



# NexTrack 3

Flight Management System



**Lead'Air has extended our series of FMS systems to now include the [NexTrack 3](#). A new system based on our NexTrack FMS series with the latest Track'Air X-Track software and 8 seats included.**

The NEW Sensor Operator Tablet is a sturdy Zebra XPAD L10. The design is at home indoors, outside, in freezing temperatures and extreme heat.

With our X-Track software it creates a rugged version of our Sensor Operator Tablets. The tablet adapts ideally to any aircraft environment.

The tablet software is exclusively configured to run the X-Track snapSHOT in-flight software module at startup and the operating system is entirely protected from unintentional corruption. The touchscreen is a high quality display with a wide viewing angle and backlighting suitable for indoor and outdoor use.

The Pilot Display is the Apple iPad MINI which wirelessly connects to the Sensor Operator Tablet and the Pilot also has the ability to select flight lines as well as other controls.

# NexTrack 3

The software includes the complete X-Track Suite of Windows based planning and reporting software as well as the snapSHOT32 control module for the in-aircraft acquisition process.

## NexTrack 3 System:

- TECI-4 Interface
- Lead'Air Operator tablet
- Wireless iPad Pilot Display tablet
- Garmin 18 Navigation GPS
- All required cables



These items, in combination with the complete Track'Air X-Track Software Suite create a powerful, compact and all-inclusive Flight Management System for today's demanding acquisition needs.

## Wide-Ranging System/Sensor Interface

The TECI-4 System/Sensor Interface is not much larger than a cell phone. Connected to the System Operator Tablet via a USB connection, it is designed to draw its power directly from the Tablet. The TECI-4 Interface is delivered with its own 5 Hz 12 channel GPS receiver; however it can also be connected to almost any other GPS receivers that have NMEA output capabilities.

In combination with the **TrackAir X-Track** software on the Sensor Operator Tablet, the TECI-4 Interface triggers the sensor at pre-determined locations and records the positions with high accuracy. The system has the ability to also control "on/off" functions of many of the LiDAR scanning systems on the market.



The TECI-4 likewise performs many other tasks: exposing the details of the mission and the photo position on film (RC30, RMK TOP, etc.); automatically controlling all the camera functions, v/h, FMC, drift, etc. (with the necessary optional equipment) as well as interfacing with most camera mounts and stabilized platforms (**Track'Air Steadytrack**, PAV 30, GSM 3000, TAS, etc.).

It can be used with all existing legacy mapping cameras from the Leica RC10 and RC30 to the Zeiss RMK and LMK large format cameras. Small/medium format film cameras, modern digital cameras (Microsoft Vexcel, Phase One, and others plus some LiDAR sensors are included.

## In-Flight Flexibility

**SnapSHOT** is used to control the cameras and sensors 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.



**SnapSHOT** interfaces with most known survey cameras from small format digital cameras to the latest large format digital mapping cameras. It also manages many types of geophysical equipment (Lidar, frame scanners, etc.)

**SnapSHOT** includes a built in flight simulator which can be used by the crew to become rapidly familiar with the system. Additionally snapSHOT can be interfaced with MS flight simulator for advance familiarization and training with the software.

## Track'Air 's 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 digitizing 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.



## Track'Air 's X-Track Flight Management Software Suite

### **snapBASE:**

The module that is the hub of the **Tracker 32 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).

*Contact [SalesUSA@trackair.com](mailto:SalesUSA@trackair.com) for more information on this NEW ADDITION to the Lead'Air Product line.*