

# PORTABLE FLIGHT SOLUTIONS

PURPOSE-BUILT HANDHELDS AND APPS FOR PILOTING YOUR OWN COURSE



Garmin®

PORTABLE

## THE FAST-EVOLVING WORLD OF PORTABLE GPS

It wasn't so very long ago that the words "aviation portable" could be used to categorize, fairly concisely, a segment of stand-alone GPS handheld products. But nowadays with the emergence of sophisticated navigation, mapping and digital flight bag apps for iPads®, smartphones and other tablet-type computer devices, the very idea of what constitutes a "portable product" for aviation has taken on a whole new range of meanings.

What's more, the industry's accelerating move toward the NextGen airspace system has brought with it an array of new cockpit connectivity options, including subscription-free U.S. weather, NEXRAD imagery and ADS-B traffic monitoring services, which now can all be accessed easily via portable, pocket-sized datalink receivers that pilots can carry with them into any aircraft they fly. Moreover, a number of these products now include their own wireless local link capabilities (via our Garmin Connex<sup>®</sup> technology), which enable them to remotely connect, control, activate and/or "talk with each other" in ways that promise even greater things to come.

In other words, it's a new world out there.

But rest assured, it's a world where Garmin innovation continues to set the pace, with the performance, value and first-in-class features that make GPS-based navigation truly portable and affordable for everyone who flies.

Designed for pilots by pilots, our portable solutions are known for their reliability, durability, practicality, safety-enhancing features and simplicity of operation – no matter what hardware and/or software configuration they might take. They've all been tested and optimized for use in demanding cockpit environments. And they're backed by the most highly acclaimed service and support network in the aviation industry. No wonder pilots around the globe look to Garmin as their go-to source for today's best in portable flight technology.

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## DEDICATED GARMIN GPS PORTABLES BRING CARRY-ON CONVENIENCE TO FLIGHT NAVIGATION

Featuring cockpit-proven technology that's optimized for pilot use in ways that most generic GPS devices or apps clearly are not, the Garmin aviation portable lineup puts the absolute best in satellite-based flight guidance right at your fingertips. No matter which model you select, you can count on Garmin aera® series portables to provide the features, reliability, processing power and onboard resources to help you make better piloting decisions. Each navigator comes with detailed aerial mapping, a built-in terrain/obstacles database and WAAS GPS position accuracy. And you can display SiriusXM® satellite weather and entertainment<sup>1</sup>, as well as subscription-free ADS-B weather and traffic, with an optional receiver (sold separately).

<sup>1</sup>Active subscriptions are required for optional SiriusXM weather and audio entertainment packages (sold separately). XM coverage area is limited to continental U.S. and its coastal regions, as well as southern Canada (active subscriptions required).

## PURPOSE-BUILT FOR AVIATION, DESIGNED FOR TRUE PORTABILITY

Our sleek aera® 760, with its 7" display, and aera® 660, with its 5" display, are the most powerful, most robust, most capable aviation handhelds we've ever designed in formats this compact. And they provide the features, reliability, processing power and onboard resources to help you make better piloting decisions. Each navigator comes with detailed aerial mapping, a built-in terrain/obstacles database and WAAS GPS position accuracy. And you can display SiriusXM® satellite weather and entertainment<sup>1</sup>, as well as subscription-free ADS-B weather and traffic, with an optional receiver (sold separately).

Both can quickly and reliably acquire GPS and GLONASS satellite constellations, combining advanced navigation tools with detail-rich flight mapping. You can even access weather via Wi-Fi® anywhere you have an internet connection to give you more planning options before heading to the airport.

They also deliver an intuitive touchscreen interface that allows you to quickly pan across the map screen – or pinch-to-zoom for the exact map scaling you want to see. Our signature Direct-to feature is always available, so it's easy to command navigation functions or find the nearest airports from any page on the display. You can even use optional maps

to locate street intersections and other non-aviation waypoints. Additionally, the aera 760 allows you to enter airway segments into flight plans, as well as visualize and plan departures, arrivals and approaches – and even see approach plates overlaid on the map.

With either navigator, a quick touch of the power button on top of the bezel gives you the option of switching between portrait and landscape view at any time. This button can also be used to control the audio volume, mute aural alerts, adjust display brightness and access other basic settings.

For added perspective, Garmin 3D Vision technology leverages a worldwide terrain database to give you a virtual 3-D, behind-the-aircraft view of the surrounding landscape, while overlaying GPS-derived airspeed, altitude and vertical speed alongside flight plan information. When you connect the devices to an attitude source, such as a GDL® 52 series or compatible Garmin avionics, Garmin SVX™ synthetic vision and attitude command bars can be automatically added to your display as well. And when integrated with your compatible panel-mounted avionics, they can also provide coupled lateral and VFR vertical guidance to your GFC™ 500 or G3X™ autopilot, allow you to upload radio frequencies into

the standby position of select Garmin Comm radios and provide GPS position that enables Garmin GTR 225 Comm and GNC® 255 Nav/Comm to look up nearest frequencies.

Comprehensive chart options provide an easy pathway to paperless cockpit operations – and the aera 660 and aera 760 can be qualified for use as an electronic flight bag. View georeferenced VFR sectional and IFR en route charts for the U.S., Canada and Europe. SafeTaxi® charts for the U.S., Canada and Europe are also available, as are an AOPA Airport Directory and a worldwide AC-U-KWIK directory. Local fuel prices for U.S. airports can be easily accessed on the map – with the best nearby prices highlighted – or within the directory database so you'll know where to plan your fuel stops.

Other aera 660 and aera 760 technology highlights include vertical navigation guidance, Smart Airspace™ display, WireAware™ wire-strike avoidance technology, Wi-Fi® database downloading, TargetTrend™ and TerminalTraffic™. And both devices are compatible with the cost-effective Garmin navigation database. For the money – and for the performance – the aera series is truly in a class by itself.

<sup>1</sup>Active subscriptions are required for optional SiriusXM weather and audio entertainment packages (sold separately). XM coverage area is limited to continental U.S. and its coastal regions, as well as southern Canada (subscriptions required).

Preloaded SafeTaxi® diagrams with georeferencing capability aid navigation on unfamiliar airports. With a compatible ADS-B "In" receiver (sold separately), Garmin TerminalTraffic™ technology can also display nearby ADS-B equipped surface targets.







Database-driven 3D Vision display offers a simulated terrain view in context with your aircraft. You can rotate the 3-D view completely around the aircraft for easy scanning from various "camera ship" perspectives.



With ADS-B "In" data from compatible devices (sold separately), the aera 660 and aera 760 can display subscription-free U.S. weather and traffic, overlaid on the moving map.



For low-flying helicopters and patrol aircraft, Garmin WireAware™ wire-strike avoidance technology offers added protection against powerline incidents.



An available AOPA Airport Directory provides data on thousands of U.S. airports. (A worldwide AC-U-KWIK directory is available optionally.)



With ADS-B "In" from a compatible receiver (sold separately), the aera 660 and aera 760 can display traffic enhanced with Garmin TargetTrend™ technology, which shows target trajectories relative to your aircraft.



IFR Enroute and VFR Sectional charts for the U.S. feature georeferencing capability — with an overlaid aircraft symbol indicating your current position.

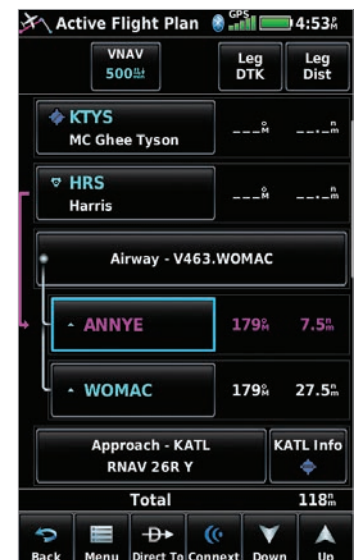
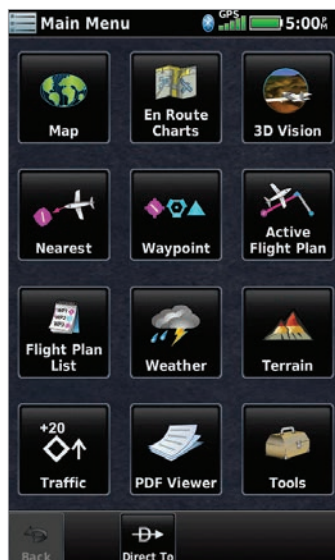


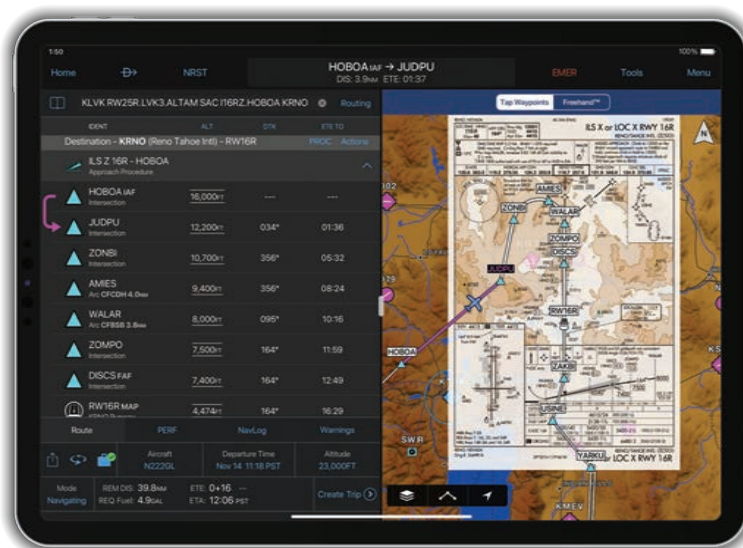
SiriusXM® weather<sup>1</sup> can overlay the moving map, while SiriusXM satellite radio support lets you enjoy 150+ audio channels<sup>1</sup>.

## SPECIFICATIONS

Receiver	High-sensitivity, WAAS-enabled GPS plus GLONASS
Waypoints	3,000
Routes	50 with up to 300 points each
Basemap	North America, South America, Atlantic or Pacific
Uploadable maps	Supports optional detailed maps
Battery life	Up to 4 hours (nominal) based on backlight and connectivity
Size	5.5"W x 3.4"H x 0.8"D (aera 660) / 7.29"W x 4.85"H x 0.91"D (aera 760)
Display size	5.08" diagonal (12.9 cm) / 7" Diagonal (17.8 cm)
Weight	8.64 oz (aera 660) / 19.8 oz (aera 760) with battery

<sup>1</sup>Subscriptions are required for optional SiriusXM weather and audio entertainment packages (sold separately). XM coverage area is limited to continental U.S. and its coastal regions, as well as southern Canada (subscriptions required).





## CLEAR YOUR TABLET FOR TAKEOFF WITH OUR GARMIN PILOT™ APP

With an expanded suite of tools for preflight planning and in-flight operations on both VFR and IFR flights, Garmin Pilot lets you turn a whole array of Apple®- and Android™-based mobile devices (including Apple's iPad®, iPhone® as well as other popular smartphones and tablets) into some of the most versatile piloting tools you've ever slipped into a flight bag.

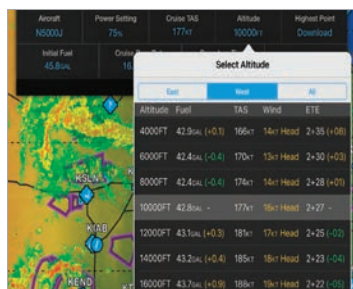
Garmin continues to pack more features and capabilities into Garmin Pilot to make it aviation's premier, all-in-one application — merging flight-plan data with other information such as integrated weight-and-balance calculations, aircraft performance tables and more. Freehand flight planning allows for quick and easy editing of flight plans directly from the moving map page. And pilot-configurable checklists let you create custom checklists that are quickly accessible from within the app.

Global in its scope and coverage, the Garmin Pilot app features detail-rich interactive mapping and charts, advanced MFD-like navigation capabilities, complete global flight planning, and airport directory and weather briefing resources — plus available in-flight weather and traffic display link<sup>1</sup>.

The app's easy-to-use menu icons mirror those of

the newest Garmin touchscreen avionics — with a graphic interface that allows you to quickly pan across the display and pinch-to-zoom to scale the map view up or down. Using your unit's internal (or compatible external) GPS reference, Garmin Pilot provides en route navigation on its moving map display, while keeping track of your ETE, ETA, crosstrack error, distance to waypoint and more. Smart Airspace™ automatically highlights airspace features close to your current altitude<sup>1</sup>, providing you with increased situational awareness. You can set airspace alerts that notify you before you enter selected airspace types<sup>2</sup>. And you can create a hold over an existing fix or custom waypoint and add search and rescue patterns, including parallel track, sector, expanding square, orbit or CAP grid, right to your flight plan<sup>2</sup>.

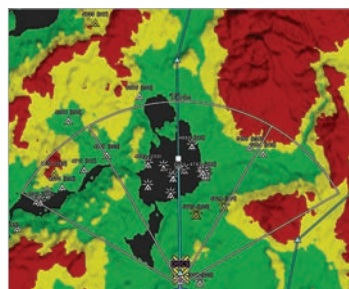
Look ahead to preview changing weather conditions along your route, while connected to the internet, a GDL® 52 series portable receiver or other Connex™-capable avionics. And the radar overlay on the moving map can display the projected path of a storm cell to show you where it's predicted to be in 15-, 30-, 45- and 60-minute intervals. The flight profile view even allows you to see the probability or severity of icing at particular altitudes. Plus, with a GDL 52 series receiver and a SiriusXM® aviation



Aircraft performance tables in Garmin Pilot make it easy to input figures for such calculations as power setting and fuel/distance profiles. Calculations take into account such factors as outside air temperature, altitude and more.



Make IFR flight planning and flying easier by adding airways and IFR procedures — including approaches, arrivals, departures and more — to your route.



A terrain and obstacle database provides high-resolution contour mapping to show your aircraft's proximity to potentially hazardous terrain or obstacles such as towers, while providing audible and visual cautions and warnings as you near these obstructions.



Garmin Pilot is global in scope. Its highlights for international pilots include available FliteCharts® for Europe, Canada and the U.S. — as well as DFS charts and detail-rich surface mapping with visual reporting points.

<sup>1</sup>Requires supported receiver

<sup>2</sup>Available on Apple devices

<sup>3</sup>Not intended to be used as a source of altitude information for flight in instrument meteorological conditions and should not be used under these conditions

<sup>4</sup>In addition to altitude, the GDL 52 series also provides built-in GPS positioning reference





weather subscription, you can view the surface analysis report – including isobars, pressure systems, fronts, troughs and more – on the moving map.

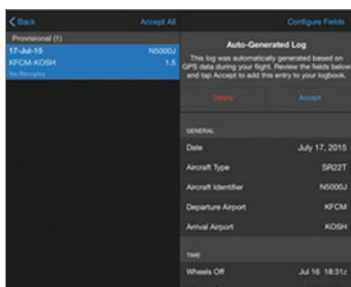
VFR sectional or IFR en route charts can be selected for navigation. On IFR flights, you can visualize, plan and fly terminal procedures, including departures, arrivals and approaches, and even add published crossing restrictions and custom altitude references to your flight plan – including a fix between two waypoints for a reminder of altitude changes. Procedure Selector allows you to more easily determine expected procedures and transitions by visualizing all options on a map. And with a few taps you can download all route data necessary for a flight before takeoff to ensure you have everything you need right on the device<sup>2</sup>.

Garmin Pilot also allows you to establish personal minimums for VFR, IFR, and wind speed, gust and crosswind components in both day and night conditions. Plus, a unique radial menu offers easy on-screen access for creating user waypoints or navigating Direct-To, and you can view current weather conditions and airport/navaid information at a glance.

Global terrain and obstacle data, as well as obstacle alerting and detail-rich surface mapping with visual reporting points, is also available. In addition to U.S. charts, IFR and VFR aeronautical chart coverage is available for Europe and Canada, providing valuable information such as radio frequencies, airspace boundaries, landmark information and so on. Garmin Pilot also includes European VFR navigation data to support the unique needs of VFR pilots with airport traffic patterns, en route holding patterns, TMZ/RMZ airspaces and more<sup>2</sup>. As an option, Garmin Pilot is also available with mapping formats and global navigation data powered by Jeppesen® as well as Jeppesen electronic charts.

With Database Concierge, Garmin Pilot allows you to wirelessly update the aviation databases of your compatible avionics. At home you can simply select the individual databases on Garmin Pilot, download them and then store them to your mobile device. Then, at the airport, once your device establishes a wireless connection in the airplane, Garmin Pilot will transfer your up-to-date databases directly to the compatible avionics in minutes, where they'll wait in standby until their effective dates. This app-to-avionics interface really saves you time and tedious data entry – so you can complete your checklist items quicker and get airborne sooner.

To further extend your tablet's capability, you can wirelessly link – via Garmin Connext – to a portable GDL 52 series receiver. That connection not only lets you access subscription-free weather and uplinked ADS-B traffic, but it also adds reliable backup attitude reference<sup>3</sup> to enable 3-D Vision with virtual terrain, horizon cues, HSI, airspeed, altitude and vertical speed reference all integrated on the flight display<sup>4</sup>. Along with this, the datalinked traffic is enhanced with our exclusive TargetTrend™ relative motion tracking technology to help you better visualize traffic trajectories and closing rates in relation to your flight path. You can even pinch-to-zoom on the traffic page to zoom in and out on traffic targets. And once you've landed, Garmin TerminalTraffic™ technology also enables ADS-B equipped surface targets to be displayed on the SafeTaxi® diagram so you can see what's happening, traffic-wise, on busy runways and taxiways. Better still, at the end of your flight, there's even a handy logbook feature in Garmin Pilot that will automatically capture and record your total flight time from takeoff to landing – as well as day/night recency for FAR requirements. This feature also provides a place for logbook endorsements, and it even syncs in the cloud with flyGarmin to keep all your flight entries up to date.



Garmin Pilot can serve as your electronic logbook. It tracks date, time, aircraft, arrival/departure airports, landings and more. Plus, it will automatically log your total time from takeoff to landing.



The exclusive NavTrack feature on the display lets you "look ahead" to preview changing weather conditions along your route of flight.



Optional SafeTaxi diagrams with georeferencing capability help you navigate on unfamiliar airports. With an optional GDL 52 series receiver, TerminalTraffic technology displays ADS-B equipped surface targets right on these diagrams.



With an optional GDL 52 ADS-B receiver, Garmin Pilot can display subscription-free weather and datalink traffic. Traffic displays with our patented TargetTrend technology that shows traffic trajectories relative to your aircraft.

## FLY ANYWHERE, CONNECT ANYTIME

With inReach® satellite technology from Garmin, plus a satellite subscription, you can stay in touch everywhere you fly — from cross-country to the back country to far away from cell phone service. That means you can still send and receive messages, navigate your route, track and share your journey with friends and, if necessary, trigger an SOS to get emergency help and more — all on the global Iridium® satellite network<sup>1</sup>.

Pair the inReach® Mini, our lightest weight, most compact satellite communicator, via BLUETOOTH® technology to a compatible tablet or smartphone running Garmin Pilot™, and you can easily send and receive text messages while in the cockpit. The app even pulls in your smart device's contact lists, which makes it simple and seamless.

And because your inReach Mini is also a handheld GPS, Garmin Pilot can leverage its rock-solid position source to provide high-resolution position information to your tablet's moving map display. Plus, for your followers on the ground, inReach Mini can provide tracking of your flight — using the web-based MapShare™ page created for your inReach account or via FlightAware.com. You can also link via Facebook® or Twitter®.

Your inReach Mini also offers automatic monitoring provided by the SE-SAR service, which allows the system to identify potential emergency signals to promptly initiate search and rescue procedures for your aircraft. Likewise, it's also a supported device for the FlightService Adverse Condition Alerting Service (ACAS). If you register for ACAS information, alerts provided via FlightService prompt you to call for an abbreviated

briefing to address specific adverse conditions that might affect your flight-planned routing.

And inReach Mini is tough, durable, impact-resistant (MIL-STD-810F) and water-resistant<sup>2</sup>, and it's built to keep you ready for any flight. It includes an internal, rechargeable lithium battery for up to 50 hours use at the default 10-minute tracking mode and up to 20 days in power-saving mode. And you can recharge via the microUSB power cable or optional in-vehicle 12-V charger.

Of course, if you need more capabilities on your adventures, you might also consider the inReach® SE+ or inReach® Explorer+. Both offer advanced GPS navigation on the ground — including adding waypoints to mark key locations, tracking your progress and recording breadcrumbs back to your basecamp — but Explorer+ also provides preloaded topographic maps, and a built-in compass, barometric altimeter and accelerometer to help you find your route accurately, even while off the beaten path. Plus, all three inReach devices offer optional weather forecasting for detailed updates directly to your device or compatible smartphone or tablet paired with the Garmin Earthmate® app so you'll know what conditions to expect while on the trail. And they can also trigger an SOS alert that contacts the GEOS 24/7 emergency response team should you have a problem away from your aircraft.

An active satellite subscription is required to access the Iridium network and communicate with your inReach device. Options based on your usage level allow you to opt for an annual contract package or flexible month-to-month airtime plan.

<sup>1</sup>Satellite subscription required. Some jurisdictions regulate or prohibit the use of satellite communication devices. It is your responsibility to know and follow all applicable laws in the jurisdictions where the device is intended to be used.

<sup>2</sup>See [Garmin.com/waterrating](http://Garmin.com/waterrating)









## D2 DELTA S SPECIFICATIONS

<b>Lens material</b>	Domed sapphire crystal
<b>Bezel material</b>	Stainless steel
<b>Case material</b>	Fiber-reinforced polymer with metal rear cover
<b>QuickFit™ watch bands</b>	Yes (20 mm)
<b>Strap material</b>	Silicone and leather
<b>Physical Size</b>	42 x 42 x 15.4 (mm)
<b>Weight</b>	65g
<b>Water Rating</b>	10 ATM
<b>Display type</b>	Sunlight-visible, transfective memory-in-pixel (MIP)
<b>Display size</b>	1.2 in (30.4 mm) diameter
<b>Display resolution</b>	240 x 240
<b>Color display</b>	Yes
<b>Battery life</b>	Smartwatch: up to 7 days GPS: up to 11 hours GPS + Music: up to 4.5 hours UltraTrac™ mode: up to 25 hours
<b>Memory/History</b>	16 GB

## D2 DELTA SPECIFICATIONS

<b>Lens material</b>	Domed sapphire crystal
<b>Bezel material</b>	Titanium
<b>Case material</b>	Fiber-reinforced polymer with metal rear cover
<b>QuickFit™ watch bands</b>	Yes (22 mm)
<b>Strap material</b>	Silicone and leather
<b>Physical Size</b>	47 x 47 x 15.8 (mm)
<b>Weight</b>	76g
<b>Water Rating</b>	10 ATM
<b>Display type</b>	Sunlight-visible, transfective memory-in-pixel (MIP)
<b>Display size</b>	1.2 in (30.4 mm) diameter
<b>Display resolution</b>	240 x 240
<b>Color display</b>	Yes
<b>Battery life</b>	Smartwatch: up to 12 days GPS: up to 18 hours GPS + Music: up to 8 hours UltraTrac™ mode: up to 42 hours
<b>Memory/History</b>	16 GB

## D2 DELTA PX SPECIFICATIONS

<b>Lens material</b>	Domed sapphire crystal
<b>Bezel material</b>	Titanium
<b>Case material</b>	Fiber-reinforced polymer with metal rear cover
<b>QuickFit™ watch bands</b>	Yes (26 mm)
<b>Strap material</b>	Silicone and titanium
<b>Physical Size</b>	51 x 51 x 17.5 (mm)
<b>Weight</b>	87g
<b>Water Rating</b>	10 ATM
<b>Display type</b>	Sunlight-visible, transfective memory-in-pixel (MIP)
<b>Display size</b>	1.2 in (30.4 mm) diameter
<b>Display resolution</b>	240 x 240
<b>Color display</b>	Yes
<b>Battery life</b>	Up to 20 days GPS: up to 32 hours GPS+SPO2: up to 18 hours GPS + Music: up to 13 hours UltraTrac™ mode: up to 70 hours
<b>Memory/History</b>	16 GB

Smart mode: activity tracking, 24/7 heart rate (compatible devices), and BLUETOOTH connectivity



## GPS NAVIGATION AT YOUR FINGERTIPS FROM THE TIMEPIECE ON YOUR WRIST

The Garmin D2™ family of premium GPS aviator watches was the first to put true global flight navigation capability on the wrists of forward-looking pilots and flying enthusiasts. Our D2™ Delta series takes this technology to whole new levels of capability and connectivity — in three distinct designs that accent your style while helping to navigate your day with advanced aviation and sportwatch functions.

Using a built-in worldwide airport database, D2 Delta lets you access our signature Direct-To and Nearest routing functions by simply pressing either dedicated button. You can also view your flight path on the watch's full-color moving map — or follow the instrument-like HSI course needle to your destination.

Add work-saving convenience with one of our compatible Connect® devices (sold separately) to stream information between your compatible Garmin GPS navigator or flight deck and your D2™ Delta. The synced GPS position data enables even more precise mapping detail on your watch. Plus, you can view other information, such as altitude, airspeed, magnetic heading, outside air temperature and more in real time, using a customizable data field display.

The D2 Delta series also works wirelessly with your compatible smartphone<sup>1</sup> to access location-based meteorological reports (METARs) and terminal forecasts (TAFs), as well as NEXRAD radar overlaid on the moving map. So you can easily access the data you need for smart decision making. Plus, vibration alerts to let you know when you've drifted off course or reached your airport's recommended pattern altitude. And a baro-based O2 altitude alert feature will vibrate to remind you when supplemental oxygen is required above 12,500' — and the PX model even allows you to monitor your Pulse Ox levels while in-flight.<sup>2</sup>

Wherever you are, the D2 Delta series also ensures your favorite tunes are always right at hand, with on-device music storage for up to 500 songs. Play them through your audio panel or headphones enabled with BLUETOOTH® technology<sup>3</sup> (sold separately), or even sync playlists from select music streaming services for more ad-free listening on the go. And to help keep pace with your active lifestyle, all D2 Delta models feature our Garmin Pay™ contactless payment solution<sup>4</sup>, so you can pay for purchases while leaving your cash and cards at home.

<sup>1</sup>When paired with a compatible smartphone; see [Garmin.com/ble](http://Garmin.com/ble)

<sup>2</sup>This is not a medical device and is not intended for use in the diagnosis or monitoring of any medical condition; see [Garmin.com/ataccuracy](http://Garmin.com/ataccuracy). Pulse Ox not available in all countries.

<sup>3</sup>Requires compatible BLUETOOTH listening device (A2DP BLUETOOTH profile)

<sup>4</sup>View current supported country, payment network and issuing bank information at [Garmin.com/GarminPay/banks](http://Garmin.com/GarminPay/banks)



## D2™ AIR. THE SLIM AND STYLISH SMARTWATCH FOR PILOTS WITH A VIVID TOUCHSCREEN.

Finally there's a smartwatch that keeps up with you — from your workout to the office to your next flight. No matter what your schedule holds, the beautiful AMOLED display brings the watch to life, even in a bright cockpit. And the aviation-themed watch face shows your passion for the sky.

As part of the D2 family, you know it's packed with pilot tools that add awareness to flights. View METARs and TAFs<sup>1</sup> and access airport information, including frequencies and pattern altitudes. Select Nearest for headings to the closest navaid — or Direct-to and navigate to the nearest airport — then check your course with the horizontal situation indicator. Transfer your flight plan from the Garmin Pilot™ app<sup>2</sup> to D2 Air and view the list of waypoints included in your route. You can even reference the baro-adjustable altimeter and set alerts and timers for in-flight tasks — such as using supplemental oxygen or changing fuel tanks. Plus, you can monitor your Pulse Ox<sup>3</sup> to gauge how your body is adjusting to altitude. Back on the ground, D2 Air automatically logs flight activities and uploads them post-flight to your flyGarmin.com logbook.

D2 Air also fits perfectly into your everyday life around town. View smart notifications<sup>1</sup>, including calls and texts. Listen to phone-free music through your audio panel or headphones enabled with BLUETOOTH® technology<sup>4</sup> (sold separately). Use Garmin Pay™ contactless payment when

you shop<sup>5</sup>. And measure your heart rate, stress, respiration rate, hydration — and even your sleep<sup>6</sup>.

To help you stay fit to fly, D2 Air tracks your fitness with animated workouts, sports apps, personal running coaching and custom workouts you build yourself with Garmin Connect™ app. And it matches your energetic pace with exceptional battery life — including more than 5 days using smart notifications and preflight tools or 6 hours of continuous GPS use while flying or exercising.

### D2 AIR SPECIFICATIONS

<b>Lens material</b>	Corning® Gorilla® Glass 3
<b>Bezel material</b>	Stainless Steel
<b>Case material</b>	Fiber-reinforced polymer with polymer rear cover
<b>Quick release bands</b>	Yes
<b>Strap material</b>	Leather and silicone
<b>Physical size</b>	43.3 x 43.2 x 12.4 (mm)
<b>Weight</b>	46.3g
<b>Water rating</b>	5 ATM
<b>Display type</b>	AMOLED
<b>Display size</b>	1.2 in (30.4 mm) diameter
<b>Display resolution</b>	390 x 390
<b>Color display</b>	Yes
<b>Battery life</b>	Smartwatch mode: up to 5 days GPS mode with music: up to 6 hours GPS mode without music: up to 20 hours GPS+SP02: up to 10 hours

<sup>1</sup>When paired with a compatible smartphone; see Garmin.com/ble

<sup>2</sup>Requires app on your compatible smartphone paired to the D2 Air

<sup>3</sup>This is not a medical device and is not intended for use in the diagnosis or monitoring of any medical condition; see Garmin.com/ataccuracy. Pulse Ox not available in all countries.

<sup>4</sup>Requires compatible BLUETOOTH listening device (A2DP BLUETOOTH profile)

<sup>5</sup>View current supported country, payment network and issuing bank information at Garmin.com/GarminPay/banks

<sup>6</sup>See Garmin.com/ataccuracy; sleep tracking is available when paired with a compatible smartphone (see Garmin.com/ble)







## HIGHER-PRECISION GPS FOR YOUR TABLET OR MOBILE DEVICE WITH GARMIN GLO™

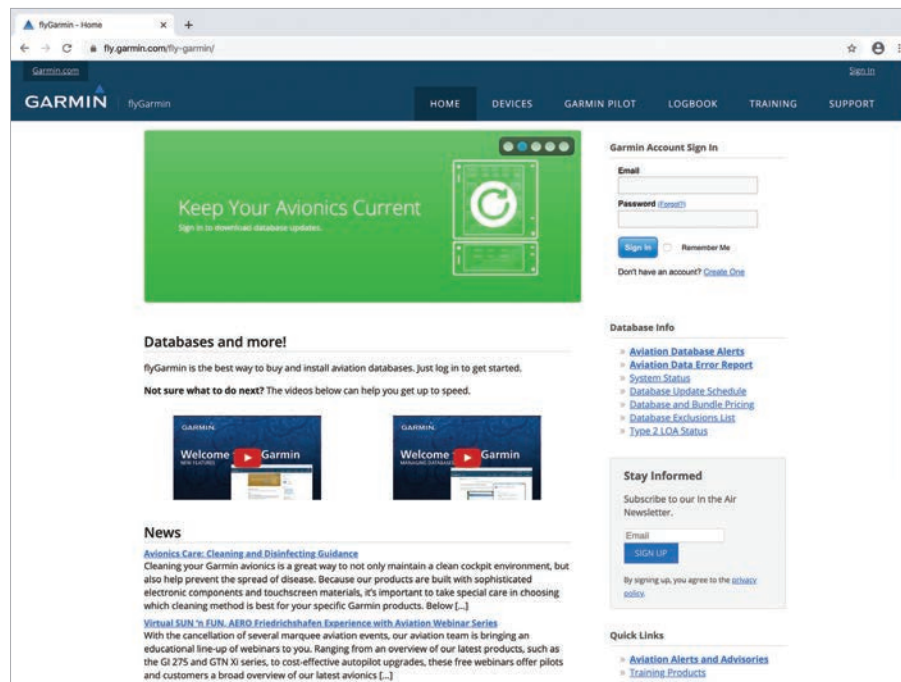
If you've tried to do airborne navigation with the typical built-in GPS on many of today's tablet computers or other smart devices, you know how frustrating that can be. Too often these units simply aren't up to the task of providing the robust, high-precision guidance you expect from a Garmin-grade GPS navigator. That's why it makes sense to upgrade your signal with a Garmin GLO™ portable receiver. This light, compact, easy-to-use portable solution is able to receive its position information from both GPS and GLONASS constellations, adding 24 extra satellites to the mix – and assuring you of the best, most accurate positioning solutions worldwide. Your GLO wireless sensor can lock on to satellites some 20% faster than most single-network receivers. And its high-capability 10 Hz receiver updates its position information up to 10 times more frequently than the garden-variety GPS sensors used in many mobile devices. GLO works seamlessly with a variety of apps, including Garmin Pilot™, to turn your Apple

iPad® or other Apple®- or Android™-based mobile device into a true go-anywhere moving map navigator. In fact, your GLO even comes with a 6-month free trial of our Garmin Pilot™ app to make your choice even simpler.

Featuring easy BLUETOOTH® connectivity, the GLO pairs wirelessly with up to four compatible devices simultaneously. Just set GLO within range of your mobile device, and in moments you'll be receiving GLO's enhanced position data. With up to 13 hours of battery life, your GLO can go a long, long way between recharges. And even then, charging your GLO between uses is easy with the included USB cable or optional 12/24 volt cigarette lighter adapter. For optimum reception, an optional friction mount is available to keep your GLO safely positioned atop your aircraft's panel – in full view of all available satellites, both foreign and domestic. Garmin GLO: It's all about bringing you the best of both worlds in satellite-based portable navigation.

### SPECIFICATIONS

<b>Receiver</b>	WAAS-enabled GPS plus GLONASS
<b>Update rate</b>	10 Hz
<b>Accuracy</b>	+/- 3 meters
<b>Battery life</b>	Up to 13 hours
<b>Size</b>	0.70"W x 1.65"H x 3.04"D
<b>Weight</b>	2.12 oz (60.1 g)



## MANAGE YOUR DATABASE SUBSCRIPTIONS, LOGBOOKS AND MORE WITH FLYGARMIN.COM

Your Garmin GPS comes complete with an extensive aviation database. It's the mainstay of your unit's moving map navigation capabilities. In addition, other databases found on select Garmin portables include Garmin FliteCharts®, SafeTaxi®, Airport Directory, plus terrain alerting, towers/obstacles databases and much more.

Over time, as airport and airspace information changes, your databases will require updating. Fortunately, Garmin makes the process easy. Just create an account on flyGarmin.com and purchase your databases. Your device will automatically update when it connects to your Wi-Fi® network.

As an added incentive, Garmin's bundled pricing program for the aera® series navigators offers multi-database annual updates at a cost of up to 50% less than data sets purchased individually. From the moving-map navigation data, obstacles and terrain databases to graphical FlightCharts®, SafeTaxi® and AOPA Directory information, Garmin's new portable update packages make it easier and more affordable to keep all your aviation databases up to date. Spending less while getting more: That's what Garmin value is all about.





## FLY WITH WEATHER, TRAFFIC AND GPS WHILE WATCHING YOUR ATTITUDE

The GDL® 52 portable receiver is the ideal 1-box, dual-network solution for your flying. Now, with this compact antenna/receiver in your aircraft, you have access to a whole new level of “glass cockpit” type flight information. Providing an easy-to-use and totally portable aviation satellite link, the GDL 52 combines SiriusXM® Aviation service coverage — accessible from ground or air — with the subscription-free weather and traffic features of an ADS-B “In” datalink<sup>1</sup>. Together, these two network link technologies bring a world of safety-enhancing features, plus access to more than 150 channels of digital-quality music, news, sports and other entertainment programming<sup>2</sup> directly to your cockpit.

Continuous SiriusXM satellite updates — accessible by ground and air — help you make better, more timely flight decisions. The SiriusXM network’s powerful satellites deliver seamless coverage across the continental United States and its coastal regions, as well as southern Canada. Choose from available SiriusXM Aviation packages that provide METAR data and animated NEXRAD imagery, plus current reports on precipitation, lightning, winds aloft, echo tops, turbulence, freezing levels, TFRs and more.

Using the Garmin Pilot™ app, you can view all this data on your Apple iPad® or other compatible Apple® or Android™ devices<sup>3</sup>. And you can even split the display on your iPad screen to show traffic and weather overlaid

on the moving map, while monitoring your backup attitude on synthetic vision (SVX). It’s like having a virtual flight deck you can pack in your flight bag. Similarly, if you own an aera® 660/760 or 796/795 series portable, the GDL’s weather and traffic uplinks are also compatible with these products, and it will provide Garmin SVX™ synthetic vision and attitude command bar functionality as well.

On the audio entertainment side, you can simply sync a compatible headset enabled with BLUETOOTH® technology with your GDL 52 to wirelessly access an industry-leading digital playlist with audio-entertainment channels tailored to your tastes and interests. If you prefer, you can also opt to hardwire the GDL 52 through your compatible audio panel (or use the wireless connectivity of Garmin Connex®) for routing through the cabin headsets. A 3.5 mm audio jack positioned on the side of your GDL 52 makes it easy to provide audio out to an auxiliary source or audio panel in your aircraft.

You can gain addition awareness options with the GDL 52, including continuously broadcasts in the U.S. of ADS-B weather on the 978 MHz universal access transceiver frequency, so you can access NEXRAD imagery, METARs, TAFs, winds and temperatures aloft, PIREPs, NOTAMs and more<sup>4</sup>. Along with this, you can also receive ADS-B traffic position

reports (and threat-level symbology) to help you see and avoid converging targets in busy airspace. Spoken audio alerts call out potential flight path conflicts ("Traffic, traffic.") to get you looking right away. Meanwhile, on your screen, our patented TargetTrend™ relative motion display<sup>5</sup> offers a faster, more intuitive way of judging target trajectories and closure rates in relation to your flight path. As an added safety feature, Garmin TerminalTraffic™ technology supports the display of ADS-B equipped surface targets on the map screen to help you keep track of other aircraft or ground vehicles that may be moving in your vicinity on the airport.

The GDL 52 is by far one of the simplest and smartest ways to gain the benefits of ADS-B technology. It's a dual-link system, so it can receive on both ADS-B frequencies (978 MHz and 1090 MHz) authorized for ADS-B operations in the U.S. However, for best traffic uplink results, your aircraft needs to be a "participant" in the ADS-B system and have an approved ADS-B "Out" system (such as a 1090 MHz extended squitter transponder) on board. The GDL 52 does not provide this "Out" function, but it can serve as an affordable "In" receiver to access the benefits of ADS-B weather and traffic data, subscription-free.

Of course, depending on your needs, you can also consider the compact GDL® 51 SiriusXM receiver, which lets you access continuous aviation weather information, in-flight entertainment programming, and other GPS, speed and altitude features of the GDL 52, but without ADS-B "In" access. Or you may consider the GDL® 50, which provides ADS-B "In" and GPS, speed and altitude data, without SiriusXM access or subscriptions. Whichever model in the GDL 52 series you choose, you'll always get a versatile datalink solution with a wide array of additional capabilities to help you increase your situational awareness and enjoy your flying more.

## SPECIFICATIONS

<b>Operating temp</b>	-20°C to +60°C (-4°F to 140°F)
<b>Operating altitude</b>	To 55,000 ft
<b>Power input</b>	10 to 32 VDC; 3.5 W max
<b>Battery type</b>	Lithium-ion rechargeable (built-in)
<b>Battery life</b>	Up to 5 hours with GDL 52 Up to 7 hours with GDL 51 Up to 8 hours with GDL 50
<b>Unit Size</b>	4.9" W x 1.3"H x 3.4"D
<b>Weight</b>	0.75 lbs (0.34 kg)

<sup>1</sup>The GDL 52 is a noncertified receive-only product; it does not provide ADS-B

"Out" capability to satisfy FAA mandate requirements

<sup>2</sup>SiriusXM subscription required (sold separately); see [SiriusXM.com/aviation](http://SiriusXM.com/aviation)

<sup>3</sup>See Garmin website or dealer for our growing list of compatible devices

<sup>4</sup>Not all FIS-B weather products may be available on all Garmin displays;

please check your Pilot's Guide for the specifics on your product

<sup>5</sup>Both the audible traffic alerting feature and TargetTrend require compatible displays; please check your Pilot's Guide for specific capabilities available on your display







## Flight Plan

- Data Source: Windy
- KAVL Asheville Rgnl 283°M
  - SUG Sugarloaf Mountain 247°M
  - BZM Barretts Mountain 068°M
  - YECCU Intersection 061°M
  - HAKDA 061°M

### Summary

#### Planned

Aircraft N39633

Initial Fuel 48.0GAL

PERF Config 65%

Cruise TAS 131kt

Cruise Burn Rate 7.5GAL/Hr

DIS 230.7NM

REQ Fuel 13.9GAL

ETE: 14:45 32kt Tailwind (Internet)

LDG: 22:00 EDT

Altitude 5500FT

Departure Time Mar 14 12:15 EDT

Highest Point 3976FT MSL

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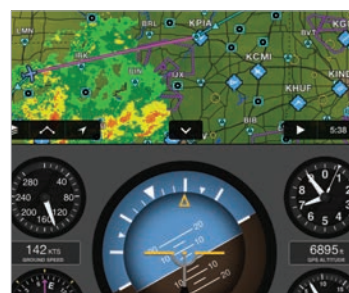
## PORTABILITY MEETS CONNECTIVITY WITH GARMIN CONNEXT®

Whether it's a datalink that brings weather and traffic information from a nationwide ADS-B network or a localized BLUETOOTH® wireless connection between individual devices, wireless technology is revolutionizing how pilots use and connect with their portable devices in the cockpit. Garmin's flight data connection services (known collectively as Garmin Connex) provide the means to wirelessly link people, devices and information – on the ground and in the air.

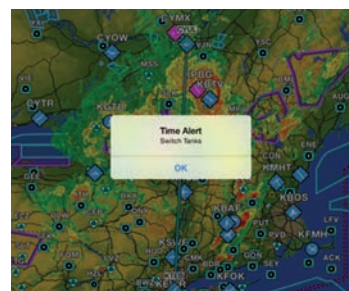
For example, you can use Connex – via one of the Garmin Flight Stream series of cockpit-mounted transceivers – to stream information in real time between your Apple iPad® (or other compatible mobile device) and your avionics. Using our Garmin Pilot™ app, it's easy to preload flight plan data onto your tablet or smart device, whenever and wherever it's convenient. Then, once you're ready to go to the airport, use Connex to wirelessly upload the data – waypoints, airway routings and all – into your plane's compatible avionics during preflight. It's fast. It's easy. It's seamless. And, even better, keeping flight plans in sync between your device and your avionics is a cinch: You enter the data on one device, and with a tap or two, your entries are automatically transferred to the other. So there's no duplication of effort on your part when it comes to keeping everything in sync. Moreover, by streaming data from your avionics to your iPad, you can also integrate the tablet's map and flight displays with graphical weather, traffic, GPS position reference, and backup attitude reference<sup>1</sup> and 3-D synthetic vision displays – virtually turning your mobile device into a touchscreen flight display.

As you can see, today's aviation world is becoming a far more interactive, information-driven environment than ever before. Which is why you'll be seeing more and more Garmin portable products with Connex capability built right in – allowing wireless access, control and sharing of information between multiple devices.

In so many ways, both large and small, the links made possible by Garmin Connex are already redefining how pilots view, control and access all their electronic connections in the cockpit.



In addition to ADS-B weather and traffic, you can also view 3-D synthetic vision and backup attitude reference<sup>1</sup> provided by the GDL® 39 3D portable ADS-B receiver.



Using the Garmin Pilot app on your mobile device, you can link and view text messages, calendar notifications and other alerts on your D2™ series pilot watch.

<sup>1</sup>Not intended to be used as a source of attitude information for flight in instrument meteorological conditions and should not be used under these conditions







## TOTAL SUPPORT AT YOUR FINGERTIPS

Pilots are attracted to our GPS portables for any number of valid reasons — innovative designs. Quality construction. Useful features. Smart technology. Compact size. Value pricing. Simple operation.

But, in the end, it's the total support we put behind every product in our lineup that turns first-time Garmin buyers into loyal, long-term Garmin customers.

We want you to have a great user experience with any and every Garmin product you select.

- That's why every Garmin product is warranted to be free from defects in materials or workmanship for one full year from your date of purchase.
- That's why you'll find more than 700 authorized service centers standing by to support our aviation customers in virtually every corner of the globe.
- And that's why Garmin attracts and hires some of the industry's brightest technical minds to serve in our factory support positions. They're also pilots who speak aviation. And their troubleshooting expertise is available by phone or online — whenever you have a question or service issue that demands the right answer, right now!

No other manufacturer does more to put total navigation confidence at your fingertips.





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