

Flight Log Maker ... History of Updates

6/12/95

Version 1.1 Update: Modified the text only program with a graphical user interface (GUI) and mouse support.

2/28/96

Version 1.2 Update: Improved user interface. Added feature to create multiple flight logs. "Print" and "file" routines now have separate push buttons.

6/07/96

Version 1.2(d) Update: The distance to climb bug was fixed to use ground speed rather than TAS. Added the feature to save navigation and airport data.

7/1/98

Version 1.2(e) Update: Added Celsius equivalent temperature to the Fahrenheit list boxes and small changes to user interface.

3/14/99

Version 2.0 Update: Added the File Manager to create/edit the aircraft(s) data files from within Flight Log Maker. Also added confirmation message filter before terminating program from any window.

10/02/99

Version 2.0 Update: New list box on performance data page to enter the start, taxi, and take-off fuel.

3/9/2002

Version 2.1 Update: Fixed File Manager Program to initialize all elements within each record of a newly created data file to zero. Previously, you had to manually do this. This way you only have to put data in where it belongs.

6/10/2003

Version 3.0 Update: New weight and balance feature added to allow pilot to add aircraft with specific weight and balance information and a CG window manager to edit CG normal and utility category data. Also edited the performance file manager (now version 2) to fill all data entry fields with current data when you select "get".

12/30/2008

WB Version 1.2 Update: Weight and Balance Utility updated to allow user to retrieve a saved tail number (registration) and load it without having to manually type it in.

05/01/2009

Version 4 Update: Increased the number of barometric values in the main program "barometric pressure" list box. Added 1 hour of cruise fuel as a reserve to the total fuel required. Actual data files used are listed and some of the atmospheric numbers are now color coded to better show the user what is happening. Added new messages in printed flight log to warn of extreme temperature or density altitude. Formatted frequencies to stay aligned when one is not used in printed flight log. Added a new data entry field to enter the usable fuel on board. Added an alert to pilot if fuel required exceeds this value.

Flight Log Maker 4 will now use the default power setting for the altitude flown if there is no data available for the pilots selected power setting. With this default power setting, it will try to reopen the performance data files as before (based on atmospheric conditions). If still unsuccessful, then the default values will be used. Should this occur, a changed power setting will appear on the flight log page and the printed log. Before, the program would simply use default values if no values were found in the appropriate performance data file. When a saved flight plan is reopened the date last revised is now displayed.

05/29/2011

Version 4.1 Update: Added plus and minus symbols for wind correction. Fixed a problem with the altitude selection error check. (Would print the flight log even if error in selection of altitude.) The log is NOT to be printed when there are errors in the NAV information, POWER selection, missing PERFORMANCE DATA files, or insufficient FUEL on board aircraft. The CALC function has been modified to only show the first error it encounters before termination. Prior versions required you to "click" through all of the errors before the CALC function would terminate.

12/24/2011

Version 4.1 Update: Fixed problem with "(blank).log" being saved as a valid log name. This is allowed in the Linux OS since any file beginning with a "." or without a prefix is considered as a valid file by the system. Also Removed The Error Sound When An Error Occurs. This sound only worked with the PC speaker and was annoying. All errors will show in a warning window as before.

12/28/2012

Version 5.0 Major Update: Flight Log Maker 5 now permits the user to create aircraft! The aircraft selection list boxes that were previously displayed have been removed and replaced by an entry field where an "aircraft information" file is loaded. No limit to the number of aircraft that can be created. An easy to use utility is used to create the aircraft information file. Each program contains a "find" push button to list and select aircraft information files. A single search program replaces separate utilities that retrieved various files requested by the programs. A new save trip push button has been added to the navigational data page. A professional looking user manual has been created. The density altitude formula has been modified and other modifications such as the way windows open and close have been modified. All of the utility programs can now be run either stand-alone from the command line or by push button in selected programs.

/* This notice is no longer valid. Removed/Fixed 11/14/2013 in Version 5.1 */
AS A SAFETY MECHANISM, ANY TIME YOU GO BACK TO THE "PERFORMANCE DATA PAGE" THE PROGRAM WILL NOW PREVENT THE USER FROM RELOADING THE TRIP USING JUST THE "LOAD TRIP" BUTTON ALONE. IF YOU GO BACK TO THE "PERFORMANCE DATA PAGE" AND WANT TO SAVE THE FLIGHT PLAN DATA AFTERWARD, MAKE SURE YOU ALSO FILL OUT THE "TRIP NAME" ON THAT PAGE. IF YOU DON'T, YOU WILL NOT BE ALLOWED TO RE SAVE THE DATA. IF YOU DON'T HAVE A NEED TO GO BACK TO THE "PERFORMANCE DATA PAGE" YOU CAN SAVE THE FLIGHT PLAN DATA WITHOUT HAVING TO "RE LOAD" THE "TRIP NAME". I STRONGLY SUGGEST YOU MAKE YOUR CHANGES TO THE FLIGHT PLAN AND SAVE BEFORE YOU GO BACK TO THE FIRST PAGE OF THE PROGRAM.

05/26/2014

Version 5.1 Update: Fuel required for trip will be displayed in one of three colors depending on how much fuel is left over, should you use or not use some of your 1 hour reserve and fixed several verification bugs. Now you can input the DRY and WET rental rates, and fuel costs per gallon and get cost estimates for the flight.

Also updated the aircraft creator program to use a pushbutton to toggle the "complex/not complex" aircraft performance tags instead of a toggle button.

Made cosmetic changes to the Performance information page, re worked the help files on the performance page and the navigation page.

Added a user verify step before clearing the NAV information with the CLEAR button. Added a button to go to the aircraft information file manager from the performance page.

02/23/16

Version 5.1b Update: Added the ability to store maximum fuel capacity. You can only supply a fuel amount up to the set maximum supplied by the aircraft information file. Fuel warnings will appear when not enough fuel loaded to fly the trip (+1hr reserve) or if too much fuel is set. Rate of descent is now adjustable between 500 and 1200 feet per minute to accommodate single and multi-engine aircraft.

08/25/16

WB Version 2 Update: Warns against using a total "fuel on board" greater than the fuel capacity or a larger fuel burn than the amount placed on the aircraft. WB was updated from version 1.2 to 2 when Flight Log Maker v5.0 came out on 12/28/2012.

12/07/2016

WB Version 3 Update: Both takeoff and landing CG (if fuel burned) are now displayed in the same window. Both normal and utility CG is shown (if applicable). Normal take off gross weight is shown at the top and a utility gross weight is also shown next to utility CG. A new over weight warning will appear if take off weight exceeds the aircraft gross weight.

NOTICE: Program launchers have been removed from each of the applicable programs due to loss of mouse during the switching from one program and back again. Hopefully, I can figure out why this is occurring and return the push button links. For now, just launch each of the programs individually.

6/6/2020

Version 5.2 Update: The color coding of fuel required in the flight plan window has been enhanced to show color coding for every leg of the flight plan. Now you can see where the aircraft starts using your last hour of fuel onboard, first with the YELLOW "fuel caution" alert, followed by the RED "fuel warning" alert.

4/8/2023

Version 5.3.1a and WB Version 3.1 Update: Changed the messaging on the main window to show when the aircraft is loaded or not loaded. For example: If you press the "FIND" push button and cancel, the "no aircraft loaded" would be removed. The aircraft entry field may have an aircraft in it but that would not mean it was actually loaded, reminding the pilot to press the "Read aircraft file" push button. Added a verify window when assigning the CG association in the WB utility.

10/05/2024

Version 5.3.1a to 5.3.1b

Modified the Density altitude calculation to use a more closely modeled formula. Old formula: $da = \text{elevation} + ((OAT - ISATEMP) * 127)$. The new formula is the same, except that the multiplier is a more closely modeled, 121, but still slightly conservative of the generally accepted value of 120.

Why I created Flight log Maker.

Flight log maker was started as a personal flight planner for myself and to check the flight planning of my students when flight planning assignments were given to them. Over the years, the program has grown and evolved into what it is today.

About the program...

Not typical compared to other flight planning tools, Flight Log Maker 5 is built around the "Aircraft Performance" of the aircraft you use for a flight. Most, if not all other flight planners provide limited performance choices and are based on flight data that must be updated every 56 days or so.

Flight Log Maker has been designed to allow users to make comparisons between various atmospheric conditions, power settings, and aircraft.

Performance data files, once created, usually do not need updating. The performance data is derived directly from the aircraft's pilot operating handbook.

The log displayed will show many details such as fuel required, time en route, ground speed, total mileage, wind correction, magnetic heading, time and distance remaining after each leg flown. The trip file created will also show the fuel on board, and airport information such as the airport frequencies, and atmospheric information like the density altitudes, and rates of climb for take off and cruise flight. You can print the trip log directly from the program or save the "FLIGHT LOG" and print it using any text editor or word processor. All of the flight plan information including the departure and arrival airport elevation and communication frequencies are savable.

The pilot must enter the value for the usable fuel aboard the aircraft. If it is not enough, the flight plan will not be created. That value also must not exceed the usable fuel maximum. The program always adds 1 hour (reserve) to the required fuel to get the total fuel required.

A green colorized "total fuel required" value represents that the full 1 hour (or more) of reserve remains after the trip has been flown. Yellow means that 30 to 59 minutes of reserve remain, and red means that less than :30 of reserve remain. You should make every effort and place enough fuel on the aircraft so that the total fuel required is displayed in green.

The colored fuel alerts have been enhanced as of version 5.2 to show what leg of your flight plan the alerts begin appearing.

Density altitude is displayed in gray, yellow, or red. Yellow means that it is either 2000 ft above or below the actual altitude and red means that density altitude will affect the flight in a very adverse way.

The program will calculate a distance required for descent to the arrival airport and if you try to flight plan with an altitude that is too high, the flight planner will warn of this as well. You will have to correct the error before the flight plan is calculated.

Additionally, other verifications are used to ensure program data has been correctly input. (examples: incorrect magnetic course, blank fields, typed letters where numbers belong, etc.)

Flight log maker has the ability to choose a power setting for the pilot if there is no performance data found with the pilots choice. The Flight log results page will alert the pilot of the change if any.

Should the default file data be used, you will be alerted to this change by a "blinking" warning at the top of the "Flight Log" screen. Either "Default takeoff data used", "Default cruise data used". Sometimes both warnings are displayed.

The default files are used when recalculating a new power setting. They can also be used for the flight when a search for a valid power setting fails to retrieve performance data.

The flight planner allows you to compare the performance of each aircraft at multiple power settings and altitudes and allows the user to see the estimated fuel costs, and if desired, both the WET and DRY rental cost.

Please remember to verify that all route and airport data is current. Every time you load a flight plan that was previously saved, the most recent date you edited the file is also displayed.

Important Note: YOU SHOULD ALWAYS CHECK THE NOTAMS LISTED FOR YOUR DEPARTURE AND ARRIVAL AIRPORTS FOR THE LATEST UPDATED AIRPORT INFORMATION SUCH AS MEN AND EQUIPMENT WORKING, RUNWAY CLOSURES, NAVAID STATUS, ETC.

To retrieve a previously saved trip, select "Get Trip" from the NAV page. Double click or highlight the flight plan file and select "Load". This flight plan is now "selected for load" then you are returned to the Flight Log Maker program. Now select "Load Trip" then press any key, and the trip appears in the NAV entry fields. Just change winds, enter the fuel on board, and verify that navigational and airport data is current then select "Next". Now you are on the "Flight Log Results" page. Select "Calc" (Calculate) and you've just created your first flight log. Want to go back and change the winds. Just select "Back", and make the change and select "Next" and then press "Calc" again and the trip is quickly recalculated.

The "Print" and "Save log" push buttons will only work if you have first pressed the "Calculate" push button. You must recalculate every time you come back to the "Flight Log Results" page from any other page.

When saving NAV or LOG information, you are always warned if you are about to write over any file of the same name and can cancel the write operation if you choose.

The aircraft creator utility allows the user to create an aircraft for use with the flight planner, weight and balance, and the file management utilities. Once an aircraft is created, the file management utilities automatically recognize your new aircraft and create the files necessary for flight planning and weight and balance. These empty files are now ready for the user to input data.

Remember, aircraft must fly at altitudes at or below 12,000 FT MSL and use either RPM or a combination of RPM and Manifold Pressure.

The weight and balance program allows the pilot to save an aircraft by its TAIL (registration) number. The pilot supplies the numbers specific to the TAIL number (basic empty weight and CG) and links the tail number to the appropriate CG window with the ASSOCIATE button. All subsequent saving of payload data can be saved using only the "save" push button because the weight and balance program now "knows" the CG association.

Ten aircraft have been created and included with the program. They are the Cirrus SR20, Cessna 152, Cessna 172, Piper Warrior II, Piper Arrow III, Cessna 172RG, Cessna 182, Cessna 210 M, Beech craft Bonanza A36, Cessna 310 Q.

Flight Log Maker 5 can be run from DOS, Linux (with DOS emulator), Windows 98/XP, or Windows Vista, or Windows 10/11 (with DOS emulator).

Because Flight Log Maker was started many years ago, it was written and compiled in C language and is a DOS program. To run on modern operating systems like MAC OS, Windows, and LINUX, it can be run using DOSBOX. DOSBOX comes in versions for all of the 3 major operating systems. It can be found on the internet by searching DOSBOX. The current link is <https://www.dosbox.com/download.php?main=1>

Separate instructions for installing DOSBOX and your Flight Log Maker folder are included for each OS with shipment.

MS Windows is the the trade mark name for the Microsoft Windows Operating system and is copy written by the Microsoft Corporation. The Mac OS is the copy written trademark name for the OS used by Apple computer systems.

A mouse IS required to use the program. You can also move about the entry fields with the TAB key but you will need the mouse to scroll the log page.

It is required that you run the program from your computer hard disk. However, with LINUX OS you can run it from hard disk or USB stick. If you would like to give LINUX a try, go to <https://www.distrowatch.com> and on the right side of the screen look for MX-Linux, Ubuntu, Linux Mint. They are all user friendly versions.

Linux users using DOSBOX must highlight the FLM5.EXE file using the mouse and then right click the mouse and select OPEN WITH. Select DOSBOX (or other DOS emulation program) and <enter> to run. This also works for the other utilities (Performance file manager, Weight and Balance, Weight and Balance CG manager and Aircraft Create utility).

Flight Log Maker 5 is a tool to aid the pilot with flight planning. It is different from other flight planning tools. It does not replace checking of NOTAMS, TFR's, weather reports and forecasts and other planning required of the pilot.

When writing the program, my focus was to create a flight planning tool for giving you information that other flight planning tools fail to do, like the ability to compare performance based on many parameters of which you could change with a few mouse clicks (even change the aircraft used) and see the new performance based on those changes.

You can add aircraft of any type, as long as you have performance data and a weight and balance CG window.

What Flight Log Maker 5 doesn't do...

Does not file flight plans or retrieve weather.

Is not a mapping software program. (Won't do the navigation for you.)

The Flight Log Maker 5 program (Full version) includes the most up to date flight planner, weight and balance program, performance file management utility, CG file management utility, aircraft creator utility, and performance templates, ALL of the airplane data I have created to date, and instruction booklet. The only payment required is a \$15 (includes USB drive + shipping fee).

For More information on Flight Log Maker 5 write to:

Ronald Lewis
5840 S. 18th Street
Milwaukee, WI 53221
E-mail: rlewis.rlewis@gmail.com

I accept money via Cash APP: \$PayRon57

Or you can send a U. S. money order payable to

Ronald Lewis. Checks are accepted but only on U. S. Banks.

I also accept Bitcoin (PLEASE CONTACT ME BEFORE SENDING ANY BITCOIN). I will assign you a wallet to send to.

About the Author...

I received my first flying lesson in 1979. I hold an ATP Pilot Multi-Engine Certificate and a Certified Flight Instructor-Airplane certificate with Instrument Instructor and Multi-Engine Instructor ratings. I flew the Cessna 210, Beech craft Baron 58, Beech 99, ATR42, and ATR72 aircraft for various air freight operations and retired from flying in 2010. In the future, I may create a website where users can upload their custom data files and download ones that other users have created.