

EVOLUTION FLIGHT DISPLAY SYSTEM

EVOLUTION 2000



- MFD redundancy backs up all critical sensors and systems
- Advanced EFIS six-pack replacement
- Photo-quality moving maps and crisp, clear text
- Geo-referenced charts and airport diagrams
- Terrain, traffic, maps and weather
- Optional Evolution Synthetic Vision
- Works with nearly every GPS or nav radio
- Broadest autopilot/flight director support
- Easiest installation
- Lightest weight
- Award-winning customer service
- No-nonsense warranty
- Best value

Evolution 2000 — MFD Versatility With Full PFD Backup

The Evolution™ 2000 combines the EFD1000 Pro PFD (Primary Flight Display) and the EFD1000 MFD (Multi-function Flight Display) to provide a system with MFD versatility as well as the safety and confidence of full PFD instrument redundancy. This Evolution Flight Display pair is an unbeatable duo that provides everything you need in an easy-to-use, full-featured glass cockpit for your GA aircraft. Aspen makes the system affordable with patented retrofit technology and superior compatibility for substantially lower installation costs and total cost of ownership.

The Pro PFD provides professional-grade EFIS primary flight instruments, with a full-featured electronic HSI with moving map. The 1000 MFD adds photo-quality moving maps, terrain awareness, standard geo-referenced charts and airport diagrams, and optional Evolution Hazard Awareness including traffic displays, WX500 Stormscope® display, and the full suite of XM WX® aviation weather products.

Improved Safety Through Redundancy

The 1000 MFD incorporates the exact same hardware and software as the PFD, so these units give you two of *everything*, not just two displays: dual independent AHRS, Air Data Computers, compass systems, HSIs, and more.

With Aspen's exclusive PFD redundancy, if your PFD fails you simply press the 1000 MFD's REV button and it becomes the PFD — converting into an identical backup right in your primary instrument scan. This identical PFD backup means less stress and potential confusion in a pressure situation. *No other GA glass cockpit system gives you this level of redundancy and confidence at any price!*

The highly flexible Evolution Flight Display System is fully upgradable, so you can add comprehensive hazard awareness capabilities, Evolution Synthetic Vision, and other new features via easy-to-intall software upgrades.

Evolution 2000 — exceptional versatility, unmatched redundancy.

EVOLUTION FLIGHT DISPLAY SYSTEM

EVOLUTION 2000

1000 Pro PFD



Display showing optional Evolution Synthetic Vision.

1000 MFD



EFD1000 PRO PFD FEATURES:

- Airspeed and altitude tapes
- Altitude alerter (and separate approach minimums alerting)
- Full electronic HSI with dual bearing pointers
- Base map with flight plan legs and waypoints, curved flight paths¹, and nearby nav aids
- Integrates with most GA autopilot and flight director systems
- ARC and 360° views with dual GPS and dual VHF nav support
- Built-in GPS Steering¹
- Display of real-time winds aloft, OAT, TAS, and ground speed¹
- Integral Air Data Computer and Attitude Heading Reference System (ADAHRS)
- Built-in backup battery and emergency GPS
- Optional Evolution Synthetic Vision⁴
- Optional Evolution Hazard Awareness (EHA) upgrade provides traffic and weather displays^{2, 3}
- Brilliant, direct sunlight-readable, 6-inch 760x400 TFT active matrix LCD display (140 pixels/inch)

EFD1000 MFD FEATURES:

- Duplicate sensor set providing full PFD redundancy if PFD fails
- High resolution aviation-style moving maps with hazard awareness overlays
- Customizable screen layouts
- Geo-referenced charts and airport diagrams
- Secondary HSI
- Allows removal of redundant mechanical backup instruments⁵
- Evolution Hazard Awareness (EHA) *Built-in Terrain Awareness system Traffic*²
*WX500 Stormscope® compatibility XM WX® Satellite Weather, with all XM WX aviation weather products*³
- Built-in backup battery and emergency GPS⁶
- Brilliant, direct sunlight-readable, 6-inch 760x400 TFT active matrix LCD display (140 pixels/inch)

¹With compatible GPS navigators

²Requires ARINC 735A compatible traffic system.

³Requires Aspen EWR50 Weather Receiver or equivalent.

⁴See www.aspenavionics.com/availability for product availability dates.

⁵Optional battery backup required

⁶Emergency GPS available with optional upgrade

See www.aspenavionics.com/approvals for the latest list of approved aircraft makes and models and autopilot/flight director systems.

Features and specifications are subject to change without notice.

Full PFD Redundancy

- Dual independent Attitude and Heading Reference Systems (AHRS)

Dual electronic attitude gyros

Dual attitude indicators

Dual magnetic flux gates

Dual gyro compass systems

Dual HSIs

- Dual independent Air Data Computers (ADC)

Dual airspeed indicators

Dual altimeters

Dual VSIs

Dual OAT probes

- Dual independent backup batteries

- Dual independent battery-powered emergency GPS receivers⁶

**Reversion at
a button press**

REV



Add a second Evolution MFD for a total glass cockpit system with more display area and versatility than competing flight displays.

ASPEN AVIONICS®
A NEW WAY TO LOOK AT AVIONICS®

www.aspenavionics.com

EVOLUTION SYNTHETIC VISION



Evolution 2500 showing Evolution Synthetic Vision on center PFD

3-D Situational Awareness Made Flexible and Affordable

Evolution Synthetic Vision (ESV) is an optional expansion to the Evolution Flight Display System. ESV presents a real-time, computer-generated 3D view of terrain, obstacles, and traffic. The synthetic rendering simulates the view from the cockpit on a bright day, so it's especially helpful to provide enhanced situational awareness when flying during conditions of reduced visibility or darkness.

Built-in Terrain Warning System

ESV comes standard with an integrated *Terrain Warning System* that combines terrain and flight path marker coloring, caution and warning text, and an audio warning signal, to alert you when terrain or obstacle collision is imminent.

Unique Flexible Display Layouts

User-configurable screen layouts allow you to specify which PFD and/or MFD screen areas you wish to display synthetic vision. Choose between wide and normal field of view settings to control the level of detail you prefer. And you can choose to display ESV simultaneously on both the PFD and MFD.

Simple, Easy Upgrade

Your Authorized Aspen Avionics Dealer can easily upgrade your Evolution Flight Display installation via each display's front-loading micro SD slot. Pricing for the PFD is \$2995, each MFD is \$795.

Versatile, User-Configurable Layouts

Evolution Synthetic Vision on the Evolution 1000 Pro PFD



Pro PFD full screen, wide field of view



Pro PFD full screen, narrow field of view



Pro PFD — Evolution Synthetic Vision with terrain warning top, terrain view with hazard overlay bottom

Evolution Synthetic Vision Unique Features & Benefits

- Three arc-second terrain data accuracy
- 3-D traffic and obstacles
- Built-in Terrain Warning System
- User-configurable screen layouts
- Wide or narrower field-of-view options
- PFD and MFDs may display synthetic vision simultaneously
- Low-cost upgrade

Evolution Synthetic Vision on the Evolution 1000/500 MFD



MFD Thumbnail Layout — secondary AI and top-down terrain hazards at top; Evolution Synthetic Vision bottom



MFD Split Screen Layout — Evolution Synthetic Vision top, navigation and top-down terrain hazards bottom



MFD Full Screen Layout — Evolution Synthetic Vision, narrow field of view, 3D traffic

In addition to unique-to-Aspen features, ESV also includes all of the familiar Synthetic Vision capabilities pilots have come to expect, including flight path marker symbology and perspective views of traffic, obstacles, airports and runways.

ASPEN AVIONICS™

A NEW WAY TO LOOK AT AVIONICS

www.aspenavionics.com

Terrain, Traffic, and Weather at a glance.



EVOLUTION HAZARD AWARENESS

Integrated Hazard Awareness

Evolution Hazard Awareness (EHA) presents an integrated display of potential flight hazards directly in front of the pilot. EHA is a standard, built-in feature of the Evolution MFDs and is an optional software upgrade on the Pro PFD. EHA enables the display of traffic, datalink weather, and WX500 Stormscope(R) data from compatible sensor systems.

Combining XM WX® Satellite Weather, Stormscope lightning, traffic, and terrain on your primary navigation display and moving maps makes it easy to see and avoid hazards, even in IMC. EHA provides a better, more integrated display for compatible hazard sensors, while the Evolution EWR50 Weather Receiver delivers breakthrough pricing for datalink weather solutions.



Terrain

An internal terrain and obstacle awareness system is built into Aspen's Evolution MFDs.

Traffic

EHA integrates and displays nearby traffic information from compatible traffic sensor systems.

Weather

EHA puts lightning and datalink weather information into your primary field of view.

Breakthrough Pricing

The Evolution EWR50 is the lowest cost certified weather receiver available.

Evolution Hazard Awareness Feature Comparison

	1000 Pro PFD EHA Software Upgrade	MFD Built-in Features
Terrain		◆
Traffic <i>(Requires ARINC 735A compatible traffic system.)</i>	◆	◆
Weather	◆	◆
WX500 Stormscope interface	◆	◆
Datalink Weather <i>(Requires Aspen EWR50 Weather Receiver or equivalent.)</i>	◆	◆
Hi-res NEXRAD radar	◆	◆
Radar coverage map	◆	◆
Precipitation type (at surface)	◆	◆
TFRs		◆
METARs		◆
TAFs		◆
AIRMETs		◆
SIGMETs		◆
Cloud tops		◆
Echo tops		◆
Lightning	◆	◆
Winds aloft (by altitude)		◆

EVOLUTION HAZARD AWARENESS FEATURES:

Weather

WX500 Stormscope®

- Control and display lightning data
- Cell and strike modes
- RS-232 interface

XM WX® Satellite Weather

(Requires Aspen EWR50 Weather Receiver or equivalent.)

- Compatible with Evolution Weather Receiver, and Heads Up Technologies XMD-076/A receivers
- Supports full suite of XM WX Satellite Weather aviation products (display capabilities vary by model)
- Data from single weather receiver can be displayed on up to three Aspen EFD displays

Traffic¹

- Supports traffic systems with standard ARINC 735A outputs, including TIS-capable Mode S transponders
- Enhanced traffic system features and control available on MFD systems (features vary by manufacturer)
- Data from single traffic receiver can be displayed on up to three Aspen EFD displays

Terrain

- Terrain and obstacle awareness display and database built into MFDs

¹See www.aspenavionics.com/availability for product availability dates.

Features and specifications are subject to change without notice.



Evolution Hazard Awareness is available on one, two, and three display Evolution PFD and MFD Installations

Lowest Cost Certified Weather Receiver

Aspen EWR50

Display datalink weather on three displays with one receiver



EVOLUTION EWR50 WEATHER RECEIVER:

RS-232 interface to the 1000 Pro PFD and 500 MFD	Nominal Current:	0.12/ 0.22 amps (28v/14v)
Works with all standard XM WX antennas, including combos	Software:	DO178B Level E
Input voltage: 11-32 vdc	Environmental:	DO160E
Dimensions: 7.8" x 6.5" x 1.35"		
Weight: 1.4 lbs.		



ASPEN AVIONICS™

A NEW WAY TO LOOK AT AVIONICS

www.aspenavionics.com

ASPEN INTEGRATION + WIRELESS COMMUNICATION =
CONNECTED™ PANEL TECHNOLOGY



**CONNECT
YOUR DATA**



**CONNECT
YOUR DEVICES**



**CONNECT
YOUR PANEL**



**CONNECT
YOUR WORLD**



ASPEN  AVIONICS™

A New Way to Look at Avionics™

NETWORK PANEL-MOUNTED INSTRUMENTS WITH HANDHELD SMART DEVICES



CONNECTED™ PANEL TECHNOLOGY

Connected™ is a revolutionary, patent-pending technology that connects your mobile devices to your aircraft's panel-mounted avionics.

Evolution Flight Displays are designed to network with a variety of certified avionics from many manufacturers, making the Evolution system a natural nexus for access to and control of flight data.

A Gateway to Integration

The Connected™ Panel system includes hardware, software and application components that provide two-way wireless communications between portable smart devices and panel-mounted avionics. The power to streamline flight-related activities is enabled via Aspen's Evolution Flight Displays and a blind-mounted Connected Gateway box.

Aspen's Connected™ Pilot software application provides configuration of and access to panel communications. Initially, the Connected™ Pilot app will be available for the Apple iPad via Apple's iTunes Store. Development for Connected™ Panel Enabled apps and products is open to other platforms, such as Android, to meet pilot demand.

A Gateway to Innovation

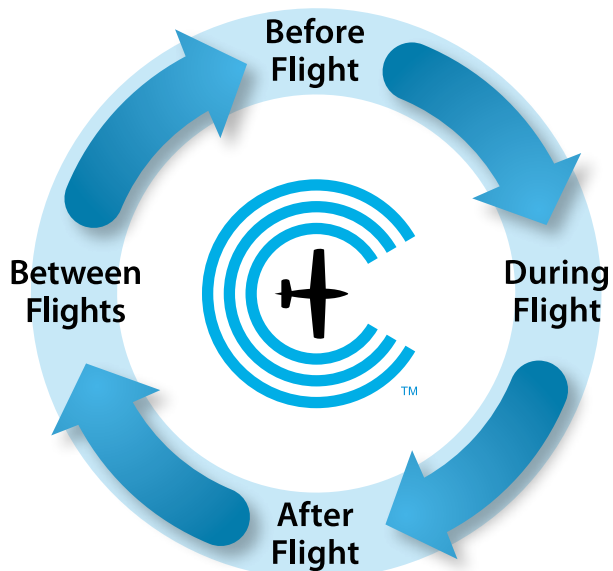
A growing suite of Connected™ Panel Enabled apps from a vibrant community of developers promise to not only make your favorite apps more useful and powerful, but you can anticipate innovation beyond the bounds of any current products. The best uses of Connected technology will be as surprising as they are powerful.

See aspenavionics.com/availability for product availability dates.

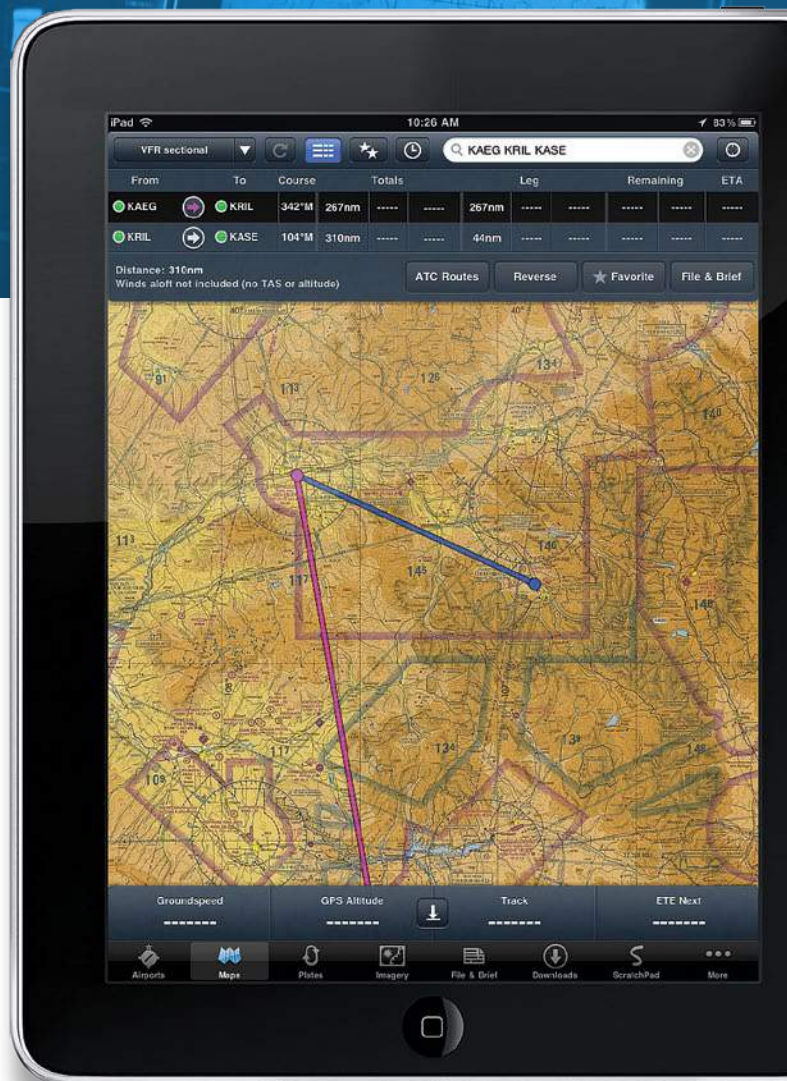
A POWERFUL PLATFORM OPEN TO DEVELOPERS FOR ANY SMART DEVICE

UPLOAD YOUR FLIGHT PLAN,
TUNE YOUR RADIO WITH A TOUCH,
RECORD FLIGHT DATA,
AUTOMATE MAINTENANCE RECORDS...
THE POSSIBILITIES ARE ENDLESS.

Until now, smart devices have been limited — unable to communicate with onboard systems.



Connected™ Panel technology allows you to tie your world together seamlessly into a fully integrated flying experience.



ForeFlight Mobile app shown.



CONNECTED™ PARTNERS

AVCONNECT

FLTPLAN.COM

SEATTLE AVIONICS SOFTWARE

AVIDYNE

FORELIGHT

PARROT

BENDIX/KING BY HONEYWELL

HILTON SOFTWARE LLC

PINNACLE AEROSPACE

BLACKBOX AVIATION SYSTEMS

IFLIGHTPLANNER.COM

PS ENGINEERING INCORPORATED

CORADINE AVIATION SYSTEMS

JEPPESEN

SPORTY'S PILOT SHOP

DIGITAL SECTIONAL

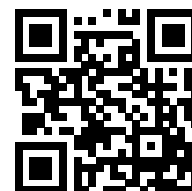
J.P. INSTRUMENTS



**CONNECTED™
PANEL ENABLED**

A vibrant community of partners – inside and outside the aviation industry – are developing applications and products using Connected™ Panel technology.

Visit **connectedpanel.com** for the latest information about Connected™ technology, including links to Connected™ Panel Enabled applications and hardware from launch partners and other developers.



connectedpanel.com

ASPEN AVIONICS™

A New Way to Look at Avionics™

www.aspenavionics.com