

Chai Air Times “advanced” online tool

Version beta 1.0

The online calculations were designed for their user friendliness for the general user. However, they are inadequate to deal with real time changes in flight routes. It was decided to provide a better tool to the advanced user. Although the new tool doesn't approach the capabilities of the Chai Air Times “Pro” program, it does allow for editing routes in real time, uploading routes, and obtaining zemanim for anywhere on the map. It also allows the user to follow the estimated airplane position, thereby getting an indication how far off the estimate is from the real position shown on the screen. The tool can be used offline, as well as online whenever wifi service is provided by the airline.

This instruction manual is purposely short and to the point since the application is meant for an advanced user.

Initial steps for defining a route

Step 1: Choose the departure and arrival airports from the drop down lists.

Step 2: Use the calendar tools to choose the departure and arrival dates and times. As the online time, one should use departure and arrival times at the gate.

Step 3: If Daylight Saving Time is in effect in the departure or arrival airport, check the checkboxes.

Optional: “Offline” maps can be substituted for the online Bing maps used a default. To use the “offline” maps, press the button.

Step 4: Edit the route

Method 1: Accept using the Great Circle Route by pressing the “Accept” button.

Method 2: Upload a flightaware.com “kml” file for a previous flight. At present, the flightaware.com files can be accessed by using their “graph” link, and then clicking on the “Google Earth kml” file button. This procedure is liable to change. In order to successfully upload a file, the departure and arrival airports in Step 1 must

match the departure and arrival airports in the kml file. This app will automatically read the actual departure and arrival times from wheels off to wheels on the runway. Although, these times are different than the times of departure and arrival from the terminal, unfortunately those times are not recorded in the flightaware “kml” file. So there is no choice but using the actual take-off and landing times. (The “Pro” program uses the actual take-off and landing times to develop a flight profile using different velocities along the route, but the online app is not yet capable of that advanced sort of calculation.)

Method 3: Click on the map to define way points. Undo points to edit the waypoints. This can be used to follow the path of the airplane in real time and thereby increasing the accuracy of the zemanim. Complete the flight path anything by pressing the “Complete the map” button. You can go back anytime to undo a way point and add more by pressing the “Undo” button and click again on the map to create a way point at the click point.

Note: If you want to change the entire route, or change the airports, etc., you must first use the “Erase” button to erase the last route you entered.

Zemanim

There are three types of zemanim you can obtain from this application. When a route has been completed, the zemanim window appears. There are three radio buttons that activate the three types of zemanim.

Time to: Click on the map to find how much time there remains at the click point to the desired zman entry.

Time at: Click on the map to calculate the zemanim for the click point. Since the time zone is only estimated based on the longitude, you can modify it by entering the desired time offset from Greenwich in the “time zone” text box and press the enter key on your keyboard. For example, New York is -5 when there is no Daylight Saving Time. If Daylight Saving Time is in effect, then the time one offset for New York is -4.

Zemanim for route: Clicking on this radio button will calculate the “Chai Air Time” zemanim for the route on the map. Markers will

will appear on the map showing where the zemanim occur along the flight path you entered. The default zemanim mode is elapsed time from departure in hours and minutes. If you want an actual time according to a certain time one offset, enter the time zone offset in the “time zone” text box and press the enter key on your keyboard.

Showing the position of the airplane

Press the “Show posit” button to show the position of the airplane. The marker showing the airplane’s position will move with time according to the average velocity determined from your entered data and route. Use this tool to indicate how accurate the route and calculation are with respect to the actual real time values you see in the airplane.

Many hours were invested to create this application for the web. Please donate to The Chai Tables to help us keep this tool a free web application. Please use the “Donate” button to send a contribution via PayPal.