FlightMax *Entegna* Integrated Flight Deck





HightMax Entegna Integrated Flight Deck



The FlightMax Entegra primary flight display (PFD) and multi-function display (MFD) are designed to provide pilots with all the information needed to manage the aircraft and safely determine routes, speeds, as well as proximity to adverse weather conditions, terrain, obstacles, and other aircraft.

With FlightMax Entegra, Avidyne brings affordable, state-of-the-art integrated display capability to the business and general aviation flight deck.

Breakthrough Technology

Virtually all new air-transport and high-end business jet aircraft are now delivered with integrated flight deck systems because of the enhanced safety, capability, and reliability of these systems.

Until now, these advanced integrated flight deck systems weren't available for light general aviation aircraft due to their cost, complexity, size, and weight.

FlightMax *Entegra* is a revolutionary advancement in flight deck systems, providing the safety, capability, and reliability benefits of air transport and bizjet flight decks, at cost and weight targets required for general aviation aircraft.

The Future is Now

Featuring large-format, flat panel liquid-crystal displays integrating virtually all instruments and gauges from today's panels, Avidyne's FlightMax *Entegra* dramatically increases situational awareness and reduces pilot workload, while also saving weight and space.

FlightMax *Entegra* provides you with the highest level of flight instrument integration available for general aviation aircraft, and gives you a new level of situational awareness, safety, and reliability. All at incredible savings over what you would expect to pay for a typical EFIS system.

Completing the Picture

FlightMax *Entegra* presents standard flight instrumentation including attitude direction indicator (EADI), horizontal situation indicator (EHSI), altitude, airspeed, vertical speed, moving map, weather, terrain, and traffic on large 10.4-inch diagonal, high-resolution, sunlight-readable full color displays, in easy-to-read formats.

The *Entegra* PFD conveys traditional primary flight instrumentation as well as a pilot-selectable moving map presentation of flight plan data and an RMI pointer, all within the primary field of view, reducing pilot workload. The versatile FlightMax EX5000 MFD displays navigation data, built-in datalink weather, lightning, traffic, obstacles, and terrain with an intuitive user interface.

Catch the Wave

The fully-integrated design of FlightMax *Entegra* makes it ideal for high-performance singles, piston twins, turboprops, and light jets. Several original equipment manufacturers (OEMs) are integrating FlightMax *Entegra* into their new production aircraft, setting off a wave of integrated flight deck technology adoption not seen since the migration of EFIS from air transport to business jets.

Entering the second century of aviation, integrated flight decks are the standard for new GA aircraft, and FlightMax *Entegra* is leading way.



FlightMax Entegra is available in horizontal and vertical display orientations for added flexibility.



FlightMax Entegra's fully-integrated instrumentation and built-in datalink provide light general aviation with it's first integrated flight deck.



FlightMax *Entegra* is designed for general aviation aircraft of all shapes and sizes.

FlightMax Entegra Primary Flight Display with Integrated ADAHRS

The PFD Advantage

The advanced technology of the FlightMax *Entegra* Primary Flight Display (PFD) provides you with the highest level of flight instrument integration available for general aviation aircraft.

The fully-integrated *Entegra* PFD puts your attitude, heading, airspeed, altitude and vertical speed instruments onto a single display, reducing workload and improving your scan.

Easy-to-Fly Trend Indicators

The *Entegra* PFD provides 6-second trend indicators for airspeed, altitude and heading. Trend indicators, typically found on air transport and high-end corporate jets, allow you to fly with higher precision and reduced workload when changing or maintaining critical airspeeds or altitudes.

Integrated EHSI

The electronic horizontal situation indicator (EHSI) puts advanced navigation display capability in your primary field of view with all of the capabilities of sophisticated EFIS systems. Fully integrated with your VLOC/GPS, FlightMax *Entegra* provides synchronized switching as you transition from the en route phase to the approach phase of your flight. When an instrument approach is selected, lateral and vertical guidance indications are presented on the attitude display for increased precision and reduced scanning.

The EHSI can be viewed in standard 360-degree compass rose, or in a 180-degree forward view, with selectable bearing pointer and flight-plan moving map display.

Integrated Autopilot Functions

The FlightMax Entegra PFD may be coupled with the autopilot for altitude preselect, vertical speed select and heading select modes without the need for external controllers. Selection bugs and digital readouts for each of these parameters are provided for concise operation.

Full-Time Wind Vector

An integrated air data computer provides you with a full-time instantaneous wind vector, taking the guesswork out of finding the right altitude to optimize your flight time. It is equally valuable as you correct for wind while entering the pattern or flying an instrument approach.

Simple Controls

The straight-forward user interface makes flying the *Entegra* a breeze. Human-factors studies and flight test experience suggest less is more in terms of PFD modes, and we've kept it simple, yet elegant. *Entegra* provides one-button access to frequent pilot settings such as BARO and altitude/ vertical speed/ heading bugs. Nav sources are push-button selectable for the EHSI needle, the bearing pointer, and the flight-plan moving map.

The FlightMax *Entegra* PFD was designed to have a learning curve of less than five minutes. It's that easy.

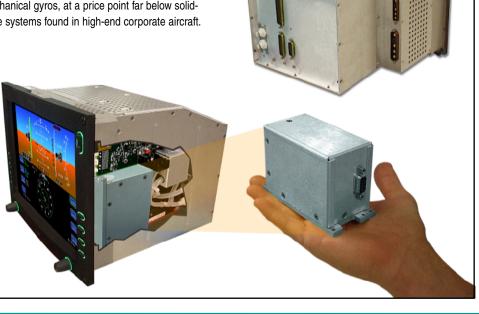


Solid-State ADAHRS - The Enabling Technology of FlightMax Entegra

At the heart of the FlightMax *Entegra* PFD is Avidyne's fully-integrated, solid-state Air Data/ Attitude and Heading Reference System (ADAHRS).

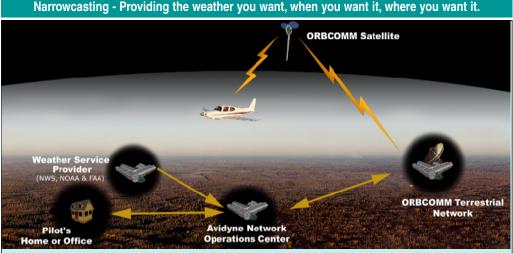
The compact, lightweight, ADAHRS system uses a 3-axis solid state gyro and accelerometer system combined with a magnetometer to replace the traditional vertical and directional gyros.

Avidyne's state-of-the-art ADAHRS provides Roll, Pitch, and Heading data with reliability far exceeding mechanical gyros, at a price point far below solidstate systems found in high-end corporate aircraft. Connected to the pitot-static system, *Entegra's* integrated air data computer provides airspeed, altitude, vertical speed, and outside air temperature (OAT), and continually updates the winds aloft and true airspeed (TAS) indications on the PFD.



FlightMax EX5000 Multi-Function Display with Integrated Datalink





With Avidyne's innovative "Narrowcast" datalink technology (Patent pending), once you set your preferences, the system does the rest.

Your GPS flightplan tells the datalink system where you are and where you are going, and Avidyne's FlightMax Datalink Weather Service automatically sends the NEXRAD and METAR data you need, based on your preferences, so you get the weather you *want*.

With the FlightMax EX5000's built-in datalink, you get valuable and timely weather information displayed on your moving map without the need to switch pages or to manually make requests and wait for data, so you get weather *when* you want it.

The ORBCOMM satellite networkprovides coverage across the entire continental United States with no gaps and at all altitudes, even when on the ground. And unlike terrestrial-based broadcast systems, there's no need to wait until you're at cruising altitude to start receiving weather, so you get weather *where* you want it.

NEXRAD images and graphical METARs for the area along your route of flight are updated and displayed on your moving map without the need for continual pilot interaction.

Fully-translated plain-English METARs provide additional detail of weather at your destination and at reporting airports all along the way. Graphical depictions of AIRMETs and SIGMETs, as well as TFRs, are also displayed for the most complete picture available.

With the FlightMax EX5000 and FlightMax Datalink Weather Service, you get the weather you want, when you want it, and where you want it.

Integrated Datalink Sets the Standard

The FlightMax EX5000 is a revolutionary advancement in multi-function displays. With its built-in datalink capability, smoothly-contoured NEXRAD weather, graphical METARs, and graphical AIRMET/SIGMET data are seamlessly integrated with lightning, traffic, obstacles, and terrain on your flight plan moving map.

Ultra-Bright, High-Resolution Display

The FlightMax EX5000 features the highest resolution and the brightest, most versatile big-screen moving map available in general aviation. It's incredibly wide viewing angle and brilliant color capability provide clear and concise navigation information over an exceptional color-contoured terrain and water base map.

The Best Map Available

All special-use and class airspaces are color-keyed for added clarity, and can be displayed at the same time as your NEXRAD weather data for a more complete picture. Having the complete picture on your map display gives you the ability to avoid weather and stay clear of restricted airspaces, providing an added measure of safety, and saving you time and fuel. Comprehensive Jeppesen NavData[™] and an expansive obstacle database provide you with an unparalleled view of your flight environment.

Full overlay capability allows you to add or remove any available sensor data, with 180-degree forward view and 360-degree center view maps.

Curved Paths

The FlightMax EX5000's large display shows curved flight path segments such as DME arcs, holding patterns and procedure turns, overlaid with traffic, terrain, weather, airports and runway diagrams. The EX5000 takes the guess work out of shooting instrument approaches.

The Easiest To Use

The FlightMax EX5000's user interface dramatically improves your ability to access and display critical flight data. It's simple and consistent operation allows you to select and display what you need on a single easy-tointerpret integrated moving map.

With the FlightMax EX5000's "map-centric" operation, you can display your moving map with datalink weather. And special-use airspace. And traffic. And obstacles. And terrain. And lightning. Without ever leaving the map page.

FlightMax EX5000 is the only large-format display that provides the *complete* picture and it's the easiest to use.



Trip Summary at a Glance

The Trip page provides complete information about your route of flight including a list of all remaining waypoints in the active flightplan, with distances and times for each leg. Graphical METARs are displayed for the reporting station nearest each waypoint in the flight plan. Graphical METAR flags are color-coded for quick determination of the weather at each reporting point. Plus, FlightMax translates the METAR text to plain English for easy interpretation. With the optional EMax Engine Indication System, the trip page also shows fuel remaining at each waypoint.



EMax Engine Indication System

The EMax Engine Indication System option for the FlightMax EX5000 provides a handy graphical fuel totalizer, a lean assist mode, and a percent power display, which take the guess work out of fuel and power management. EMax monitors fuel flow and computes nautical miles per gallon, fuel remaining, fuel to waypoint, and fuel to destination. Temperatures, pressures, RPM, fuel flow, OAT, and electrical bus voltages are also monitored and displayed. EMax provides the most intuitive engine performance monitoring and analysis capability available.



Advanced Terrain Mapping

The FlightMax EX5000 has a complete terrain and water base map, as well as a North American database containing towers and other obstacles greater than 200' AGL, providing unsurpassed depiction of terrain hazards. Color-contoured terrain is displayed on the base map and obstacles can be displayed with MSL altitude labels. Avidyne's exclusive terrain scale shows the altitude of the highest terrain and obstacle in the displayed area.

The "nearest obstacle" feature makes it easy to determine the height and proximity of nearby towers as you descend into any unfamiliar areas.



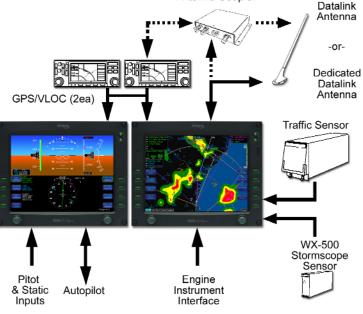
The Big Picture

The FlightMax EX5000's largeformat high-resolution display allows you to easily view your flightplan, along with Avidyne's exclusive smooth-contour NEXRAD weather imagery. With 19 ranges to choose from, you can see well ahead of your current position, and you have the ability to zoom in for airport runway detail at close ranges.

Graphical METARS for all reporting airports are also available, which can help you in determining an alternate airport in the event of inclement weather or an emergency situation.

Specifications

SO COMPLIANCE: TSO-C2d Airspeed Instruments	SIZE	Height	Width	Depth (Behind Panel)	Weight			
TSO-C3d Turn & Slip Instruments								
TSO-C4c Bank & Pitch Instruments	PFD	8.5"	10.7"	9.4"	12.0 lbs.			
TSO-C6d Magnetic Direction Instruments	(Horizontal)	21.6cm	27.2cm	23.9cm	5.45kgm			
TSO-C8d Vertical Velocity Instruments	EX5000 MFD	8.5"	10.7"	4.62"	6.75 lbs.			
TSO-C10b Altimeter, Pressure Actuated	(Horizontal)	21.6cm	27.2cm	11.7cm	3.07kgm			
TSO-C37d VHF Radio Communications		44.0"	0.5"	0.0"	40.0 //			
Transmitting Equipment	PFD (Vertical)	11.0" 27.9cm	8.5" 21.6cm	9.6" 24.4cm	12.0 lbs. 5.45kgm			
TSO-C38d VHF Radio Communications	(venical)	27.9011	21.0011	24.4611	5.45KgIII			
Receiving Equipment	EX5000 MFD	11.0"	8.5"	4.62"	6.75 lbs.			
TSO-C43c Temperature Instruments	(Vertical)	27.9cm	21.6cm	11.7cm	3.07kgm			
TSO-C44b Fuel Flow Meters								
TSO-C45a Manifold Absolute Pressure Instruments								
TSO-C47 Pressure Instruments - Fuel, Oil, Hydraulic	VECTOR-GRAM Americas Je	PHIC MOVING						
TSO-C49b Electric Tachometer	International	Jeppesen N	avData - Opti	onal				
TSO C106 Air Data Computer	(Portable Da	taloader Opti	ional)					
TSO C110a Airborne Passive Thunderstorm								
Detection	TERRAIN	und Torroin I	Base Map - B					
TSO C113 Airborne Multipurpose Electronic			Базе мар - Б Obstacle Da					
Display		nal Terrain Da		ia				
TSO C147 Traffic Advisory System (TAS)	momato	iai ronain bi	ana					
, , , , , , , , , , , , , , , , , , ,	AUTOPILOT IN	TERFACE						
ISPLAY:	S-Tec 55X							
10.4" Diagonal, Color Active-Matrix LCD Sunlight readable	Bendix/King	KAP 140						
800x600 pixels, 65,536 colors	GPS/FMS/VLO	C INTERFAC	E					
YSTEM POWER:	ARINC 429	GAMA Graph	nics					
6.0 A @ 28VDC								
	LIGHTNING IN		0000					
PERATING ALTITUDE:	Goodrich W.	X 500 Storms	scope					
Up to 25,000 ft. (cabin pressure)	TRAFFIC INTE	REACES						
PERATING TEMPERATURE:		ywatch/Skyw	atch HP					
-20C to +55C		9900B/9900E						
+70C Short term	Honeywell K							
ATALINK	WARRANTY:							
FlightMax Datalink Weather Service	-2 Years par							
uses internal datalink transceiver	-Extended w	arranty servic	e available					
						Optional		
						Antenna	Coupler	
						~		2



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