The GPS 500 from Garmin gives pilots big-picture situational awareness and a host of interface capabilities, all in a single box. Following the lead of the popular GNS 530 — minus the nav and comm features — the 500 is a WAAS-upgradable GPS and color moving map. Brilliant colors on a high-resolution, five-inch display make map and flight data easy to interpret.

Designed to interface with additional data systems, the GPS 500 can give pilots vital approach information and weather and traffic data in relation to their position. The GPS 500 includes Fault Detection and Exclusion (FDE) software, a requirement for Oceanic Approval. Coupled with the unit's large, color moving map display, this MFD-like capability puts pilot-critical information right where it's needed.

View your position in real time on a sectional-like basemap with detailed Jeppesen® flight data. The built-in basemap shows cities, highways, railroads, rivers, lakes and coastlines. Different colors separate land, terminal areas, route and approach information so you can interpret data at a glance. This unit's huge Jeppesen database, which can be updated with front-loading data cards, contains all airports, VORs, NDBs, intersections, FSS, approach, SIDs/STARs and SUA information.

The GPS 500 is one smart box that's simple to operate. Thanks to intuitive software and logical page design and knob layout, this unit makes so much information so easy to use. Its user-configurable display simplifies access to massive amounts of pilot-specific data.

For the finest in situational awareness and a broad range of interface capabilities, look to the GPS 500.

GPS 500 specifications

Jeppesen database

Coverage:	Americas, International or Worldwide
Airports:	Identifier, city/state, country, facility name, lat/long, elevation, fuel service, control, approach information
VORs:	Identifier, city/state, country, facility name, lat/long, frequency, co-located DME/TACAN, magnetic variation, weather broadcast
NDBs:	Identifier, city/state, country, facility name, lat/long, frequency, weather broadcast
Intersections:	Identifier, country, lat/long, nearest VOR

Frequencies:	Approach, arrival, control area, departure, Class B, Class C, TMA, TRSA—with sector, altitude and text usage info; also, ASOS, ATIS, AWOS, center, clearance delivery, ground, pre-taxi, tower, unicom, localizer and ILS
Runways:	Designation, length, width, surface, lighting, pilot-controlled lighting freq.
FSS:	Identifier, reference VOR, freq., usage
ARTCC:	Identifier, freq., usage
MSA:	Minimum safe altitude along and in proximity to active flight plan

GPS 500 specifications

Approaches: Non-precision and precision approaches throughout the database coverage

SIDs/STARs: Contains all pilot-nav SIDs and STARs

Airspaces: Class B and C with sectors, International CTA and TMA with sectors; all special-use airspace, including MOA's, prohibited and restricted areas—with controlling agency and airport

GPS performance

Receiver: PhaseTrac12™ twelve parallel channel receiver, simultaneously tracks and uses up to 12 satellites

Acquisition time: 12 seconds (warm), 45 seconds (cold)

Update rate: Once per second, continuous

Accuracy: Position—15 meters (49 feet) RMS velocity—0.1 knot RMS steady state

Dynamics: Velocity (max)—999 knots Acceleration (max)—6 g

Nav features: Pilot-defined course selection and waypoint hold, closest point of flight plan, departure and arrival frequencies, approach navigation using published approach procedures stored on NavData card, terminal navigation using SIDs/STARs from NavData card

Planning features: True airspeed, density altitude, winds aloft, RAIM availability, sunrise/sunset times, trip and fuel planning, vertical navigation (VNAV)

Interfaces: ARINC 429, aviation RS-232, CDI/HSI, RMI (digital: clock/data); superflag out, altitude (serial: Icarus, Shadin-Rosetta, encoded Gillham/Greycode), fuel sensor, fuel/air data, BFG WX 500 StormScope,™ BFG SKY 497 SkyWatch™ and Ryan 9900B TCAD

Map datums: 124

Safety feautures

Emergency search: 9 nearest airports, VORs, NDBs, intersections, or user waypoints; 5 nearest FSS and ARTCC frequencies

Alarms: Arrival timers; airspace alarms at 10 minutes, 2 nm and inside airspace

User customization

Waypoints: 1000 user-defined

Flight plans: 20 reversible; up to 31 waypoints each

Certifications

GPS: TSO C129a, Class A1 (en route, terminal and approach) Oceanic Approval, and Fault Detection and Exclusion (FDE)

Physical specifications

Unit size: Width = 6.25" Height = 4.60" Depth = 11.00" behind panel, with connectors

Unit weight: 6.8 pounds installed

Display: Color LCD

Power: 11–33 VDC

Data storage: Separate internal battery protects stored data for up to five years

Environmental

Temperature: –20°C to +55°C (operating range) –20°C to +70°C (short-term operation)

Humidity: 95% non-condensing

Altitude range: –1,500 ft to 50,000 ft

Components

Standard package: GPS 500 and NavData card GPS antenna Installation rack and connectors Pilot's guide Quick reference guide Database subscription packet

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