



Primus® Apex  
Integrated Flight Deck

The next generation flight deck for the  
**TWIN OTTER BY VIKING AIR**



Image courtesy of Viking Air Ltd

## The Honeywell Primus Apex Avionics System has been tailored for the single pilot cockpit to enhance safety and operability.

Specifically tailored for the Twin Otter, Honeywell's Primus Apex offers state-of-the-art functionality needed in a modern utility aircraft – including functions previously available only in the most sophisticated business jets.

### Primus Apex Benefits Include:

- Four display system featuring crystal-clear, high-resolution Active Matrix Liquid Crystal Displays and wide viewing capability allowing cross-cockpit scanning



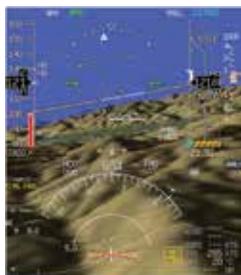
- Two primary flight displays with Honeywell's iPFD format as standard and SmartView™ Synthetic Vision System as an optional upgrade.
  - Two multifunction displays featuring integration of aircraft systems, safety sensors and navigation information to decrease pilot workload and improve safety through enhanced situational awareness
- Increased reliability using advanced design techniques and solid state sensors for improved dispatchability
- Emerging Communication Navigation Surveillance Air Traffic management operational and environmental requirements – compliant with all current worldwide mandates
- A flexible architecture that allows easy integration of hardware and software as new technology comes available



### Display Systems

The primary flight displays come standard with Honeywell's iPFD and support SmartView™ Synthetic Vision – with advanced symbology, including:

- 3-D terrain
- Approach guidance
- Enroute
- Terrain alerting
- Visual runway



The multifunction displays support:

- Interactive Navigation (INAV™) graphical flight planning
  - Digital charts and maps
  - Radio tuning
  - Synoptics
- Phase 2A introduces the addition of a vertical situation display in addition to the existing

### Flight Management System

- Phase 2A introduces the option for a dual FMS installation without any additional hardware required, supporting
  - Comprehensive navigation database
  - Graphical INAV and flight planning
  - Primary and secondary flight plans
    - 100 waypoints per flight plan
    - 1000 stored pilot defined waypoints
    - 3000 stored flight plans
  - Precision and non precision approaches
  - SID/STAR procedures
  - Wide Area Augmentation System (WAAS)
  - Full complement of RNAV approaches
    - RNP
    - LNAV/VNAV
    - LNAV
    - LPV
    - Steep approach and landing
  - Vertical glide path (VGP) mode
  - Vertical navigation (VNAV)
  - Direct-To function
  - Automatic leg transitions
  - Automatic bank angle limit
  - Parallel offset
  - Weather alternate
  - Mass storage module
  - PC flight planning tool

### Phase 2A introduces Automatic Flight Control System (ACFS)

- Autopilot (including automatic pitch trim)
- Yaw damper with turn coordination
- Flight director guidance
- Coupled vertical navigation

## **Additional:**

### **Display Enhancements**

- iPFD primary flight display
- Optional SmartView SVS
- Vertical situation display
- Video display

### **Hazard Avoidance and Detection Systems**

- Traffic/terrain surveillance systems
  - TCAS II ADS-B Out capability
  - Class A Terrain Awareness Warning System (TAWS)
- Weather radar system
- Lightning detection system interface
- XM® weather
- Digital radio altimeter

### **Enhanced Sensor Capabilities**

- WAAS / SBAS capable GPS
- Mode S transponder upgrade to ADS-B Out
- Enhanced AZ-200 air data modules
- Enhanced AH-1000 AHRS

### **Operation and Maintenance**

- Flight data and cockpit voice recorders
- Emergency locator transmitter (ELT)
- Central aircraft maintenance system

### **Future ATM Capabilities**

- ADS-B IN capability
- RNP enhancements
- PM CPDLC

XM is a registered trademark of XM Weather

## **Worldwide customer support**

Honeywell's avionics are based on proven technology providing exceptionally high reliability and simplified maintenance. Our product support services include regularly scheduled maintenance and pilot training courses. When service is needed, our customer engineers and service centers are located around the world to provide efficient, responsive support.

## **Honeywell Aerospace**

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