

PNAV 486

Real-Time Navigation Computer

The PNAV is a real-time navigation computer for use in helicopter or fixed wing aircraft, designed for grid and waypoint surveying in airborne geophysical operations. The PNAV communicates via RS-232 port with any receiver that provides Lat/Lon, X/Y or Range-Range information. Data can be stored on a hard disk or transferred via another RS-232 port. All operations are handled in real time.

MAIN FEATURES:

- REAL-TIME VIEW OF OPERATIONS
- PRE-FLIGHT TRAINING AND PLANNING
- DATA RECORDING OR TRANSFER VIA RS-232
- SEVERAL DIFFERENT COORDINATE SYSTEMS (Lat/Lon, UTM, X/Y, Range-Range)
- AREA GENERATION FROM FILE OR "ON-THE-GO"
- AUTOMATIC SCREEN ROTATION
- AUTOMATIC LINE GENERATION
- AUTOMATIC "TIME AND DISTANCE-TO-GO" CALCULATION
- FLY PATTERNS SELECTION (NORMAL & RACE-TRACK)
- CROSS-TRACK INFORMATION
- ZOOM-IN/OUT AND AUTO-CENTERING
- ALL PARAMETERS CAN BE PRE-DEFINED AND STORED (SURVEY BOUNDARIES, FLIGHT LINES, WAYPOINTS, ELLIPSOIDS ETC.)

CONFIGURATION:

The PNAV consists of three major components: flat panel **Computer Console** for mounting in a rack (optional P101 Portable Computer Console is available, see next page), remote VGA monochrome LCD **Moving Map Display** with keypad for system operations control, and remote **Pilot Indicator** display for track information.



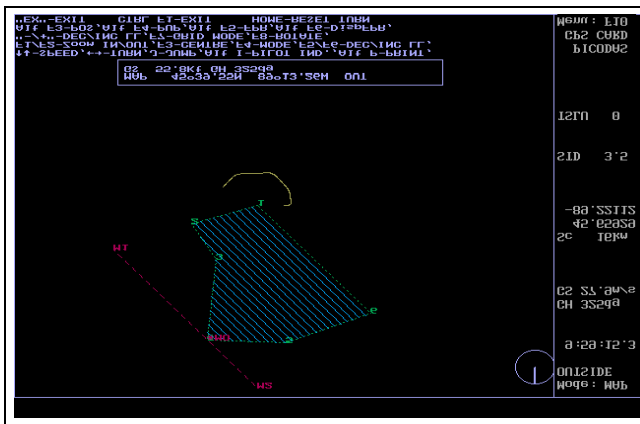
Basic PNAV system consisting of Computer Console that provides data recording and processing and is to be mounted in a rack; remote high resolution monochrome LCD Moving Map Display with keypad for all system controls that provides real-time view of operations and all navigation information; and remote two-line backlit LCD Pilot Indicator display for track information. Compact keyboard on a tray is provided for pre- and post-flight editing and system tests.

SUPPORTED RECEIVERS:

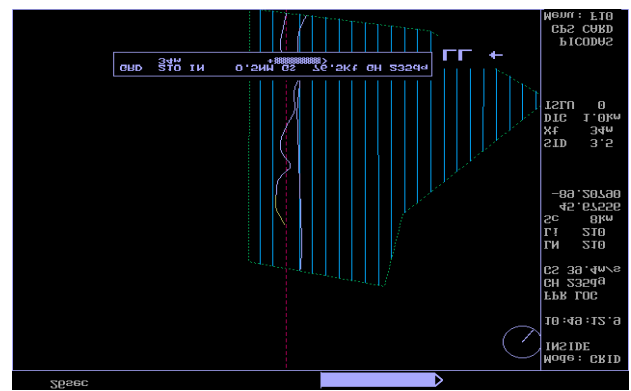
- Trimble TANS GPS receiver
- Ashtech M XII and RANGER GPS receiver
- Magnavox MX 4802 & 4200 GPS receiver
- SEL Globus LN 2000 GPS receiver
- Motorola Eagle VIII GPS receiver
- Motorola Mini-Ranger receiver
- Falcon 484 Range-Range system
- Del Norte 542 and 547 Range-Range systems
- Il Morrow Apollo Loran-C receiver
- Trimble TNL2000 GPS receiver
- Syledis MR3-Aerodata format
- NMEA 0183 data formats, GPGLL, GPGGA, GPGXP and GPRMC packets, as used by Trimble 4000 RL
- Morrow Flybuddy 820 GPS receiver
- Novatel GPS card receiver



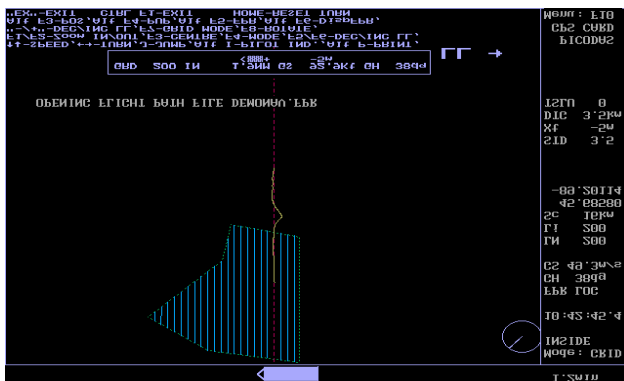
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Survey area in MAP MODE, zoomed-out, displaying the direction and spacing of grid lines, with the aircraft flight path outside the survey area making a turn. The small window above the menu displays the information on the Pilot Indicator.



The survey area in the GRID MODE flips after the aircraft turns 180°.



Survey area in GRID MODE, cross-track information bar at the top of the screen.



TECHNICAL SPECIFICATIONS:

- Power: 24V DC
- Working temperature: 0° to +50°C
- Storage temperature: -20° to +70°C
- Total weight:

COMPUTER CONSOLE

- Computer Board 486SLC-33MHz,4M
- 2 Serial,1 Parallel Ports
- 340MB 2 1/2" Hard Disk Drive min.
- 1.44MB 3 1/2" Floppy Disk Drive
- Dimensions: 48 x 43 x 4.5 cm (19"x17"x1.75")
- Keyboard on a slide-out tray
- Tray dimensions: 48 x 43 x 4.5 cm (19" x 17" x 1.75")

MOVING MAP DISPLAY

- VGA monochrome LCD screen/keypad, 640x480, remote up to 5M (15')
- Dimensions: 22 x 16 x 4 cm (8.5" x 6" x 1.5")

PILOT INDICATOR

- 2line x40character LCD with backlight, remote up to 5 m (15')
- Dimensions: 22 x 4 x 2.5 cm (8.5" x 1.5" 1")

WAYPOINT MODE for point-to-point navigation can be used to navigate directly to the survey area and back to the base or alternate airports.

SOFTWARE:

- NAVTRAIN
- NAVIGATE

OPTIONS:

- Portable P101 Computer Console-substitute for rack-mount chassis (see picture below)
- C3NAV Post-Flight Differential Corrections Software
- Light Bar



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