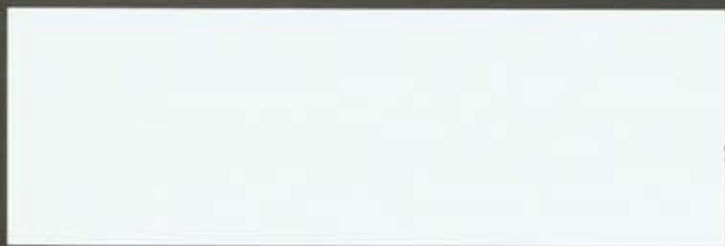


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JULY 2007



# A Black Box for Your Bird

## P2 Aviation Technology's

### TimeTrac Flight Record Management System



by  
**John  
Ruley**



Left: Time Trac Downloading.  
Above: Main menu.

How many hours are on your airplane, and where has it been? Those are two fundamental questions for any aircraft owner. The information is usually contained in log books, but frequently is spread out in more than one—the airframe, engine, and prop logs will tell you how much time is on various components, but figuring out where that time has been accumulated will require looking at pilot logs for everyone who flew the airplane. That's not usually a huge problem for sole owners (provided you're good about keeping your logs

up to date), but it can be a serious issue for flying clubs, partnerships, flight schools and charter operators. What if you have a discrepancy in the logs, or worse, reason to suspect that someone isn't being honest?

With TimeTrac, P2 Aviation Technology has come up with an interesting solution to this problem: A combination of hardware and software that effectively can provide any airplane (provided it has an electrical system) with a "black box" recording all takeoffs and landings. The hardware is actually a silver box that measures 4.30 x 2.4 x 1.2 inches and weighs less than six ounces. It must be installed by a mechanic (which typically requires three - five hours shop time), and should be connected to the same electrical circuit that operates your Hobbes meter (if installed). If you have a "squat switch", it can go behind that so that

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- Silver Plated Contacts Reduce Electrical Arcing Damage During Engagement

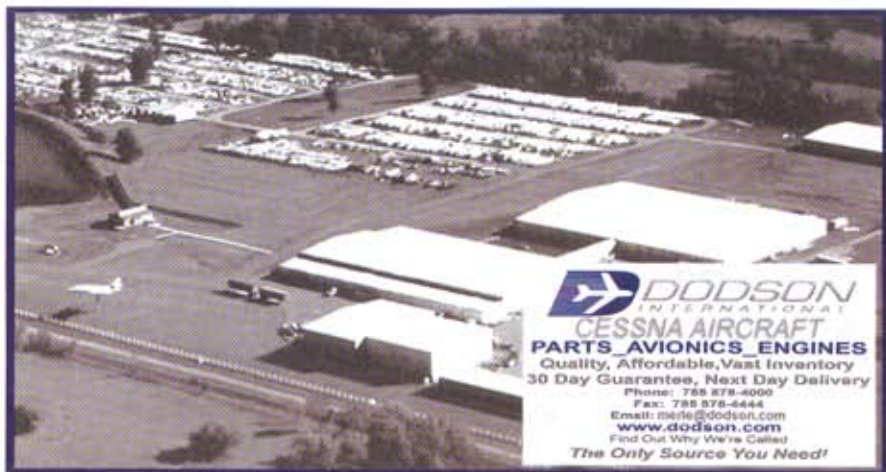
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only time in the air will be recorded. It also needs to be connected to a GPS or LORAN, which can be a panel-mount or portable unit.

Internally, the TimeTrac hardware records up to 2,700 takeoff and landing events, giving both the exact time and location where each event occurred. The hardware includes a real-time clock preset at the factory to Zulu time, and backed up by a battery with a four year service life, which must be changed at the factory (field replacement is not supported).

Once the hardware is installed, you'll install the software on a laptop or notebook computer (or an electronic flight bag, if you own one), which can be either Windows or Macintosh-based. Connecting your computer to the TimeTrac hardware's download port allows you to download events, clearing the hardware unit's internal memory. Now you can generate reports, which include legs flown, age of components, and scheduled maintenance action items, among others. The software consolidates legs to provide block-to-block time and time in service.

The result is a lot less guess work about just where the particular airplane was on specific dates and times. For fleet operators, a single computer can store data from multiple airplanes—each TimeTrac hardware unit has a unique serial number that's associated with the specific airplane in which it was installed. Customization options include the addition of custom airports to TimeTrac's built-in database of some 4,000 public airports. If you regularly fly from a private field or operate a seaplane to and from a particular lake or river, you can enter the necessary data and TimeTrac will then recognize that location instead of reporting raw latitude/longitude.

P2 has a number of examples showing just why this kind of system is valuable on its web site—and they make interesting reading. In one case, a flight school discovered that a student was making unauthorized landings at an unapproved airport. In another case, a cargo operator discovered that one of its pilots was not allowing enough time to warm engines before takeoff. In still another, the sole owner of a twin was able to extend his engine life by identifying some 337 hours of ground holding time

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Top row left to right: Component, Report menu, Headwind. Bottom row: N112 General Info, Airport List, N112WN Overview.

that doesn't count as time in service against TBO.

TimeTrac retails for \$4,795, and is STC'd for installation in over 700 aircraft. P2 Aviation Technology claims that in many scenarios the system will actually pay for itself by reducing the man-hours spent manually recording data and eliminating errors.

For more information, browse <http://www.p2inc.com/timetrac.asp> or call 888-921-8359.

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## P2 AVIATION TECHNOLOGY TIMETRAC® 2.0 TAKES FLIGHT RECORDING AND DATA MANAGEMENT TO NEW HEIGHTS

*Automated flight log system enables aircraft owners to make informed maintenance*

*and management decisions based on flight data* MINNEAPOLIS (Feb. 1, 2007) — In an effort to take the hassle out of collecting, managing, analyzing and reporting flight data, P2 Aviation Technology has introduced TimeTrac 2.0. Designed primarily for managing maintenance tasks and tracking aircraft component life, the latest version expands the usability of the system across all segments of general aviation.

“For the first time, data is readily available and presented in a manner that can be immediately applied to the day-to-day operation and maintenance of an aircraft,” said Steve Petrich, president and founder of P2 Aviation. “Before TimeTrac, it often took hours to organize records in order to get a panoramic view of aircraft usage and component status. With TimeTrac, it is automatic.”

With the latest version of the system, owners have ready access to “in-service” usage tracking, which provides more accurate records, improved component life and simplified warranty tracking. With this data, owners and operators can quickly check flight records, print reports or schedule maintenance when individual components approach recommended times for inspection, replacement or overhaul.

“Whether you own your own plane, run a flight school, maintain a fleet of aircraft or are an aircraft lessor, you understand how challenging and time consuming accurately logging flight data and maintenance tracking can be,” said Petrich. “Mistakes ultimately translate into more man-hours of work for someone. Just like preparing income tax returns, the more organized you are, the easier the task. I developed TimeTrac to help solve the frustrations associated with flight record management.”

New or enhanced features and functionality incorporated into TimeTrac 2.0 include:

- **Synched takeoff and landing activation** — For aircraft

that already make use of some type of switching device to activate and deactivate an existing hour meter, TimeTrac can be synched up with a plane’s existing hour meter.

- **Expanded worldwide airport database** — TimeTrac’s built-in airport database has been expanded beyond the United States to include coverage of more than 9,000 registered airports worldwide. Additionally, operators have the ability to add custom airports and destinations – ideal for seaplane pilots and others who takeoff and landing at points not listed in the database.
- **Enhanced intuitive user interface** — The latest version of the software features an advanced and user-friendly interface which can be customized to individual preferences.
- **Updated aircraft overview page** — For quick reference, an aircraft’s six most recent flights are displayed as well as a comparison of block-to-block vs. time-in-service flight time calculations.
- **Improved service bulletins and A.D. timers** — The system now has the capability to label Service Bulletins and Airworthiness Directives as “one-time,” “recurring,” “not applicable,” and “closed,” making it easier to identify, time and manage.
- **Installation diagnostics** — The latest version of the system includes a diagnostic tool that enables the avionics technician to verify that the system is installed and working properly. Upon successful completion of the diagnostics, owners receive a verification code which is also registered with P2 for warranty purposes.

**Priced at \$2,495, the FAA-approved system can be purchased online at [www.p2inc.com](http://www.p2inc.com) or by calling (888) 921-8359.**

**For more information visit, [www.p2inc.com](http://www.p2inc.com)**

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