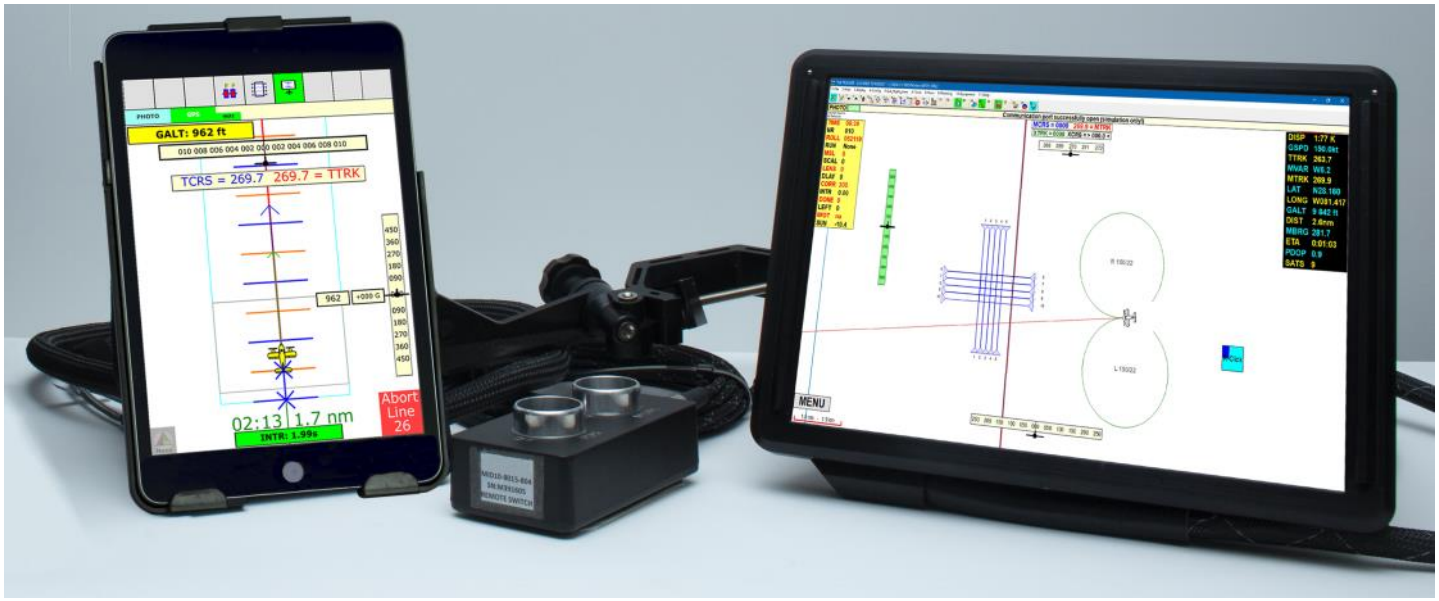
LEAD'AIR INC

OmniTrack

Flight Management System

OMNITRACK Aerial Survey Flight Management System

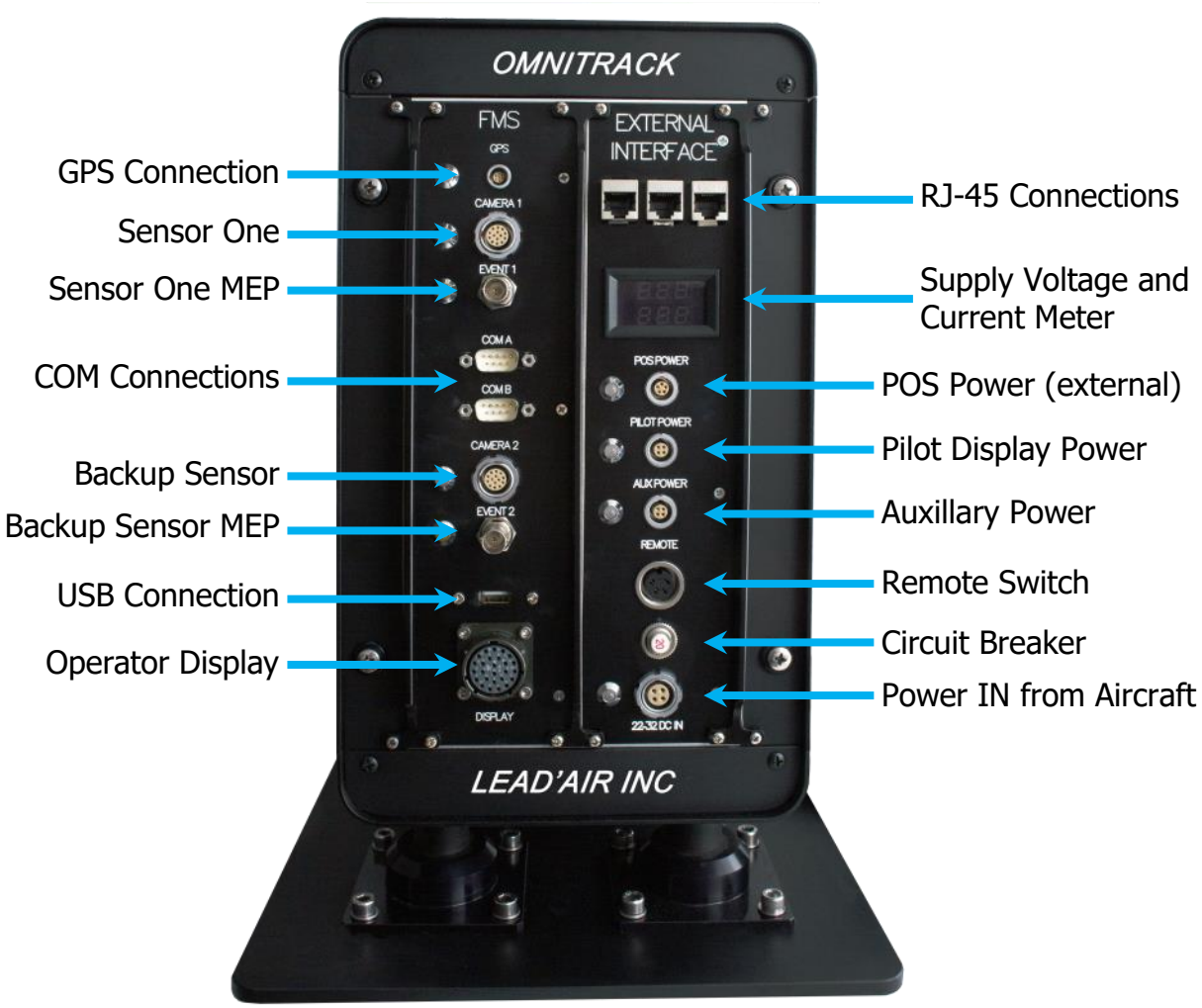


The most innovative and unrivalled Aerial Survey Flight Management System ever offered by Lead'Air!

The **OMNITRACK** has been conceptualized and developed by Lead'Air in our Kissimmee, FL facilities as a complete replacement for our previous NexTrack 2 Flight Management System.

. As with our previous systems the **OMNITRACK** is a combination of the very well-known **Track'Air™ XTrack** software and new hardware that covers all aspects of an airborne acquisition project from planning to final archiving of the data.

The system includes the complete X-Track Suite of Windows based planning and reporting software as well as all necessary hardware for an aircraft acquisition flight.



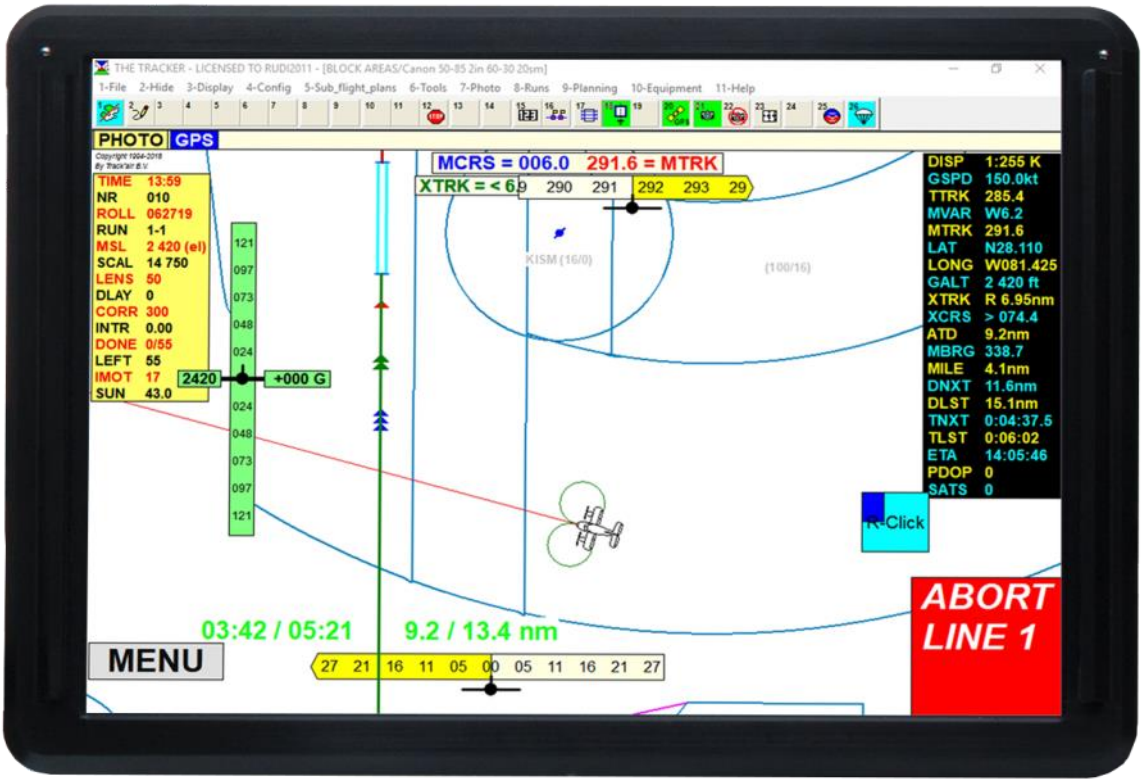
The **OMNITRACK** Control Center delivers more functionality than any of our previous FM systems.

The FMS module has two sensor connections that are independent, the second is a backup. It also provides connectivity to our stabilized gimbals and the system operator display.

In addition, the External Interface section provides various power connections and RJ-45 connectivity for other possible sensor options.

The **OMNITRACK** is a truly customizable system that can even be expanded to add additional functionality and connectivity. (see page 5 "Expansions and options")

The Sensor Operator flat panel display is a bright LVDS specially designed touch screen in a ruggedized aluminum housing. The custom housing connects to the Control Center and allows the display to be safely and directly connected to 24 volt aircraft power. The housing is engineered in accordance with Flat Display Mounting Interface (FDMI) standards.



With a Next-Gen Intel Core i5 processor providing incredibly fast performance, Windows 10 powerful operating system and a crisp bright display, the OMNITRACK has demonstrated it is perfectly suitable for cockpit operation.

The computer software is selectively configured to run the **X-Track snapSHOT** in-flight software module at startup and the operating system is fully protected from unintentional corruption. The touchscreen is a high quality display with a wide viewing angle and backlighting suitable for day or night use. The system adapts ideally to any aircraft environment.

SnapSHOT is used to control the camera or sensor and to provide navigation information to the pilot. SnapSHOT assists the crew in taking the best course of action by continually displaying the current status of the mission. Critical FAA (USA only) aeronautic information (restricted airspace, danger areas, international boundaries, etc.) can be displayed together with the limits of the project. Raster maps and aeronautical charts can also be shown on the background.

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The **OMNITRACK** provides a Wireless Pilot display as an iPad Mini Tablet in a special fan cooled holder with a yoke mount, powered directly from the Control Center. The power cable insures that the tablet has continuous operation for the pilot on extended acquisition flights.

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NOTABLE SPECIFICATIONS:

- CONTROLS MOST LIDAR SYSTEMS AND AERIAL SENSORS
- CONNECTS TO MOST STAND ALONE IMU'S INCLUDING APPLANIX, NOVATEL, ETC

OPERATIONS:

- WIRELESS DISPLAY FOR THE PILOT
- 10 INCH TOUCH SCREEN OPERATOR DISPLAY
- PRECISE VERTICAL TERRAIN FOLLOWING GUIDANCE SYSTEM
- PRECISE CURVED PATH FOLLOWING GUIDANCE SYSTEM

EXPANSIONS AND OPTIONS:

- INTEGRATED APPLANIX AP IMU (15-60)
- INTEGRATED CONTROLLER FOR LEAD'AIR STABILIZED MOUNTS
- INTEGRATED IMAGE DATA SAVER FOR EACH SENSOR WITH AUTOMATED BACKUP

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Track'Air X-Track Flight Management Software Suite

The **Track'Air X-Track** planning software includes 5 independent software modules tightly integrated by means of a common database. All these programs allow the use of raster maps and DEM data in the planning process. A general description of each module is below:

snapXYZ:

This module allows the planner to define project limits and background shapes by typing or loading coordinates into a specific text driven header. The planner can import a variety of CAD files including DXF, SHP, DCW or KML files to be employed as area or background drawings during the flight planning and inflight acquisition process. Additionally, the preparation of individual flight runs or a block of runs from existing coordinate text files can be added to a flight plan header. This can be accomplished by copy/pasting or direct typing. The module includes a graphical viewer for a quick inspection of the data.

snapVIEW:

This module allows you to open, import or save a variety of georeferenced topographic maps and imagery from around the world as well as interface with Google Maps, Bing Maps, or Web Map Services available online.

A selection of drawing tools are available for defining the project limits using screen diitizing on the available raster backgrounds. From digitizing a single polygon as a project limit to creating outlines of specific topographic features and details, or saving the raster image for creating flight lines in the **snapPLAN** module for useful display information during the acquisition process, this is a module you can't do without.

snapPLAN:

This module has a near countless number of options to create flight plans. With automated as well as manual functionality the system allows you to create and optimize blocks of runs and/or single photo strips. The software supports geographical and grid based pinpoint block planning. **snapPLAN** can manually or automatically adjust runs or strips for terrain altitude deviations from existing DEM data.

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snapBASE:

The module that is the hub of the **X-Track Software Suite** has a variety of management tools used to check and track the status and progress of projects. The Project Manager or flight planner employs this to finalize flight plans before missions as well as updating the office database with the data acquired or generated during the flight, from the acquisition computers.

snapPLOT:

The module name says it all. This module is a printing, plotting and exporting utility specially designed for the automated production of aerial survey indices and report documents. An unlimited number of layouts for specific printers can be saved as a means of standardizing or customizing the indices you wish to create. Customizable legends, titles and adding your own logo are all possible in this versatile software. In addition, the planning and acquisition data can be exported as a dxf file to be utilized in other CAD functional programs.

X-Track Tracker Database:

The data produced and processed by **Tracker** is saved to a built in relational Microsoft ACCESS "mdb" database which can be used by any number of programs.

The benefits are:

- Planning and acquisition data is stored in one place and can be easily transferred between computers.
- Data is captured in a structured and logical way using the concepts of a relational database.
- Data can be easily accessed with the Microsoft Access structured query language (SQL) for developing customized databases, applications, add-ons or extensions that access the data directly from the Tracker.mdb database. The **Tracker** database can become part of a new or existing geographic information system (GIS).

TECHNICAL SPECIFICATIONS:

Power Requirements	22-32 volts
Computer Control Center Size	15x17x10.5 inch (38x43x27cm HxDxW)
Navigation Camera Control	X Track FMS
FMS interface	Flat Panel Touch screen
Pilot Display	I-Pad Mini
Operating Temperature	32-140 F (0-60 C)

Weight and balance (may vary slightly with individual system configurations)

Total Weight of System	33 lbs (14.5 kg)