

# PilotCalc Help



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## Application Summary

PilotCalc is a utility comprising a mini Flight Log and Time Calculator. The basic functionality of the Time Calculator and the Flight Log is free with no ads, but there are two one-off in-app purchases available to extend the usefulness of the app and to customise its appearance.

The Flight Log is designed to enable pilots to log basic flight information and a few notes for a series of flights. It automatically calculates the associated block, airborne, duty and tech log times. If scheduled times are entered before flight, it also provides a countdown to departure. The Flight Log can be used in UTC or system time. Buying the Flight Log Preferences in-app purchase allows for customisation of the Flight Log. This customisation includes:

- Tailoring the departure countdown, including adding and removing alert times, changing associated colours and the option to enable audio and/or background notifications for each countdown alert.
- Displaying elapsed times in hours and minutes or in decimals.
- Changing the default periods used for calculating the Duty Start and Duty End times.
- Changing the tech log calculation to use block times instead of airborne times.

The Time Calculator is designed to add up logbook entries with minimal keystrokes, but can be used for any hours and minutes calculations, including those involving elapsed time within a 24 hour period (useful for those duty time sums at the end of a long night). There are no practical limits to the number of hours that can be added, but time calculations resulting in negative time values are not supported. All calculations are held in a rolling tape for reference. The free version of PilotCalc offers three different calculator keyboard colour options and includes the hours and minutes time calculator. Opting to pay for the Calculator Preferences in-app purchase unlocks eight additional keyboard colours and two additional calculators - a decimal time calculator and a basic arithmetic calculator. With the Calculator Preferences enabled, hours and minutes calculations and decimal calculations are automatically converted when switching between the two time calculators.

The app was developed to work well on the relatively small screen of an iPhone but scales effectively to the larger iPad screens. This version does not allow synchronisation between devices.

Please visit [www.coldaridcode.com](http://www.coldaridcode.com) for more information or follow us @coldaridcode for the latest news. If you find PilotCalc useful we would really appreciate a review on the App Store!

## Navigation & Overview

In the following pages, grey boxes show general information whilst blue boxes show information specific to the indicated function.

The app clock can be toggled between UTC, system time and, if different, local time by pressing on the clock.

The + button adds a new flight record.

The ellipsis button opens a menu of additional options such as preferences and contact information. This option is available on the Flights, Calculator and Help tabs.

The 'What's New' information box appears whenever a new version of the app is downloaded. It has scrollable text showing a summary of what has changed since the last version. The information box can be reopened from the ellipsis menu and the same information is also available at the end of this Help file.

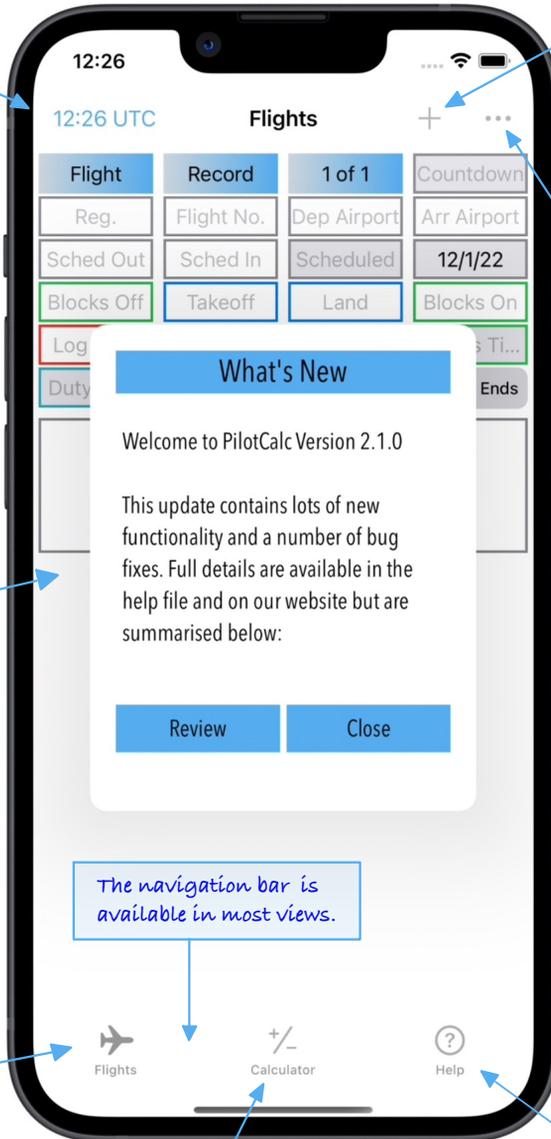
**validation:** The application performs basic validation on some fields. If keyboard input is not accepted, please check the validity of the input. Examples of validation include checking that airfields are 3 or 4 characters in length (IATA/ICAO) and that times conform to a valid time based on the 24 hour clock. Minutes cannot exceed 59.

The navigation bar is available in most views.

Opens the Flights view.

Opens the Time Calculator view.

Opens the Help view.



## The Flights view 1

This view is designed as a mini flight log, a scratchpad of sorts, to hold details of a series of flights.

Unless you have flights from a previous version of the app, the flights view will initially be empty.

The airport fields expect a three or four character entry (IATA/ICAO).

Grey fields are automatically calculated and, with the exception of the Date field and Duty Start and Duty End fields, do not allow user input.

- Add a blank flight record using the + button.
- Delete flights by swiping left.
- Copy flight number, airfields and scheduled times to a new row by swiping right.
- Reorder flight records by holding and dragging.

Flight	Record	1 of 1	Countdown
Reg.	Flight No.	Dep Airport	Arr Airport
Sched Out	Sched In	Scheduled	12/1/22
Blocks Off	Takeoff	Land	Blocks On
Log Start	Log End	Air Time	Blocks Ti...
Duty Start	Duty End	Total Duty	Duty Ends

This is a free text field for notes.

The Countdown field shows the time between the current time and the Scheduled Out time within 6 hours either side of the schedule. When a Blocks Off time is entered the Countdown is stopped and shows the difference between the Scheduled Out time and the Blocks Off time.

A date may be entered using the date picker. Future dates, suppress the countdown until six hours before the flight. If a date is not entered manually the current date, or next day date is automatically entered. When an off blocks time is entered the date is updated to reflect the actual departure date.

Time and log fields have a coloured outline to show related fields. For example, the airborne times are outlined in blue.

Times should be entered in the 24 hour clock. An hours and minutes separator is not required as a colon will be automatically inserted.

## The Flights view 2

This view is designed as a mini flight log, a scratchpad of sorts, to hold details of a series of flights.

By default the Duty Start is calculated as one hour prior to Scheduled Out. The Duty Start may be manually overwritten but changing the default one hour requires purchasing the Flight Log Preferences.

The default Duty End is based on the Scheduled In time plus fifteen minutes or, when entered, the actual Blocks On plus fifteen minutes. Like the Duty Start this value may be overwritten but changing the default requires the Flight Log Preferences to be unlocked.

Both the Duty Start and Duty End fields may be manually overwritten. If manually overwritten the overwritten field will be highlighted with a wider border. To return to the calculated value delete the manual input.

The screenshot shows a smartphone interface for a flight log application. At the top, the time is 12:36 and the title is 'Flights'. Below the title is a table with columns: Flight, Record, 1 of 2, and a red-bordered field containing '-0:10'. The table contains two rows of flight data. The first row has Flight 'G-ABCD', Record 'ABC123', EGAA, and EGNX. The second row has times: 15:00, 16:10, 1:10, and 12/1/22. Below this is another row with times: 15:10, 15:20, 16:10, and 16:20. The next row has times: 1000:00, 1000:50, 0:50, and 1:10. The final row has times: 14:05, 'Duty End', 'Total Duty', and 'Cont. Duty'. Below the table is a section with columns: Flight, Record, 2 of 2, and Countdown. The first row has Reg., Flight No., Dep Airport, and Arr Airport. The second row has Sched Out, Sched In, Scheduled, and Date. The third row has Blocks Off, Takeoff, Land, and Blocks On. The fourth row has 1000:50, Log End, Air Time, and Blocks Ti... The fifth row has 14:05, Duty End, Total Duty, and Duty Ends. At the bottom of the screen are three icons: a blue airplane icon labeled 'Flights', a calculator icon labeled 'Calculator', and a question mark icon labeled 'Help'.

The duty toggle determines whether a duty ends or continues to the next flight. All the duty times are re-calculated when this toggle is changed.

The log fields are designed to hold an airframe hours value. Therefore by default the Log End value is calculated from the Log Start value plus airborne hours. If the Flight Log Preferences has been purchased this calculation can be toggled to use block times instead of airborne times. The Log End value will be carried forward to the next flight record if the next Log Start value is blank.

## Standard Arithmetic Calculator

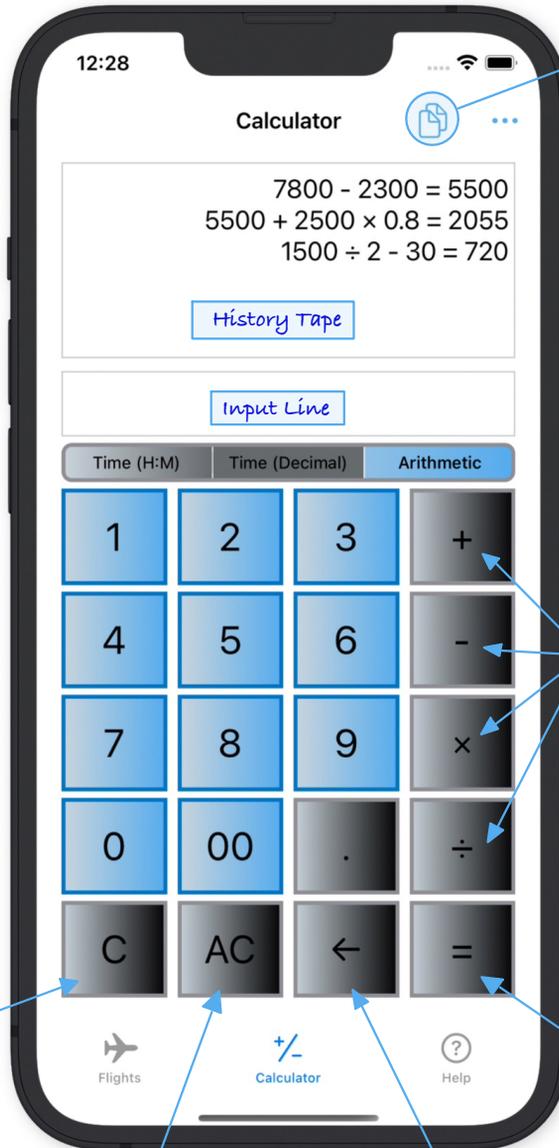
The arithmetic calculator is a simple mathematical calculator handling standard addition, subtraction multiplication and division.

The History Tape is automatically saved on all calculators and restored when returning to the calculator view from an alternative screen or other task.

However, switching between calculators whilst using the calculator changes the History Tape (and Input Line) as follows:

Switching between the Hours and Minutes and Decimal Time calculators converts the displayed values to the relevant format. Switching to or from the Arithmetic Calculator clears the History and Input Line ready for a new calculation (this is equivalent to pressing the AC Button).

Copy button : Saves the contents of the history tape to iOS clipboard.



Standard addition, subtraction, multiplication and division operators.

Clear Button: This button clears the input line. Note that pressing the +/- or → buttons when the input line is empty will retrieve the last result from the history tape.

Clear All Button: This button clears the input line and history tape.

The Backspace key sequentially removes the last digit from the input line.

Equals button calculates the result of the entered calculation.

## The Calculator View - Hours & Minutes Calculator

This is the default calculator. It is primarily designed to for hours and minutes calculations although may also be used for calculations involving clock times. Negative values are not supported.

Entered numbers are assumed to be hours and minutes unless modified by the Time key or the Until key.

The history tape shows examples of three different types of calculation:

1. Adding hours and minutes to a clock time, resulting in a later clock time.
2. Adding together a number of hours and minutes to give an hours and minutes result.
3. Performing an Until calculation resulting in the hours and minutes between two clock times.

**Time Button:** Pressing the Time button causes the entry to be treated as a clock time (indicated by a superscript T). This key can be used at any point during the entry of the time.

**Clear Button:** This button clears the input line. Note that pressing the +/- or → buttons when the input line is empty will retrieve the last result from the history tape.

**Clear All Button:** This button clears the input line and history tape.

**Copy button:** Saves the contents of the history tape to iOS clipboard.

**Superscript T** indicates a clock time instead of hours and minutes and is entered using the Time button. This example shows 17:30 in the afternoon rather than 17 hours and 30 minutes.

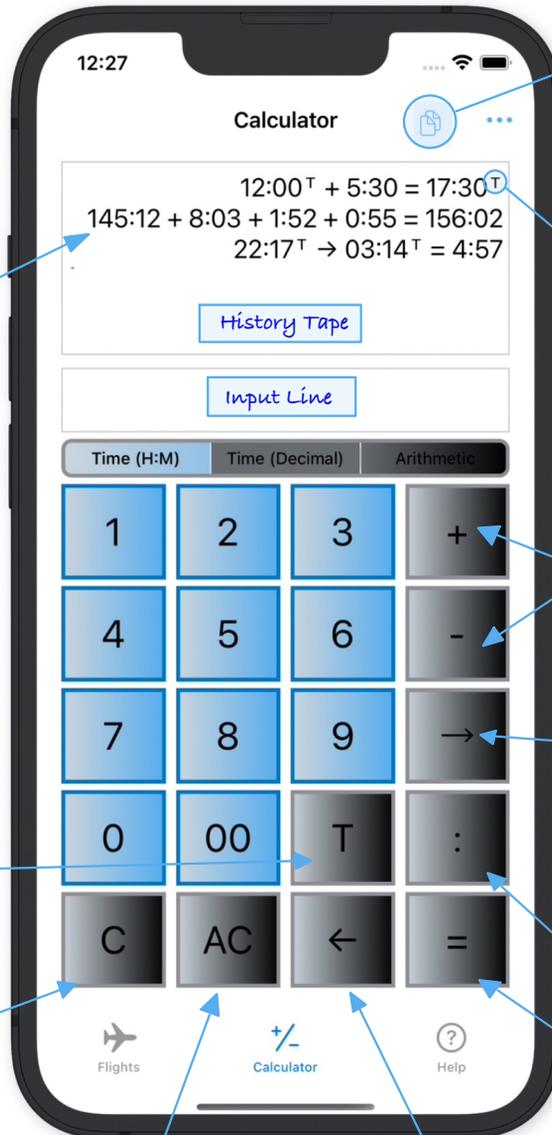
**Add/Subtract:** used to add or subtract hours and minutes or to add or subtract a number of hours and minutes from a clock time.

**Until button:** used to determine the number of hours from one time until a later time. As the until button can only be used with clock times, use of the Time key is not required.

**Optional separator button.**

**Equals button** calculates the result of the entered calculation.

**The Backspace key** sequentially removes the last digit from the input line.



## The Calculator View - Decimal Time Calculator

The decimal time calculator is designed to for decimal calculations and also supports calculations involving clock times with a decimal result. Negative values are not supported.

Entered numbers are assumed to be hours and minutes in decimal format unless modified by the Colon key or the Until key.

The history tape shows examples of three different types of calculation:

1. Adding hours and minutes to a clock time, resulting in a later clock time.
2. Adding together a number of hours and minutes to give an hours and minutes result.
3. Performing an until calculation resulting in the hours and minutes between two clock times.

**Colon Button:** Pressing the Colon button causes the entry to be treated as a clock time (indicated by a superscript T). Clock times must be entered as hours and minutes not decimals.

**Clear Button:** This button clears the input line. Note that pressing the +/- or → buttons when the input line is empty will retrieve the last result from the history tape.

**Clear All Button:** This button clears the input line and history tape.

**Copy button:** Saves the contents of the history tape to iOS clipboard.

**Superscript T** indicates a clock time instead of hours and minutes and is entered using the Time button. This example shows 17:30 in the afternoon rather than 17 hours and 30 minutes.

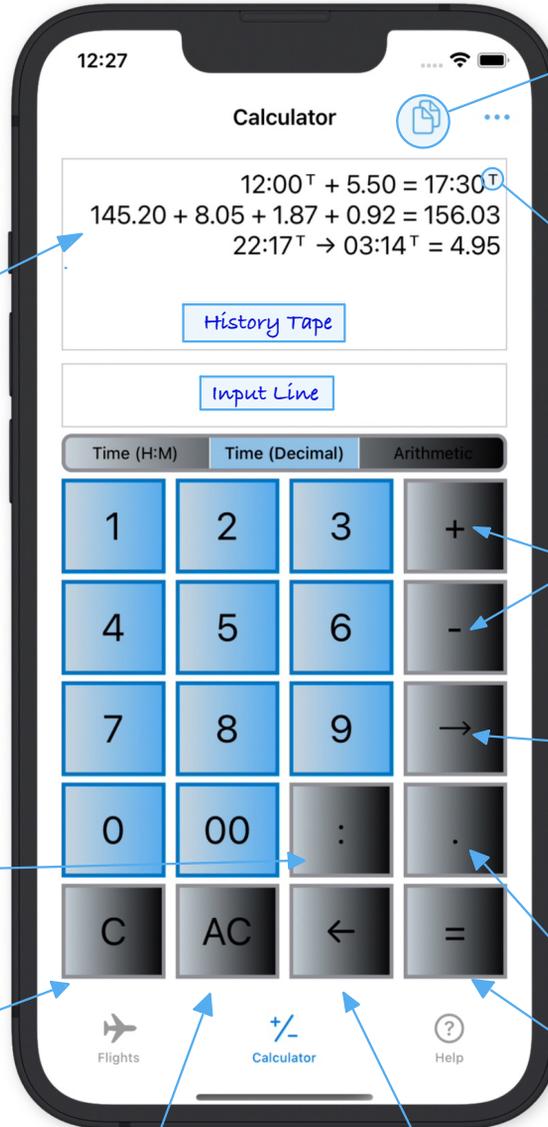
**Add/Subtract:** Used to add or subtract hours and minutes or to add or subtract a number of hours and minutes from a clock time.

**Until button:** Used to determine the number of hours from one time until a later time. As the until button can only be used with clock times, use of the Time key is not required.

**Decimal Button.**

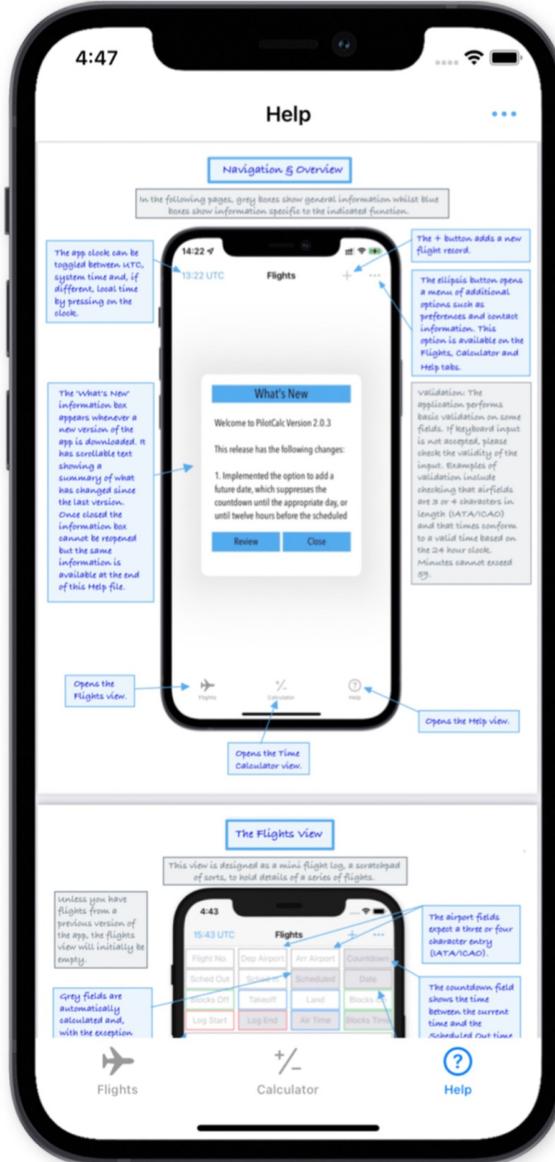
**Equals button** calculates the result of the entered calculation.

**The Backspace key** sequentially removes the last digit from the input line.



## The Help view

The Help is intended as a guide and is not exhaustive but should contain sufficient information to answer most questions. If you need further help on a function or have any queries please get in contact.



The Help view uses a PDF file with an in-app PDF reader allowing it to be referenced irrespective of whether there is an internet connection. This file can also be viewed or downloaded at [www.coldaridcode.com](http://www.coldaridcode.com)

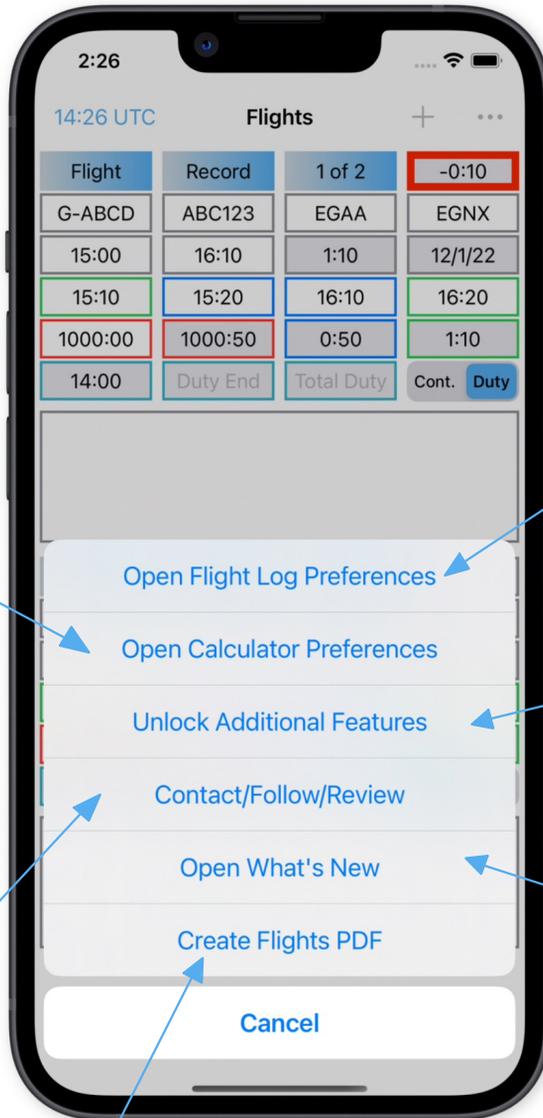
## The Ellipsis Menu

Selecting the ellipsis button opens the menu shown in this image.

The ellipsis menu is available on the Flights view, the Calculator view and the Help view.

Opens the Calculator Preferences view which allows the selection of different coloured calculator keys. There are three free options and eight additional options which can be enabled by buying the Calculator Preferences in-app purchase. The in-app purchase also provides access to the Decimal Time and Arithmetic Calculators in addition to the free default Hours & Minutes Time Calculator. A previous purchase of one of the Colour Packs automatically enables the Calculator Preferences.

Opens a view with options to email us, follow us on Twitter or go to our website. It also has a link to review PilotCalc on the App Store - this would be very much appreciated!



Opens the Flight Log Preferences view allowing configuration of the countdown options as well as changes to duty time defaults and Flight Log calculation preferences. Please note that making changes to the default Flight Log Preferences requires a small in-app purchase. A previous purchase of Countdown Preferences automatically enables the Flight Log Preferences.

Opens a view for making in-app purchases and restoring previously bought options.

Reopens the 'What's New' window which shows what has changed in the latest version of PilotCalc.

This option is only shown in the menu opened from the Flight Log. It creates a simple PDF report of all flights in the Flight Log and enables the report to be emailed, printed, saved or otherwise manipulated using the Apple Share menu.

## Flight Log Preferences 1

The default Flight Log Preferences are shown. These provide the functionality of PilotCalc version one. To make any changes to these defaults requires a small in-app purchase. Additional details on the next page.

Adds a new row to the Countdown Preferences table.

Toggle to determine whether elapsed times on the Flight Log are shown in hours & minutes or in decimals. By default elapsed times are shown in hours & minutes.

The countdown field on the Flights view will show a green surround from six hours before scheduled departure until the scheduled departure.

At the scheduled departure the countdown field surround will turn blue.

Once the scheduled departure has passed, the countdown surround will turn red and remain red until six hours after the scheduled departure.

The screenshot shows the 'Flights' settings page with three main sections: Calculation Preferences, Duty Time Preferences, and Countdown Preferences. The 'Calculation Preferences' section has 'Elapsed Times' set to 'H:MM' and 'Log Calculation' set to 'Airtime'. The 'Duty Time Preferences' section shows 'Duty Start' as '-1:00' and 'Duty End' as '0:15'. The 'Countdown Preferences' section has a table with three rows. The first row has a green border, the second a blue border, and the third a red border. Each row has an 'Alert Time' field, 'Sound' and 'Notify' toggle switches, and an 'Enable Background Notification' toggle switch.

Swipe Right For Colour	Alert Time H:MM	Enable Audio Alert	Enable Background Notification
Green	6:00	Sound	Notify
Blue	0:00	Sound	Notify
Red	-0:01	Sound	Notify

Determines whether the Log Time calculation uses Air Time or Blocks Time to calculate the Log End value. The default is Air Time.

The time (in hours and minutes) relative to Scheduled Out that is used to calculate Duty Start. By default this is one hour prior to Scheduled Out.

The time (in hours and minutes) after Scheduled Arrival or Actual Blocks On that is used to calculate Duty End. By default this is 15 minutes.

The alert time is relative to the scheduled departure time. A minus indicates a time after scheduled departure.

Sound and background notifications are switched off.

With the default settings, if a Blocks Off time is entered on the Flights view the countdown colour will indicate whether the flight left early (green), on time (blue) or late (red).

## Flight Log Preferences 2

The Flight Log Preferences in-app purchase allows changes to the countdown configuration, the duty time defaults, the inputs to the Log Time calculation and whether elapsed times display in decimal or in hours & minutes.

To change the colour of a row, swipe right of a row, swipe left. To delete a row, swipe left. Re-order rows by holding down a row and dragging and dropping it into a new position. Change the alert time by entering a new value between 6:00 and -6:00 hours using the keyboard.



This countdown surround will remain orange as the countdown has been stopped by entering an actual Off Blocks time.



Background notifications and audio alerts are enabled on an individual row basis using the toggle switches. for one hour before scheduled departure. The time is changed by entering a new value.

## Calculator Preferences

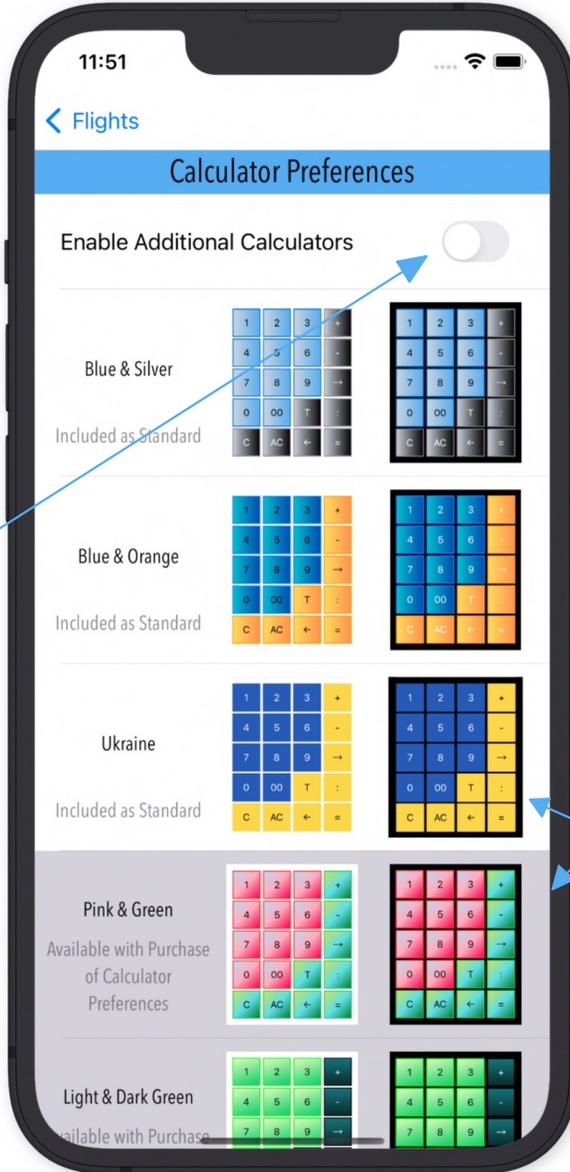
The Calculator Preferences view has a switch to enable or disable the two additional calculators and allows the selection of different calculator keyboard colours.

The default calculator in PilotCalc is an hours and minutes time calculator. Buying the Calculator Preferences in-app purchase unlocks access to a decimal time calculator and a basic arithmetic calculator.

If the Calculator Preferences in-app purchase has been made, this switch can be toggled to On or Off as required. When On, any of the three calculators will be selectable. When Off the calculator will remain locked to the currently selected calculator to avoid unintended changes.

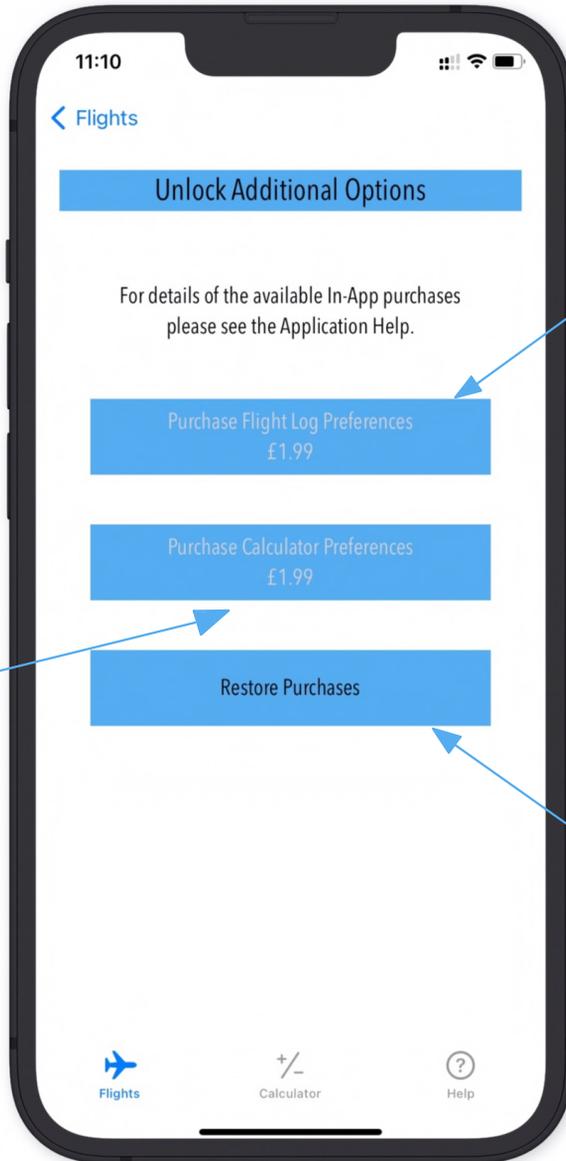
There are three free keyboard colour options and a further eight available with the Calculator Preference in-app purchase. A previous purchase of either Colour Pack automatically enables the Calculator Preferences.

Rows with a white background show available key colours, whilst rows with a grey background require the purchase of the Calculator Preferences in-app purchase.



## Unlock Additional Options

This view is used to buy in-app purchases or restore previous purchases.



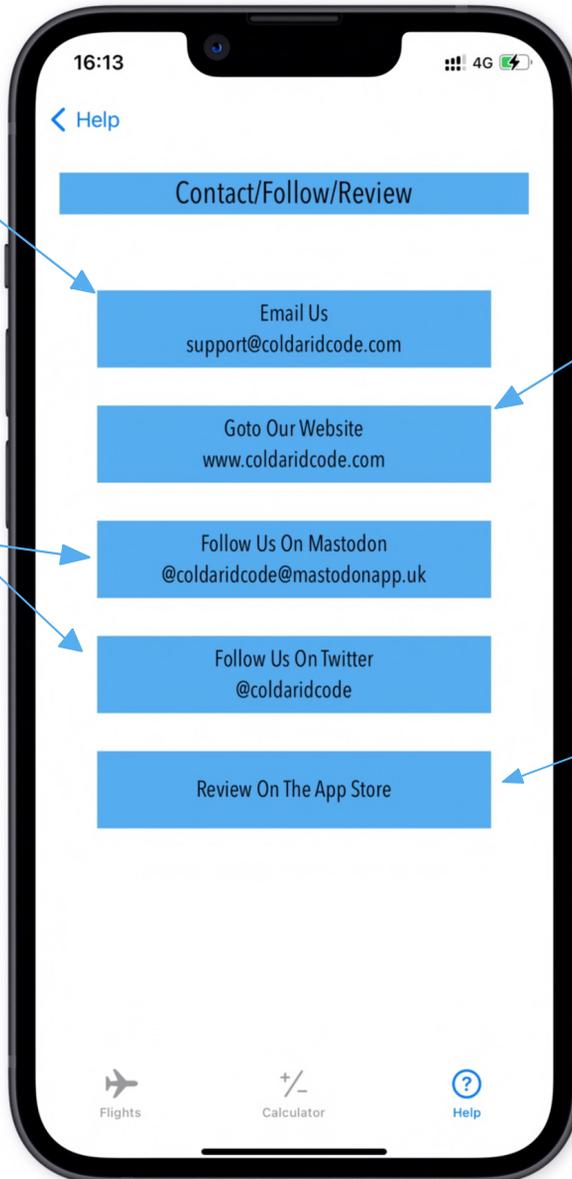
Greyed out labels indicate that this option has already been purchased. Note that this requires internet connectivity.

If the device is connected to the internet, current price for the in-app purchase is displayed.

This option is used to restore previously bought in-app purchases. Used, for example, if re-installing PilotCalc.

## Contact/Follow/Review

This view provides contact options for the team at Cold Arid Code, as well as a shortcut to leave a review for PilotCalc on the app store.



For questions or support, email is the best way of contacting us.

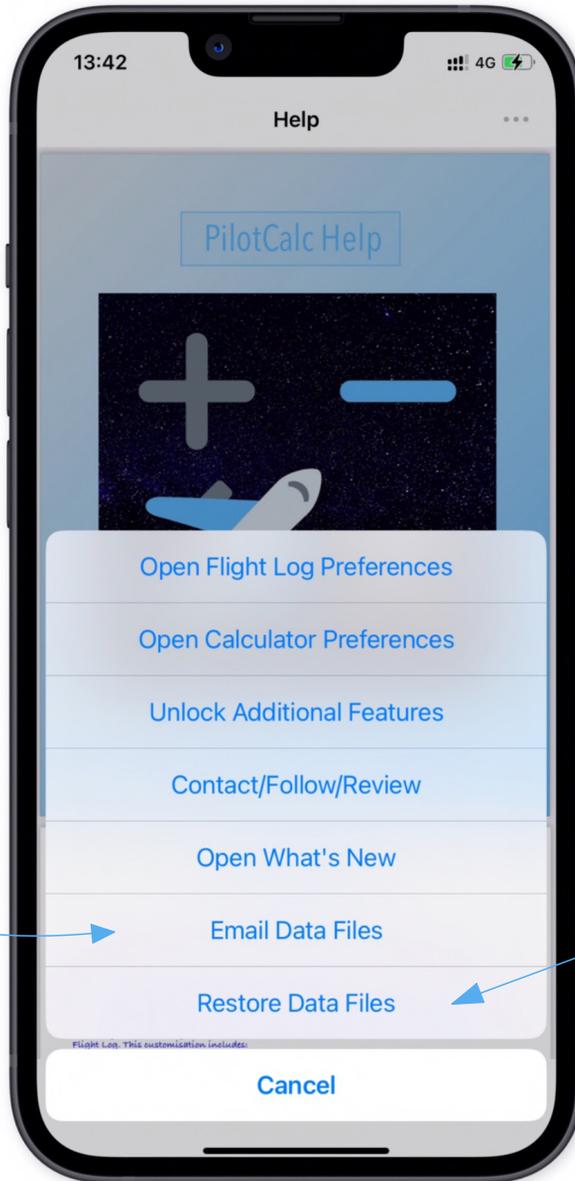
Our website has details on the Cold Arid Code apps and a feed from our Mastodon account.

We use Mastodon & Twitter to publish upcoming changes.

We would really appreciate a review (preferably a good one) on the app store.

## Backup & Restore

The menu found on the Help Tab offers the option to backup key data files to email and restore them at a later date.



This option will attach the application data files to an email as a form of backup. It can also be used to send files to Support for troubleshooting.

The files are named with a descriptive name followed by a dash then a date in year, month and day format and a suffix. The suffix is either .podat (data file) or .pobak (backup of the data file).

E.g.  
FlightData-230122.podat

This option enables the selection of one or more data files to restore. It is only necessary to restore the required files. The restore will overwrite the corresponding file(s) but will create a backup before doing so. The files are:

FlightData - this file holds the bulk of the flight information.

DutyDataA & DutyDataB - these files are only relevant where auto-calculated duty times have been overwritten, but if restoring these files the FlightData file must also be restored.

Preferences - this file contains the Flight Log preferences

FlightBackup - this file contains data from versions prior to v2.1.1. It cannot be directly restored but if required it can be sent to Support to be converted.

## What's New Version 2.0

A summary of the main changes in PilotCalc Version 2.0

### Version 2.0

- The two Flight Views from previous versions have been consolidated to a single scrolling view with improved stability.
- New fields have been added to enter the scheduled departure and arrival times.
- Time fields have been re-ordered and colour coded for improved useability.
- New PDF based help file introduced with inbuilt PDF reader.
- In-app purchases introduced to offer extended functionality, but all the features previously available in earlier versions of PilotCalc remain free of charge.
  - There are two Calculator Colour Packs available, each offering a selection of different keyboard colours. The default keyboard has been changed to Blue & Silver but the original Blue & Orange option is still available at no charge.
  - The Countdown Preferences purchase allows the creation of audible and/or background notifications, relative to the scheduled departure time, as well as customisation of the associated countdown colours.

## What's New Versions 2.0.1 - 2.0.3

A summary of the main changes in PilotCalc Version 2.0.1, 2.0.2 & 2.0.3

### Version 2.0.1

- Fix to include the in-app purchases that were inadvertently missed from the 2.0 release.
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### Version 2.0.2

- Fix for spurious post scheduled departure notifications.
  - Fix for incorrect countdown colour being displayed when entered off blocks time is after scheduled departure.
  - Corrections to the help file.
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### Version 2.0.3

- Added option to manually enter a date, to allow scheduling of future flights. Future dates disable the countdown until an appropriate time.
- On first run the app now opens to the Time Calculator and on subsequent starts, to the last used of the Flights and Time Calculator.
- Added a Review button to the What's New Popup.

## What's New Versions 2.0.4 - 2.0.5

A summary of the main changes in PilotCalc version 2.0.4 & 2.0.5

### Version 2.0.4

- Amended Flight Log scheduled date functionality to only clear future dates within twelve hours of scheduled departure. This is to avoid negative countdowns starting at midnight for late evening flights later in the day.
- Amended the clock function to default to the last used timezone rather than UTC.
- Fix for the date picker to ensure that it always defaults to the current date.
- updates to the help file to reflect functional changes.

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### Version 2.0.5

- Amended date functionality to always display a date, instead of clearing when countdown starts.
- Added 'right swipe' function to copy key flight details to a new row.
- Fix for countdown stopping after midnight, for overdue flights from the previous day.
- various date related bug fixes.

## What's New Versions 2.0.6 - 2.0.8

A summary of the main changes in PilotCalc Version 2.0.6 - 2.0.8

### Version 2.0.6

- Fix for occasional spurious notifications when flight details are updated.
- Fix for date picker initialising to current date, rather than saved date, when application is first re-opened.

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### Version 2.0.7

- Enables iOS copy functionality in Calculator history tape.
- Adds a new blue & yellow calculator key colour set in support of Ukraine.

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### Version 2.0.8

- Adds a copy button to the calculator to quickly save the contents of the history tape to the iOS clipboard.

## What's New Version 2.1.0 - 2.1.2

A summary of the main changes in PilotCalc version 2.1.0 - 2.1.2

### Version 2.1.0

#### General:

- The in-app purchases have been consolidated to Flight Log Preferences and Calculator Preferences. Previous in-app purchases have been transferred as appropriate.
- The 'What's New window can now be reopened from the ellipsis menu.
- A number of crash bugs have been fixed.
- Fixed a display issue affecting the unlock Additional Options screen on smaller devices.

#### Flight Log:

- Added new aircraft registration field.
- Added new duty time fields.
- Added new PDF report for flights.
- Added option to use block times instead of airborne times in the log time calculation.
- Added the option to display elapsed times in decimals instead of hours and minutes.

## What's New Version 2.1.0 - 2.1.2 (continued)

A summary of the main changes in PilotCalc version 2.1.0 - 2.1.2

### Version 2.1.0 (continued)

#### Calculator:

- Calculator History Tape is now saved between sessions.
- Added an arithmetic calculator.
- Added a decimal time calculator.
- Added automatic conversion between hours & minutes and decimals.

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### Version 2.1.1

- Fix for some rows not updating when switching between the decimal and hours & minutes Flight Log.

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### Version 2.1.2

- Fix for data format issue causing crash on startup after app update.

## What's New Version 2.1.3

A summary of the main changes in PilotCalc Version 2.1.3

### Version 2.1.3

- Added the ability to backup data files to email and restore them at a later date.
- Fix for an occasional crash caused by a missing value.
- Fix for duty time manual edits not being correctly restored when app is reloaded.
- Added 'Follow On Mastodon' button to the Contact/Follow/Review screen.
- Added occasional prompt for a review.
- Removed obsolete conversion code.

Thank you for downloading PilotCalc. Hopefully you found it useful. If you did, we would very much appreciate a rating and ideally a review on the App Store.

If you have a questions, suggestions or need further help, please email us at: [support@coldaridcode.com](mailto:support@coldaridcode.com)

Please also take a look at our website and/or follow us on Twitter for the latest information on our apps:

Web: [www.coldaridcode.com](http://www.coldaridcode.com)

Twitter: [@coldaridcode](https://twitter.com/coldaridcode)

