

# SMARTDECK<sup>®</sup>

Integrated Flight Controls and Display System



IMAGINE AN AVIONICS SYSTEM SO INTUITIVE AND INTEGRATED THAT IT HELPS THE PILOT FLY **SMARTER**.

SmartDeck® is an integrated flight control and display system that gives pilots unprecedented situational awareness to make flying safer and easier. SmartDeck® was designed with a look toward the future to build a system that will grow with technology and allow for enhancements. This makes the SmartDeck® system

the logical choice, both now and in the future. These visions have been brought to life by a team of dedicated engineers, pilots and safety specialists who have created an integrated, intuitive and sophisticated full cockpit system: The SmartDeck® Integrated Flight Controls & Display System.



**PICTURE PERFECT**

The SmartDeck Synthetic Vision feature helps augment the pilot's situational awareness by providing critical flight details and helpful navigation aids.



**UNMATCHED CLARITY**

The level of detail and planning that has gone into SmartDeck Synthetic Vision is unmatched. Geographic features are intuitive, dynamic, clear and logical.



**OBSTACLES & TERRAIN**

Obstacles are represented as realistic 3D images while SmartDeck's TAWS driven color coding identifies potential CFIT situations in yellow and red.

## THE SYSTEM YOU ASKED FOR IS FINALLY HERE.

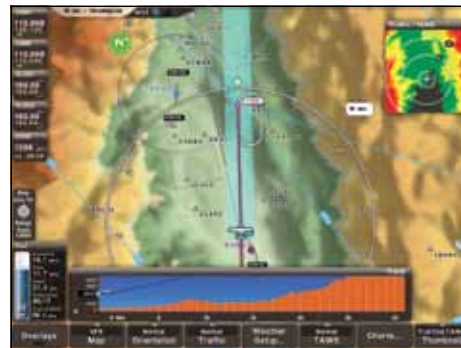
SmartDeck's user interface increases the speed and accuracy of flight management and significantly streamlines the flying process. While other systems may offer similar features, SmartDeck delivers all the information in a clearer and more intuitive manner.

The 3-clicks-or-less philosophy remains faithful throughout the design of the system. From moving map functions to communications to Synthetic Vision, SmartDeck makes flying safer, easier and more enjoyable.



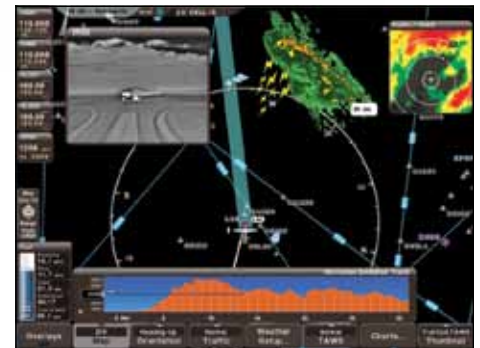
### CHARTS

Paper charts are a thing of the past with the integration of electronic charts in SmartDeck. Every detail of almost any destination is just a click away on your MFD.



### YOU FLY, WE'LL NAVIGATE

With a WAAS capable GPS and a digital autopilot, SmartDeck provides automated lateral and vertical guidance and maintains precise holds - freeing the pilot to focus on primary flight functions.



### SEE THE UNSEEN

Regardless of conditions outside the cockpit, datalink weather and lightning system provide a complete weather picture.

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### FLIGHT PLANNING MODE

A simple push of the flight planning button accesses a worldwide database of airports, nav aids, waypoints and other vital flight planning data. The flight planning page consists of 1) Active Flight Plan, 2) Flight Plan Catalog and 3) Vertical Advisory. Pilots are able to create, edit and copy flight plans through the CCU and load the information directly onto the SmartDeck MFD. Procedures can be inserted for approaches, holds, arrivals and departures. Additionally, the WAAS capabilities of the system enables pilots to easily shoot LPV approaches to non-ILS equipped airports.



### COMMUNICATIONS MODE

The active frequency currently tuned on each comm and nav radio is shown near the top of the COM1, COM2, VLOC1 and VLOC2 radio windows. For the comm radios, the station ID and name are displayed if selected from the database. The nav radios receive the Morse code IDs from the tuned VLOC stations and decodes them into alphanumeric station IDs. An integrated transponder (XPDR) rounds out the communications suite by displaying transponder code, reply symbol and mode of operation. Inputs to any of the communications windows can be made quickly via knob or numeric keypad.



### AUDIO PANEL

The audio panel functions as a selector for the two VHF coms, a dedicated cellular telephone interface, a 6-place stereo intercom with dual independent music inputs and an internal marker beacon receiver. The intercom squelch system eliminates all of the traditional knobs or push buttons. Using digital processing, the system separates voice from airplane noise, making conversations seamless.



### INTEGRATED AUTOPILOT

SmartDeck can integrate a Digital Flight Control System through all phases of flight and includes fully coupled approaches and automatic altitude captures. Once you choose AP, FD, or AP and FD modes, use the other mode select buttons to choose what kind of guidance you want the autopilot to provide.

## SMARTER BY DESIGN - BETTER BY EXPERIENCE.

Throughout the design process, the design team continually tested form and function with active pilots and a team of human factors specialists. The control buttons, display settings and visual cues were all carefully developed as part of an intuitive design philosophy. Human factors testing put pilots in front of the system throughout

the process to ensure the finished product remained consistent to the vision of a smarter, friendlier, more intuitive flight deck. The SmartDeck system presents a wealth of information, without overwhelming the pilot. The SmartDeck cockpit is well organized and considerate of ergonomics as well as economics.



### AIRSPACE DEFINED

Remove the uncertainty of restricted flight zones by populating the MFD with up-to-date airspace information. Updates are easily uploaded through the data card as they are published.



### CUSTOMIZED VIEWS

Preferences for the SmartDeck system are easily controlled on both displays with minimal input. The declutter knob also aids in quickly removing or adding data according to pilot preference.



### MOVING MAP CUE CARDS

Access information about navaids, airports and map symbols using the Crosshair Cursor. It's just another step toward making flying safer and boosting pilot confidence.



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SMARTDECK®



UP DOWN

SPB SKB VS ALT

PDT 03:00 PM

Radios

PALM SPRINGS	Flight Plan
RPSF	
SOCAL	Nearest
L30	
PALM SPRINGS	Timer
THERMAL	
TWENTYNINE PA	IDENT
JULIAN	
PA 7800	Squawk PREV (1200)

18 500

4 5 9 0

CLR

Esterline CMC Electronics

## ESTERLINE CMC ELECTRONICS

Established in 1903, Esterline CMC Electronics designs and produces high-technology electronic products for the commercial and military aviation markets. CMC's focus is on delivering innovative cockpit systems integration and avionics solutions to its customers worldwide. Its principal locations are in Montreal, Quebec; Ottawa, Ontario; and Chicago, Illinois.

### OVERVIEW

- Headquarters: Montreal, Quebec
- Key markets: Commercial aviation and Military aviation
- International sales presence
- Over 1,100 employees

### KEY CAPABILITIES

- Dual civil/military product development (software, hardware), program management, certification and marketing
- System integration from subsystems to prime contracts for design and installation of cockpit suites
- System design and layout, HFE, subcontract management, SIL and ILS
- Extensive network for all support functions including AOG, Field Engineering, R&O, Technical Publications, etc.
- Excellent relationship with Regulatory Authorities around the world

### A TRADITION OF MARKET LEADERSHIP AND INNOVATION

- The company has world leading expertise in providing Part 23 and Part 25 cockpits for both OEM and retrofit programs.
- CMC's breadth of experience extends to cockpit retrofits, new cockpit builds and human factors engineering for air transport, military and fast jets/turboprop trainers, general aviation and business jets (piston, turboprop, jets) and helicopters.
- CMC has successfully performed cockpit upgrades for the C-130 class of military air transport aircraft. CMC's proven Cockpit 9000 modernization solutions comprise best-in-class core elements which support worldwide operation within the latest civil airspace global air traffic management environment.
- CMC's Cockpit 4000 integrated avionics suite provides a cost-effective, advanced military aviator training solution to air forces around the world. This integrated glass cockpit is designed to lower training costs while offering superior training capabilities.

CMC also offers a broad range of innovative avionics products:

**FMS** – The leading choice for classic cockpit modernization retrofits.

**GPS** – The aviation industry's navigation standard.

**EVS** – The number 1 choice of airframe manufacturers and prime contractors.

**EFB** – The number 1 choice of business and commercial air transport aircraft OEMs.

**HUD** – The number 1 choice for turboprop trainers.

**Satcom** – The preferred supplier to air transport and VIP bizliner markets.

**Hybrids** – A leading supplier of microelectronics for military and aerospace applications.

For the latest in Innovative Cockpit and Avionics Solutions, please visit [www.cmcelectronics.ca/smartdeck](http://www.cmcelectronics.ca/smartdeck)

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Over 100 Years  
of Innovation

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