Performance Planning in FOREFLIGHT MOBILE

3rd Edition
Covers ForeFlight Mobile v9.3 on iPad
# Performance Planning in ForeFlight Mobile v9.3

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Introduction

This pilot’s guide provides an overview of the Performance Planning features in ForeFlight Mobile. Performance Planning is available with the Performance Plus subscription plan for individuals, and the Business Performance plan for multi-pilot accounts. Visit www.foreflight.com/pricing to upgrade your subscription.

This guide mainly covers features that are unique to the Performance Plus plan, while touching on features that are available with other plans but are involved in the performance planning workflow. For information about other features in ForeFlight Mobile, please refer to the “Pilot’s Guide to ForeFlight Mobile” available in the app in Documents > Catalog > ForeFlight or at www.foreflight.com/support/pilots-guide/.

About Performance Planning

ForeFlight Performance Planning is a set of related features that provides advanced flight planning capabilities suitable to high-performance aircraft. Although designed with turboprop and jet aircraft in mind, pilots of any type of aircraft can benefit from the accuracy and speed of these capabilities, which drastically simplify the flight planning process while presenting the pilot with detailed performance calculations about all available routes.

Performance Planning includes a large selection of advanced aircraft performance profiles derived from manufacturer data and covering the full operational range of each aircraft, allowing for extremely accurate speed and fuel flow calculations. These calculations are done by ForeFlight’s AviationCloud engine, a next-generation flight planning technology that pulls-in current and forecast wind and temperature data as it computes route performance. AviationCloud also provides an “Autoroute” between any two airports anywhere in the world, including airport pairs with no recently-cleared ATC routes. The AviationCloud Autoroute is wind-optimized and computed in seconds, often delivering the best performance results for any city pair.

Contributing to the accuracy of these calculations are capabilities for payload and fuel management, allowing you to specify weights and fuel amounts that affect the performance characteristics of a given flight. These Performance-exclusive capabilities are available in the “Flights” view, which provides a form-based planning workflow for fast route entry, briefing, and filing. An advanced and printable Navlog can also be generated from the Flights view, providing detailed time, fuel, weight, and altitude information to assist inflight decision making.

Finally, Performance Planning allows ForeFlight users flying planes that use jet fuel to view their JetFuelX contract fuel prices within ForeFlight. JetFuelX is a free
online service that allows pilots to manage all of their fuel card memberships and compare contract fuel prices from multiple vendors, and request fuel releases from FBOs. As a standalone service JetFuelX is free for anyone to use, but with Performance Planning it is integrated with ForeFlight so pilots can plan their flights and find the best fuel prices in the same place.
Aircraft Performance Profiles

The advanced capabilities of ForeFlight Performance Planning begin with the aircraft. ForeFlight’s dedicated Performance team has assembled a library of advanced profiles for hundreds of aircraft models and variants. Each of these aircraft includes one or more ForeFlight Performance Profiles, which combine high-fidelity climb, cruise, and descent data for a given cruise model, such as “Max Speed” or “Max Range.” Using these performance profiles for flight planning will result in extremely accurate time and fuel flow calculations for any flight.
Updating Existing Aircraft After Purchasing Performance Plus

If you’re upgrading to the Performance Plus plan from another subscription plan, orange alert markers may appear next to some or all of your existing aircraft. These indicate that you need to select an aircraft type from our aircraft type database for those aircraft, since some of them might have ForeFlight Performance Profiles and other information associated with them.

Tap on an aircraft to enter the Aircraft Edit page, then tap Aircraft Type near the top to search for your aircraft type. Whatever type code you previously entered for that aircraft will autofill in the search field, so finding and selecting the correct model and variant should be easy. If your aircraft doesn’t appear in the list, you can also search by make and model.

If your aircraft type has ForeFlight Performance Profiles associated with it, the number of such profiles is indicated in blue text below the model and variant information. Tap on one of the aircraft type options to select it. If your aircraft has ForeFlight Performance Profiles, ForeFlight may prompt you to update certain data fields with new information. Tap “Fix” to accept the changes.
Adding New Aircraft

To add a new aircraft, tap the Plus button in the upper-right corner of More > Aircraft to enter the Aircraft Edit page. ForeFlight will immediately prompt you to enter a tail number and select an aircraft type by highlighting these fields in orange. After entering the tail number, tap Aircraft Type to search ForeFlight’s library of aircraft models. Use the search bar at the top to search by make, model, or type code.

Aircraft models that have ForeFlight Performance Profiles associated with them include two lines beneath the model indicating the specific variant and the number of preconfigured performance profiles available with that model and variant. Tap on an aircraft model to select it.

Aircraft models with preconfigured performance profiles also have preconfigured values for a number of fields in the Aircraft Edit page, including Glide Performance (typically only piston aircraft will have values for both Best Glide Speed and Best Glide Ratio), Altitudes, Weights, and Fuel information. These fields are auto-filled when you select an aircraft model that provides these data.

**IMPORTANT**: You should always carefully review any auto-filled values to ensure they match those of your own aircraft, especially the values for Basic Empty Weight, Total Useable Fuel, and Default Reserve Fuel. Default Reserve Fuel is not calculated for each flight, so you should set the value here according to your preference. Reserve fuel can be modified for individual flights without changing the default value while planning in the Flights view.

Before filing a flight plan with a new aircraft you will also need to input ICAO equipment codes in the Filing section and fill in applicable fields in the Dingy and Emergency sections. Information about these fields and what filing codes to select can be found the in the “Filing with ForeFlight Mobile” guide, available for download in the app in **Documents > Catalog > ForeFlight**, or online at [https://www.foreflight.com/support/filing/pdf](https://www.foreflight.com/support/filing/pdf).
Performance Profiles

Aircraft Performance Profiles provide the data to power ForeFlight’s performance calculations. There are three kinds of performance profiles that you can use in ForeFlight:

- ForeFlight Performance Profiles, which are provided by ForeFlight for hundreds of aircraft models
- By-altitude profiles, which allow you to input detailed performance data for all altitudes in any aircraft’s operational range.
- Basic profiles, which allow you to input only a single cruise speed and fuel flow to be used for all altitudes.

ForeFlight customers who purchase the Performance Plus plan have access to all three types of profiles; customers on other subscription plans can only use basic profiles.

Tap “Performance Profiles” while viewing an Aircraft’s details to view all the performance profiles for that aircraft, whether provided by ForeFlight or built by the user.

ForeFlight Performance Profiles

Performance Plus customers have access to ForeFlight Performance Profiles for hundreds of different piston, turboprop, and turbofan aircraft models. These performance profiles contain high-fidelity performance data and are built by ForeFlight’s dedicated Performance team, using manufacturer-sourced data to ensure the most accurate performance calculations for every flight. The climb, cruise, and descent models contained in each profile are defined for multiple weights, altitudes, and temperatures, providing accurate speed and fuel flow data for all conditions.

For most of the aircraft models that come with ForeFlight Performance Profiles, multiple profiles are available, corresponding to different cruise speed/power settings. The names of the profiles reflect these settings (e.g. Max Cruise Power, Long Range Cruise, M0.83, 55% Best Econ, etc.). The smaller lines below each profile name
indicate the climb and descent models used for the profile. Currently, all ForeFlight Performance Profiles for a given aircraft use the same climb and descent models, with only the cruise models varying between different performance profiles.

Tap on a ForeFlight Performance Profile to see an illustrated breakdown of the climb, cruise, and descent models for that performance profile. Although these models are not editable by the user, it is possible to adjust the cruise model to better fit your aircraft’s actual performance using the Cruise Speed and Cruise Fuel Flow adjustment sliders.

**NOTE:** The model adjustment sliders should only be used after you have identified consistent deviations between the performance results predicted by ForeFlight and your aircraft’s actual results. We recommend flying at least ten flights with the same performance profile while closely tracking actual fuel burn and flight times. After each flight, compare actuals to the time and fuel burn predicted by ForeFlight. If the actuals differ from the predicted values in a consistent and predictable fashion (such as actual fuel burn is always ~3% greater than predicted), use the model adjustment sliders for that cruise profile to adjust the ForeFlight model closer to your aircraft’s actuals (in the previous example, you would move the Cruise Fuel Flow Adjustment slider to +3%). Repeat this process on subsequent flights until the performance results predicted by ForeFlight align with your aircraft’s actual results.

Tap “Make Default” to set that performance profile as the default for flight planning with that aircraft.
Custom Performance Profiles

If your aircraft type does not have any ForeFlight Performance Profiles associated with it, you can create custom performance profiles to use instead.

By-Altitude Profiles

By-altitude profiles allow you to enter performance data for every altitude in your aircraft’s operational range, and can be set up on ForeFlight’s web application (plan.foreflight.com). Once built, you can use by-altitude profiles for flight planning in the mobile app just as you would ForeFlight Performance Profiles. See By-Altitude Profiles for detailed instructions on setting up by-altitude profiles.

Basic Performance Profiles

The third and simplest type of performance profiles are basic profiles. These allow you to specify only one value for cruise speed and one value for cruise fuel flow to be used at all cruise altitudes. These basic profiles result in less accurate performance calculations compared to the previous types of performance profiles. Customers who purchase the Performance Plus plan are strongly encouraged to set up and use by-altitude profiles instead of basic performance profiles if ForeFlight Performance Profiles are not available for their aircraft type.
Performance Planning with Flights

The Flights view brings together the most important planning tools in ForeFlight in a sleek, form-based layout that allows for fast and efficient flight planning, briefing, and filing. The top-to-bottom workflow follows a logical progression from inputting airports, selecting an aircraft and performance profile, defining a route and altitude, entering payload and fuel details, reviewing weight checks, then filing the flight plan. Only ForeFlight customers who have purchased the Performance Plus plan can access the Payload, Fuel, and Weight Verification sections.
About the Flights View

You can send a route to the Flights view from the Maps view using the Send To button in the lower-right corner of the Maps view’s Flight Plan Editor. This will autofill all fields with the information you entered on the Maps view other than payload and fuel details, which can only be entered on the Flights view. You can send a route from the Flights view to the Maps view using the Send To button in the upper-right corner of the Flights view. Tap the Plus button above the Flights list on the left to create a new flight.

At the top of the Flights view is the Route Performance Summary. This is where performance calculations for the flight are displayed, showing route distance (Dist), estimated time enroute (ETE), estimated time of arrival (ETA, in the destination airport’s timezone), inflight fuel consumption (Flight Fuel), and the average head/tailwind component over the entire route of flight (Wind). These performance results are recalculated every time a change is made to any part of the Flights view, but you can also manually refresh the performance summary by tapping the “Refresh” button just below the Wind value - this is useful for incorporating the most recent wind and temperature forecasts if the performance results have not been recalculated in a while. The time since the most recent recalculation is shown on the left below the Distance and ETE values.

Overview Section

Planning a flight in the Flights view begins with the Overview section. This is where you can input your departure, destination, and alternate airports for the flight, and set your estimated time of departure. When you add an alternate airport, ForeFlight calculates the fuel required to reach the alternate and adds it to your total fuel for the flight. This calculation is based on a direct route from your destination airport to the alternate, using the same performance profile as the rest of the flight and a cruise altitude appropriate to the distance to the alternate.
Aircraft Section

The Aircraft section allows you to select an aircraft and performance profile for the flight. If you’ve designated an aircraft and performance profile as defaults then they will be automatically selected when you create a new flight. All your aircraft and performance profiles are fully editable from the Flights view by tapping the Edit/View buttons next to each. You can also create new aircraft from the Flights view by tapping the Plus button when viewing the aircraft list, and create new performance profiles by tapping “Add Custom Performance Profile”.

**NOTE**: only basic performance profiles can be created on the mobile app - use ForeFlight on the web to build by-altitude profiles that you can then use in ForeFlight Mobile.

Route Section

The Route section is where you enter a route and altitude for a flight. You can tap in the text field to enter a route manually, or tap “Routes” in green to open ForeFlight’s Route Advisor. The number of routes identified by Route Advisor is shown in parentheses next to Routes.

An interactive “Route Preview” built into the Route section allows you to see your route on a map. You can pan and zoom the map using two fingers at the same time, and tap the Zoom to Route button in the bottom-left of the map to return to a full view of the route.
**Route Advisor**

Route Advisor groups routes under section headers based on what kind of route they are or their source. Routes shown include the AviationCloud Autoroute, ATC Cleared routes, Preferred routes, TEC routes, and Airway routes. ForeFlight calculates performance results for every route shown (including flight time, distance, and flight fuel) and displays them on the right, allowing for quick comparisons between routes.

Route Advisor also includes a Route Preview showing the paths of every route on an interactive map. Tap on a route in the list to highlight it on the map. This Route Preview is also interactive using two-finger pan and zoom.

**AviationCloud Autoroute**

The AviationCloud Autoroute is a wind- and temperature-optimized route that is generated in real time for any airport pair in the world. Using ForeFlight’s advanced AviationCloud flight planning technology, the route takes into account your selected aircraft, performance profile, and current and forecast conditions along your route of flight, providing a file-able route for flights between even the smallest and most remote airports. Because it incorporates the most recent environmental data in constructing a route, the AviationCloud Autoroute will frequently offer the best performance results out of all the routes listed. The AviationCloud Autoroute is provided only for Performance Plus subscribers.

If the altitude suggested by the AviationCloud Autoroute is different from your aircraft’s default altitude, a popup will prompt you to update the flight’s altitude when you select the Autoroute. If you already selected an altitude using Altitude Advisor, the AviationCloud Autoroute will use that altitude for constructing a route.

**ATC Cleared Routes**

Following the AviationCloud Autoroute is the list of ATC cleared routes (if the airport pair has any cleared routes), in reverse-chronological order based on which route was most recently cleared by
ATC. These routes provide two additional lines of information below the route string. The first line shows the departure time of the most recent flight cleared for that route, followed in parentheses by the number of times that route has been cleared by ATC in the past year. Frequently filed routes will often say “Tomorrow”, indicating that the most recent clearance for that route was given for a flight departing tomorrow. The second line includes information about the type(s) of aircraft cleared to fly that route (such as piston, turboprop, or jet), and the altitude or range of altitudes for which the clearance was given.

**Eurocontrol Route Validity**

For any route that passes through Eurocontrol airspace, Route Advisor will evaluate the route against Eurocontrol’s complex system of route constraints and display a “Eurocontrol Valid” or “Eurocontrol Invalid” label beneath the route. A second validity check is also performed when you file the route to catch any validation issues that may have been raised by changes you made to the flight after selecting the route.

![Route Advisor](image)

*Note*: Although Route Advisor will evaluate the validity of any route that intersects Eurocontrol airspace, only intra-European flights may be filed from within ForeFlight. **Do not attempt to file intercontinental flights through ForeFlight.**
Altitude Advisor

Altitude Advisor makes it easy to compare altitude options for your flight. When you create a new flight, the altitude is automatically set to your aircraft’s default cruise altitude. Open Altitude Advisor to review other altitudes. The highest altitude shown is based on the value for your aircraft’s maximum ceiling altitude.

All altitude options are evaluated by ForeFlight’s planning engine and performance results are shown next to each one, including the average head/tailwind component over the entire route, which is color-coded red or green; total flight time; and inflight fuel usage. If performance results are not shown for a given altitude (eg: “-----”) it means that your aircraft cannot achieve the desired cruise speed quickly at that altitude, due to warmer than standard temperatures, payload/fuel weight, a cruise speed that is faster than can be achieved at that altitude, or a route too short to achieve that altitude.

The buttons along the bottom of Altitude Advisor allow you to filter the altitudes shown. The VFR/IFR buttons on the left filter the altitudes to those permissible for the selected flight rules. The Westerly/Easterly/All buttons on the right filter altitudes to those that are fileable based on your flight’s direction. ForeFlight will automatically filter this list to only show relevant altitudes as you make changes to a flight.

Payload Section

The Payload section allows you to input basic weight information for people and cargo, used by ForeFlight to evaluate fuel requirements and perform weight checks against your aircraft’s structural weight limits. Tap on the blue numbers to adjust...
the values for number of people, the average weight of each person, and the total weight of cargo. The default value for the number of people is either one or two, based on the minimum crew requirement for your aircraft model. The starting default value for average person weight is 200 pounds, but changing this value for any flight will update the default to the new value.

**NOTE**: The Payload section is not tied to ForeFlight’s Weight & Balance tool, although both of them involve inputting people and cargo weights.

**Fuel Section**

The Fuel section provides some of the most powerful flight planning capabilities available with Performance Planning by allowing for detailed fuel management and automated fuel calculation using the Fuel Policy selector.

<table>
<thead>
<tr>
<th>FUEL</th>
<th>Minimum Fuel Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALLOCATION</td>
<td>GAL</td>
</tr>
<tr>
<td>Flight Fuel</td>
<td>1,086</td>
</tr>
<tr>
<td>Start/Taxi Fuel</td>
<td>22</td>
</tr>
<tr>
<td>Fuel to Destination</td>
<td>1,044</td>
</tr>
<tr>
<td>Fuel at Landing</td>
<td>486</td>
</tr>
<tr>
<td>Alternate Fuel</td>
<td>274</td>
</tr>
<tr>
<td>Reserve Fuel</td>
<td>212</td>
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<tr>
<td>Extra Fuel</td>
<td>0</td>
</tr>
<tr>
<td>Total Fuel at Start</td>
<td>1,552</td>
</tr>
</tbody>
</table>

**Fuel Policies**

The Fuel Policy selector at the top of the Fuel section provides a number of options for calculating total (“block”) fuel that will be in the aircraft’s fuel tanks at engine start. Some policies require no additional input, and some allow you to specify certain values that will factor into the calculation.

- **Minimum Fuel Required** - calculates the minimum amount of fuel needed to land at the destination with legal reserves and alternate fuel (if an alternate airport is specified for the flight). Requires no additional input from user.
• Extra Fuel - adds a new field below the Fuel Policy selector where you can specify a fuel amount in addition to the minimum fuel required for the flight.

• Maximum Fuel - calculates the maximum amount of fuel that can be loaded before exceeding any structural weight limit or the limit for total useable fuel configured for the aircraft. Requires no additional input from user.

• Landing Fuel - adds a field below the Fuel Policy selector where you can specify a fuel amount to have in the tanks upon landing at your destination; ForeFlight will then calculate the total fuel required at engine start to achieve that value. The fuel amount entered must be greater than the sum of reserve and alternate fuel (if an alternate airport is specified).

• Manual Fuel - adds a field below the Fuel Policy selector where you can specify the total amount of fuel in the tanks at engine start. The fuel amount entered must be greater than the minimum amount of fuel required to land at the destination with legal reserves and alternate fuel (if an alternate airport is specified).
Fuel Allocation

The Fuel Allocation table below the Fuel Policy selector shows how the total amount of fuel is allocated during the flight, in both gallons and pounds of fuel. The primary fuel unit (gallons or pounds) configured for the aircraft appears in the far-right column, and the secondary unit in the column next to it.

Fuel Allocation is divided between Flight Fuel, which is the total amount of fuel burned to reach the destination, composed of Start/Taxi Fuel and Fuel to Destination; and Fuel at Landing, which is the total amount of fuel remaining in the tanks upon landing at the destination, composed of Alternate Fuel, Reserve Fuel, and Extra Fuel. You can collapse and expand these categories by tapping the carets to the left of each category row.

The default values for Start/Taxi Fuel and Reserve Fuel come from the values set in the Aircraft Edit page, but you can change either value for a single flight by tapping the blue numbers in the far-right column. Changing these numbers will not affect the default values, which can only be changed from the Aircraft Edit page.

At the bottom right of the Fuel Allocation table is the value for Total Fuel at Start, as calculated from the sum of Flight Fuel and Fuel at Landing, beneath which is the value for total usable fuel configured for the aircraft. The amount of additional fuel available before reaching the limit of total usable fuel is shown on the left, beneath “Total Fuel at Start”. If you exceed the value for total usable fuel during planning, the numbers for Total Fuel at Start turn red, and the amount of fuel that is over the limit replaces the value for additional fuel available beneath “Total Fuel at Start”.

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</thead>
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<tr>
<td>Landing Fuel (p)</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>ALLOCATION</th>
<th>GAL</th>
<th>LBS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flight Fuel</td>
<td>1,092</td>
<td>7,373</td>
</tr>
<tr>
<td>Start/Taxi Fuel</td>
<td>22</td>
<td>150</td>
</tr>
<tr>
<td>Fuel to Destination</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fuel at Landing</th>
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</thead>
<tbody>
<tr>
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<td>Reserve Fuel</td>
<td>212</td>
<td>1,430</td>
</tr>
<tr>
<td>Extra Fuel</td>
<td>253</td>
<td>1,710</td>
</tr>
</tbody>
</table>

Total Fuel at Start: 1,833 pounds available / 2,096 / 14,150
Weight Verification Section

The last section of the Flights view planning form is Weight Verification. This allows you to review the total weight of the aircraft and compare it to important structural weight limits to see how much additional weight capacity is available for the flight. The structural weight limits come from the values configured in the Aircraft Edit page, and are shown in a smaller font directly below the actual weight value based on what you’ve configured for payload and fuel. The amount of fuel available before reaching each limit is shown on the left below the name of each limit.

Between the rows showing weight limits are rows of lighter text indicating how the aircraft’s total actual weight changes between each limit, either from adding fuel before engine start, or burning fuel during taxi/takeoff and during the flight itself. You can collapse these rows by tapping the carets to the left of each weight limit name.

If any weight limit is exceeded while planning your flight, the values for total actual weight turn red, and the amount of weight that is over the limit replaces the value for additional weight available at each limit.

Errors and Warnings

The Flights view will display a number of errors and warnings to alert you of problems that might come up while planning a flight. These appear as a red or orange banner above the Route Performance Summary - you can tap on the banner to view details for the errors or warnings. Errors are critical problems that may prevent ForeFlight from calculating performance results for a flight (such as not providing a valid performance profile for the aircraft), or may prevent the flight from being...
carried out safely (such as exceeding structural weight or fuel limits). Warnings represent less severe problems that may result in less accurate performance calculations (such as the ETD being too far in the future to incorporate wind effects for the flight), or that may prevent ForeFlight from verifying that weight and fuel amounts are within limits (such as not entering a basic empty weight for the aircraft).

**Add Next Flight**

If planning a multi-leg trip, use the “Add Next Flight” button at the bottom of the planning form to create a new flight that retains the most important details from the previous one, making it easy to plan consecutive trip segments. Add Next Flight sets the destination airport of the previous flight as the departure airport of the new flight, and sets the new flight’s ETD to 30 minutes after the ETA of the previous flight, if that time has not already passed. Add Next Flight preserves the first flight’s aircraft and performance profile, payload details, and fuel policy, though if the selected fuel policy requires user input (such as Extra Fuel, Landing Fuel, and Manuel Fuel) then the previous value will not be preserved when adding a next flight.
Navlog

The Flights view Navlog provides a detailed overview of your flight that can be printed out and referenced to aid inflight decision-making. You can view the Navlog by tapping the Navlog button in the top left of the Flights view.

The top of the Navlog provides quick reference to key information like ETE, block fuel, the full route string, and more. Beneath that are tables providing helpful information about each leg of the trip. The first table shows expected performance results for each leg, such as fuel remaining, leg time, distance remaining, and winds aloft information, including forecasted deviations from standard temperature. If you specified an alternate airport for the flight the same details appear for it in a short table below.
The next table compares winds aloft and performance results for the selected cruise altitude as well as bracketing nearby altitudes. Each altitude column provides total trip time and fuel burn in bold at the bottom, making it easy to evaluate multiple altitudes at a glance. Next is a small table with important frequency and runway information for your departure, destination, and alternate airports.

<table>
<thead>
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<th>FL 370 (ISA -50°C)</th>
<th>FL 390 (ISA -55°C)</th>
<th>FL 410 (ISA -59°C)</th>
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<td>ISA WIND (COMP)</td>
<td>ISA WIND (COMP)</td>
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| 3112m (10300) | 7974 lbs Avg wind comp: T29 | 3113m (10300) | 7985 lbs Avg wind comp: T32 | 3112m (10300) | 7964 lbs Avg wind comp: T35 | 3111m (10250) | 7321 lbs Avg wind comp: T34 |

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<td>118.5</td>
<td>119.5</td>
<td>118.925</td>
<td>618</td>
<td>12R / 30L</td>
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</table>
The bottom of the Navlog contains additional summaries of times, fuel, and weights, and also includes a section to record actual performance results for the flight. You can email the Navlog using the Send To button in the top right of the Flights view, and you can print it using a compatible AirPrint printer. Changing any details of your flight will automatically update the Navlog for the next time you view it, but you can also manually refresh it by tapping the refresh button in the bottom left.

Navlogs generated on the web will automatically become available on mobile as part of ForeFlight’s Sync system, and vice versa.

**Briefing**

You can request a pre-flight weather briefing by tapping the Briefing button next to the Navlog button. By default this will retrieve ForeFlight’s Graphical Briefing, which presents weather and NOTAM information in a page-based, graphical format that allows you to translate the coded text into a “plain text” form.

Filing a Flight Plan

Tap “Proceed to File” at the bottom of the screen to move to the Flights view filing form. Information is automatically copied over from the planning form into the relevant fields of the filing form, allowing you to simply review the information before filing. If you return to the planning form and make changes, a popup will prompt you to copy the updated information into the filing form next time you view it.

Refer to the “Pilot’s Guide to ForeFlight Mobile” for more information about filing a flight plan, or the supplemental guide “Filing with ForeFlight Mobile” for in-depth information about filing ICAO flight plans and configuring aircraft with the proper ICAO codes. Both guides are available in the app in Documents > Catalog > ForeFlight or at www.foreflight.com/support/faqs/guides-supplements/
Messages

If you enabled Flight Notifications before filing, ForeFlight will check for important flight alerts along your route, such as AIRMETs and SIGMETs, TFRs, and runway closure notices. ForeFlight will start searching for and displaying these alerts two hours before before your estimated time of departure, while connected to the internet. The alerts will appear in the Messages tab in the top right of the Flights view, and a notification bubble showing the number of new alerts will appear on the Flights view tab at the bottom of the screen. Tap on Messages to view a summary of all the alerts, and tap on an alert to see details about it. Use the Next and Previous buttons to move between the alerts.
Performance Planning with Maps

The Maps view includes many, though not all of the Performance-based planning tools found in the Flights view, and also includes unique capabilities such as Procedure Advisor that make it ideal for visual flight planning.

The capabilities for selecting an aircraft, selecting a performance profile, setting an ETD, and using the Route and Altitude Advisors can all be found as buttons on the Maps view Flight Plan Editor (shown above). However, the Maps view lacks the additional planning features that Performance Plus customers can access in the Flights view, including the Payload, Fuel, and Weight Verification sections, as well as other features like the printable Navlog and Graphical Briefing. Tap the Send To button in the bottom-right corner of the Flight Plan Editor and tap Flights to send the currently-entered route to the Flights view. All details about the flight that have been entered on the Maps view will be copied over to the Flights view.

You find more details about planning with the Maps view in the “Pilot’s Guide to ForeFlight Mobile”, available in the app in Documents > Catalog > ForeFlight or at www.foreflight.com/support/pilots-guide/.
Performance on the Web

ForeFlight on the web includes almost all of the advanced flight planning capabilities that ForeFlight Performance brings to the mobile app, plus some features that are web-exclusive. Login to the web application from ForeFlight’s home page, or at plan.foreflight.com.

Aircraft on the Web

ForeFlight on the web allows you to view, edit, and create new aircraft using ForeFlight’s aircraft type database and advanced performance profiles. Although the interface is different, every data field that you can access on the mobile app can also be accessed on the web.

The aircraft type field on the right allows you to search for your aircraft by make, model, or type code, and just like in the mobile app, aircraft models with ForeFlight Performance Profiles include variant information beneath the model name and the number of preconfigured profiles below that. Selecting a model with performance profiles will auto-fill the fields for weight, fuel, altitudes, and glide performance. As with the mobile app, be sure to carefully review these data to confirm their accuracy with regard to your own aircraft. You can also enter filing, dinghy, and emergency
information below that. Click Save in the bottom right after making any changes to save them.

Click Performance Profiles to view the performance profiles configured for that aircraft, and click Details next to any ForeFlight Performance Profile to view the climb, cruise, and descent models, and to access the model adjustment sliders for cruise speed and cruise fuel flow.

By-Altitude Profiles

Click “Add Custom Profile” to see the one major difference between Performance Planning on the mobile app and on the web. In addition to basic profiles, the web interface allows you to create by-altitude profiles for your aircraft. These are useful if a preconfigured performance profile is not available for your aircraft model, as they allow you to input detailed performance data for every altitude in your aircraft’s operational range, offering far greater accuracy than basic profiles.

The performance data you enter here should be available in your aircraft’s POH, but you can also use actual performance data collected from real flights if there is a significant difference from the book values.

Enter low- and high-altitude fuel flow data for the climb and descent models, then scroll down to the cruise model table. The minimum requirement is to enter data for the lowest and highest altitudes in the table, the latter being defined by the aircraft’s maximum ceiling. Beyond that you can enter data for whatever intermediate altitudes you want. ForeFlight uses a linear scale to calculate performance data for altitudes
that you don't fill in, so filling in more altitudes will result in more accurate
calculations. For each altitude that you fill in, you must enter values for all five fields;
entering partial data for any altitude will result in errors while using that profile for
flight planning.

NOTE: Some aircraft POHs provide different types of performance data in
staggered altitude intervals, such as providing cruise TAS and fuel flow for every
2,000’, but providing climb and descent IAS and rate of climb for every 5,000’. Since
all data fields (columns) for a given altitude (row) must be filled in for it to be valid,
the best solution for cases like these is to use a spreadsheet program to manually
interpolate the data sets so you can get complete data for each altitude you wish to
enter. You can then simply copy the values from the spreadsheet into the by-altitude
table.

Click Save in the bottom right to save the by-altitude profile. You can then access
it during flight planning like any other performance profile.
Flights on the Web

In addition to setting up and editing aircraft, ForeFlight on the web allows you to plan flights using the same Performance Performance features that are accessible in the mobile app. Click the Flights tab on the left to edit an existing flight or start planning a new one.

Unlike the mobile app, the web application doesn’t make you choose between form-based and map-based planning - the Flights tab on the web includes both the planning form from the mobile Flights view and a fully-interactive map on the right, with the same layer and setting options that you have on the web’s Maps tab. Making route changes to either the form or the map will automatically update the other.

As with other aspects of ForeFlight on the web, any flight you create or edit on the web application is immediately synced to all the mobile devices on which you are signed in, allowing you to plan a flight on the web and pick it up seamlessly in ForeFlight Mobile on your iPad or iPhone before departure.
Navlogs and Graphical Briefings can also be created on the web. Click the Navlog and Brief buttons in the page header to view them, and use the refresh button in the bottom left to update them with new information. Click the Send To button in the bottom right to open the Navlog or Briefing in its own tab; from there you can print or save the HTML file by right-clicking on the page and selecting “Print...” or “Save As...” (these labels may vary depending on what web browser you're using).

Click File in the page header to move to the filing form. As in ForeFlight Mobile, you will be prompted to update the filing form with new information if you made any changes in the planning form. Once again, all the fields available in the mobile app are on the web as well. If you have “Mobile Flight Notifications” enabled when you file your flight plan, any flight alerts will appear in the Messages tab in the mobile app.
JetFuelX Prices in ForeFlight

ForeFlight Performance Planning also provides the ability to link a JetFuelX account with ForeFlight to see contract jet fuel prices inside the mobile app and on the web.

About JetFuelX

JetFuelX is a free online service allowing users to manage their fuel card memberships, view and compare contract fuel prices for all airports offering them, and request fuel releases from FBOs. All ForeFlight customers automatically have accounts with JetFuelX - simply sign in at portal.jetfuelx.com using your ForeFlight username and password and begin adding fuel cards. Our JetFuelX tutorial videos walk through the process of account setup and using the service; follow this link to view them in ForeFlight’s Video Library.

Linking ForeFlight and JetFuelX

For customers who purchase the Performance Plus plan, linking their JetFuelX account to ForeFlight is easy. After signing in to JetFuelX, click “Settings”, then “My Profile” in the top right of the page. Underneath the Overview section is a section titled “ForeFlight” - click “Link ForeFlight Account” to begin the linking process.

Enter the username and password of the ForeFlight account you want to share jet fuel prices with, click “Login”, then click “Authorize” to connect the two accounts. You can only link a JetFuelX account with one ForeFlight account, and vice versa, but the accounts do not need to have the same username or be otherwise connected.
Viewing JetFuelX Prices in ForeFlight

After linking the accounts you will be able to view JetFuelX prices inside ForeFlight by enabling the Jet A map layer. **NOTE:** due to how ForeFlight retrieves and caches fuel prices, it may take up to an hour for JetFuelX prices to appear in the app if you viewed the Jet A map layer shortly before linking the accounts. You can tap the timestamp in the upper-left corner of the map to see when prices were last retrieved - after one hour they should update and JetFuelX prices will then be visible.

Airports with FBOs offering contract fuel based on your fuel card memberships will include a “JFX” label in addition to the price, and the price shown will reflect the lowest contract price available from any FBO or vendor at that airport. Tap on a price marker to view a summary of the FBOs at that airport - JetFuelX prices are shown next to each FBO offering them, beneath the retail prices for 100LL and Jet A. Tap on an FBO to see a more detailed breakdown of the fuel offerings, including retail and contract Jet-A+ prices, if the FBO offers them.

An FBO offering contract fuel will also have a JetFuelX tab in addition to the Info, Photos (if the FBO has uploaded any), and Comments tabs. This allows you to specify your aircraft and fuel amount for the flight - the aircraft shown here come from your JetFuelX account and are not associated with any aircraft in ForeFlight. Below this are Jet-A prices and price tiers for each vendor offering contract fuel based on your memberships. Make sure to check the dates above each price tier to see when those prices were valid - fuel vendor prices manually imported to JetFuelX in a CSV file will not update automatically and so may not reflect current prices. Tap the “i” button next to a fuel vendor to see any notes with additional information about pricing details or other

Performance Planning in ForeFlight Mobile v9.3
important charges, as well as miscellaneous information.

JetFuelX prices are also available in ForeFlight on the web, and are accessible in the same way as the mobile app. Turn on the Fuel: Jet A layer to see which airports offer contract fuel, and click any of the markers to see prices from each FBO and price tiers for each fuel vendor.

**NOTE:** The integration between ForeFlight and JetFuelX does not yet support requesting fuel releases from within ForeFlight on the web or in the mobile app - you must use the official JetFuelX site (portal.jetfuelx.com) to request a fuel release.

**Unlinking ForeFlight and JetFuelX**

If you want to disable the JetFuelX integration, you can do so in the same way that you enabled it from your JetFuelX profile page by clicking “Unlink ForeFlight Account”. This will immediately unlink the two accounts without further prompt, but it may take up to an hour for JetFuelX prices to disappear from ForeFlight. You can also unlink the accounts from ForeFlight on the web by going to **Account > Integrations**, and clicking “Disconnect” next to JetFuelX.
Performance Guide Change History

For v9.3 **NOTE: REQUIRES iOS 9.2 or LATER**

✧ The **Route section** and Route Advisor now include Route Previews that allow you to see your route and all route options on an interactive map.

✧ An **Add Next Flight** button at the bottom of the planning form makes it easy to quickly plan consecutive flights on a multi-leg trip.

✧ As part of ForeFlight’s support for intra-European flight plan filing, Route Advisor will now perform **Eurocontrol route validity checks** to indicate whether a route is fileable with Eurocontrol or not.

✧ The **Navlog** now syncs between web and mobile.

For v9.2 **NOTE: REQUIRES iOS 9.2 or LATER**

✧ Corrected typos

For v9.1 **NOTE: REQUIRES iOS 9.2 or LATER**

✧ Created “Performance Planning in ForeFlight Mobile” guide

✧ ForeFlight customers who purchase the **Performance Plus** plan can utilize advanced **ForeFlight Performance Profiles**, preconfigured for hundreds of aircraft models; incorporate **payload**, **fuel**, and **weight** details into their flight planning; receive highly-accurate **performance calculations** from ForeFlight’s next generation planning engine; create detailed **by-altitude profiles** for any aircraft on ForeFlight’s web application; and link their JetFuelX account to view their contract jet fuel prices inside ForeFlight