent to harm and damage Garmin and to confuse and deceive the public, Garmin has been damaged and will continue to be damaged in an amount not yet determined or ascertainable. Garmin is entitled to injunctive relief, as well as an accounting of Navico's profits, actual damages, punitive damages, attorneys' fees, the costs of this action, and any and all other relief authorized by law.

**COUNT 6: FALSE DESIGNATION AND UNFAIR COMPETITION (15 U.S.C. § 1125(a))**

195. Garmin realleges and incorporates by reference the allegations set forth in paragraphs 1-194 above.

196. This claim is brought under 15 U.S.C. § 1125(a).

197. Navico's unauthorized use of the "TracBack®" mark in their "TrackBack™" trademarks in commerce, and in connection with the sale offering for sale, distribution, or advertising of competing goods/services, unfairly competes with Garmin's established brand value and goodwill, as well as Garmin's goods/services.

198. Navico's acts of willful infringement constitute a false designation of origin and false description, and falsely represents to the public that the Navico goods/services advertised, sold, or offered for sale by Navico originate from the established "TracBack®" marine industry brand built by Garmin, or otherwise suggests that Garmin authorizes, endorses, sponsors, or otherwise approves those goods/services, when Garmin does not.

199. Navico, with knowledge of such falsity, directly and/or indirectly, launched, offered, advertised, and sold goods/services in direct competition with Garmin and navigation-related marks confusingly if not deceptively similar to Garmin's registered and incontestable "TracBack®" mark.

200. Navico's use of the infringing "TrackBack™" mark was without Garmin's permission. Navico is not affiliated with Garmin, or Garmin's registered and incontestable "TracBack®" mark.

201. Navico's acts constitute false designation of origin, false suggestion and false connection with the "TracBack®" mark and unfair competition in violation of 15 U.S.C. § 1125(a).

202. Navico's willful misconduct makes this an exceptional case, entitling Garmin to have any monetary remedies increased up to treble damages, and to recover its attorneys' fees under 15 U.S.C. § 1117.

203. Garmin has been and will continue to be irreparably injured by Navico's conduct. Plaintiff cannot be adequately compensated for these injuries by monetary remedies.

**COUNT 7: UNFAIR BUSINESS PRACTICES/COMPETITION UNDER KANSAS LAW**

204. Garmin realleges and incorporates by reference the allegations set forth in paragraphs 1-203 above.

205. As described above, Navico's acts have created, and unless restrained by the Court, will continue to create, a likelihood of confusion and deception among the consuming public, causing irreparable injury to Garmin for which Garmin has no adequate remedy at law.

206. Navico's conduct constitutes unfair competition under the common law of Kansas by a deliberate course of conduct, all without authorization, license, privilege, or justification.

207. Navico has acted with full knowledge of Garmin's use of the "TracBack®" mark and without regard to the likelihood of confusion and deception of the public created by those activities.

208. Navico's conduct demonstrates an intentional, willful and malicious intent to

trade on the goodwill associated with Garmin to the substantial and irreparable injury of Garmin.

209. As a result of Navico's acts, Garmin has been damaged and will continue to be damaged in an amount not yet determined or ascertainable. Garmin is entitled to injunctive relief, as well as an accounting of Navico's profits, actual damages, punitive damages, attorneys' fees, the costs of this action, and any and all other relief authorized by law.

### **PRAYER FOR RELIEF**

Wherefore, Garmin requests entry of judgment in its favor and against Navico and C-MAP as follows:

- A. Enter judgment that Navico and C-MAP have willfully infringed the '703 patent;
- B. Enter judgment that Navico has willfully infringed the '987 patent;
- C. Enter judgment that Navico and C-MAP have induced, willfully, infringement of the '703 patent;
- D. Enter judgment that Navico and has induced, willfully, infringement of the '987 patent;
- E. Enter judgment that Navico and C-MAP have contributed, willfully, to infringement of the '703 patent;
- F. Enter judgment that Navico has contributed, willfully, to infringement of the '987 patent;
- G. Enter a permanent injunction restraining and enjoining Navico and C-MAP, and their respective officers, agents, servants, employees, attorneys and those persons in active concert or participation with Navico and C-MAP who receive actual notice of the order by personal services or otherwise, from any further sales or use of their infringing products and/or services and any other infringement of the '703 and '987 patents, whether direct or indirect;
- H. For damages to compensate Garmin for Navico and C-MAP's infringement of the '703

and '987 patents pursuant to 35 U.S.C. § 284;

- I. For enhanced damages pursuant to 35 U.S.C. § 284;
- J. For an award of pre-judgment and post-judgment interest and costs to Garmin in accordance with 35 U.S.C. § 284;
- K. For an award of Garmin's reasonable attorneys' fees pursuant to 35 U.S.C. § 285;
- L. Enter a permanent injunction requiring that Navico, its officers, agents, servants, employees and attorneys, and all those persons or entities in active concert or participation with any of them who receive actual notice of the injunctive order be enjoined, preliminarily and permanently from (1) selling, offering for sale, advertising, promoting, distributing, marketing, or exploiting in any other way the TrackBack™ mark or any other mark confusingly similar to Garmin's TracBack® mark in connection with marine navigational devices or related goods and services; and (b) committing any other act calculated or likely to cause the public to believe that Garmin and Navico are in any manner connected, affiliated or associated with one another or otherwise competing unfairly with Garmin;
- M. Pursuant to 15 U.S.C. § 1116(a), that Navico be directed to file with the Court and serve on Garmin, within thirty (30) days after entry of final judgment, a report in writing and under oath setting forth in detail the manner and form by which it has complied with the provisions set forth in paragraph I above;
- N. That Navico be ordered to undertake or compensate Garmin for the cost of corrective advertising and other corrective measures reasonably calculated to attempt to mitigate the confusion caused by Navico's infringing conduct;
- O. Pursuant to 15 U.S.C. § 1118, that Navico destroy all labels, signs, prints, packages,

wrappers, receptacles, and advertisements that bear the infringing TrackBack™ mark, and all means of making the same;

- P. Pursuant to 15 U.S.C. § 1117(a), that Navico be directed to account to Garmin for all gains, profits and advantages derived from Navico's wrongful acts;
- Q. Pursuant to 15 U.S.C. § 1117(a), that Garmin recover from Navico its profits and any damages sustained by Garmin by reason of Navico's infringing activities, trebled as allowed by law, together with interest on such amount and the costs of this action;
- R. Pursuant to 15 U.S.C. § 1117(a), that Gamin recover from Navico its attorneys' fees and costs of this action;
- S. Actual damages suffered by Garmin as a result of Navico's unlawful conduct, in an amount to be proven at trial, as well as prejudgment interest as authorized by law;
- T. Punitive damages pursuant to Kansas Annotated Statute § 60-3702; and
- U. For such other and further relief as the Court may deem just, proper, and equitable under the circumstances.

#### **DEMAND FOR JURY TRIAL**

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

#### **DESIGNATION OF PLACE OF TRIAL**

Garmin hereby designates Kansas City, Kansas as place of trial pursuant to Local Rule

40.2.

Dated: September 1, 2017

Respectfully Submitted,

/s/ Aaron Hankel

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**CERTIFICATE OF SERVICE**

I hereby certify that a true and accurate copy of the foregoing Garmin s Second Amended Complaint for Patent Infringement, Trademark Infringement, False Designation, and other Unfair Acts was electronically filed on this 1st day of September 2017, with the Clerk of the Court using the CM/ECF system, which sent notification of filing to all attorneys of record.

/s/ Aaron Hankel

Aaron Hankel

Attorney for Plaintiff