OPT

User Guide

Release Version 4.7

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Boeing

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Contents

Introduction

This document describes the current release of Boeing OPT, a calculation app that enables flight crews and ground personnel to complete real-time calculations based on current weather and runway conditions. This document describes the key features, system requirements, and known limitations of version 4.7.

Technical support

Boeing provides product support 24 hours a day, 7 days a week.

Online support: Submit a service request at MyBoeingFleet.com. On the service request form, select the product line Airplane, select the aircraft model, and enter `4611-00` in the **ATA** box.

Email: CISCustomerSupport@boeing.com

System requirements

OPT requires a mobile device that meets minimum specifications.

The minimum operating system for OPT on an iPad is iPadOS 13 and later.

For a Windows device, the minimum operating system for OPT is Windows 10 Version 1809. OPT has been tested and is compatible with Windows 10 May 2020 Update.

Devices supported

OPT is supported on many commonly used devices that run on the minimum operating systems.

Deployment considerations

Boeing OPT for the iPad is released through the App Store. Go to the App Store to download the app. The app comes with demonstration data for a FLYBOEING configuration.

You can download only one version of the app to your device at a time.

OPT requires 1 GB of available storage capacity.

⚠ **Important:** Before you update to the new version, force-close the previous version of OPT.

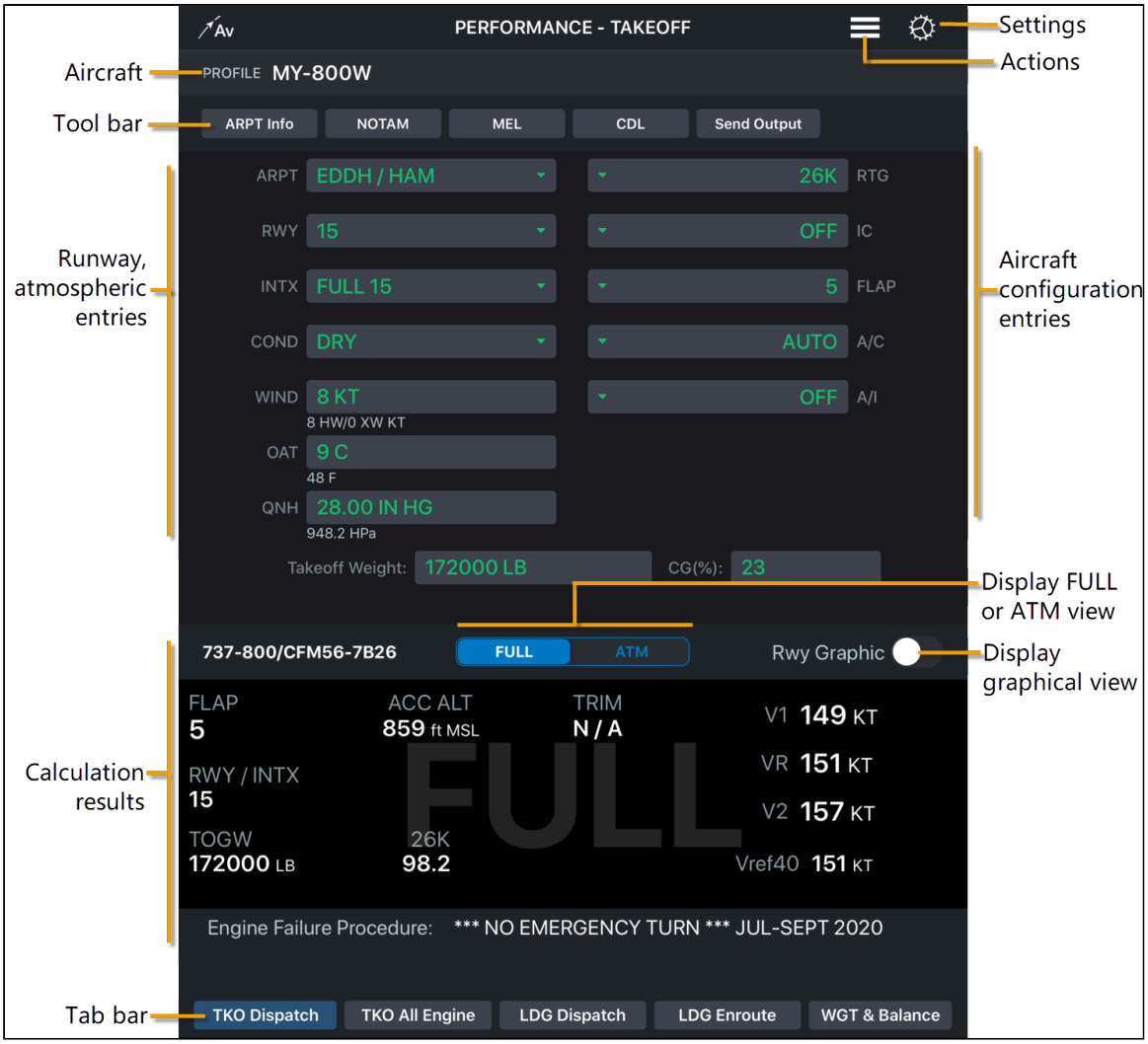
Connectivity considerations

OPT requires a reliable Wi-Fi or cellular connection to download updates. An internet connection is not required to perform calculations.

OPT overview

Depending on how your administrator set up the app, OPT opens on the **TKO Dispatch** tab or an aircraft selection menu.

From the **Tab bar**, you can navigate to other types of calculations. Each tab includes the **Tool bar**. More app functions are available from the **Actions** and **Settings** buttons.



Note: OPT clears your inputs after a period of inactivity, usually 180 minutes. Your administrator might set a different number of minutes.

Takeoff calculations

Using OPT you can complete takeoff performance calculations in **Dispatch** or **All Engine** mode, depending on how your administrator has configured the app.

Your company configures OPT for its operations, so the values that you see on your device might be different from what is shown here. OPT might also be configured to receive data from the flight management computer (FMC). In this case, some data is filled in automatically.

Calculating takeoff performance in Dispatch mode

You calculate takeoff performance from the **PERFORMANCE - TAKEOFF** page. By default, OPT opens on this page in **Dispatch** mode. On this page, you describe airport and environmental conditions, aircraft configurations, and takeoff weight.

About this task
Available inputs and outputs can differ based on how your administrator has setup the app for your company.

Procedure
1. Tap **TKO Dispatch**.
2. Tap the **ARPT** box and tap the origin airport.
3. Tap the box next to each data element and select an entry from the menu.

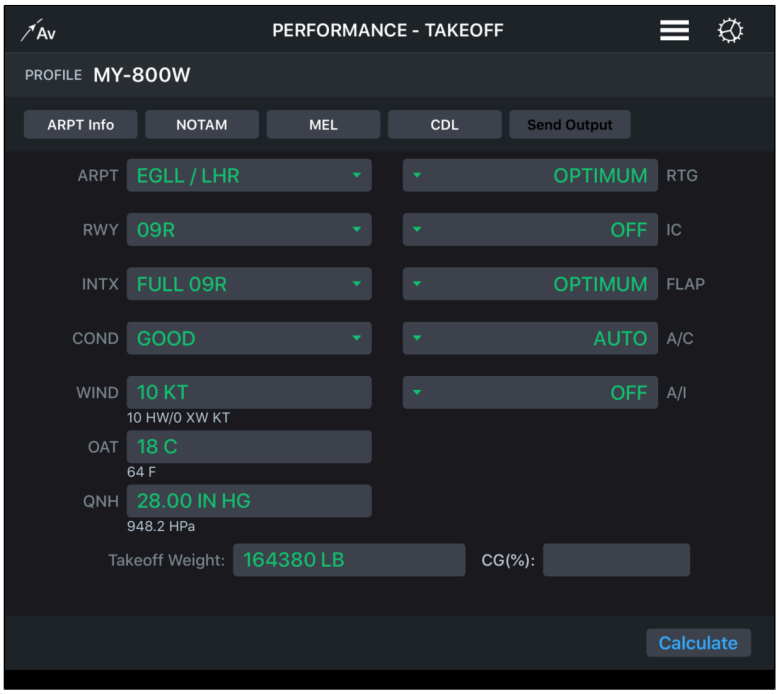
   When the boxes are completed, the **Calculate** button becomes blue.
4. In the **TOW** box, enter the actual or planned takeoff weight.

   You can enter the weight in either ones or thousands (102500 or 102.5).

   OPT calculates both maximum thrust and assumed temperature based on this weight. If the weight exceeds the performance-limited maximum takeoff weight, the app displays an error message during the calculation and shows the maximum weight. When you return from the **Weight & Balance** page, the app populates this box with the takeoff weight from that page.
5. In the **ZFW** box, enter the zero-fuel weight of the aircraft.

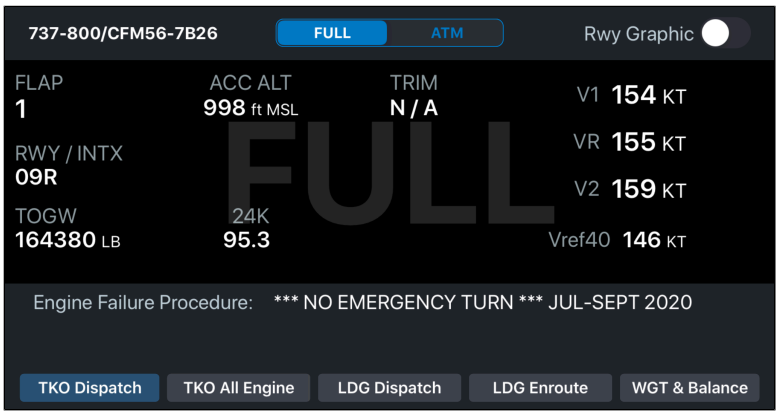
   This box might not be available because of administrator configuration, or the app doesn't need this information based on the aircraft.
6. In the **CG(%)** box, enter the center of gravity.

   This box might not be available because of administrator configuration, or the app doesn't need this information based on the aircraft.



7. Tap **Calculate**.

   The app shows the results. A watermark describes the view—either the full-thrust (**FULL**) or assumed-air-temperature (**ATM**) view. By default, the results first display in **ATM** view. Results display in **FULL** if no **ATM** is found.

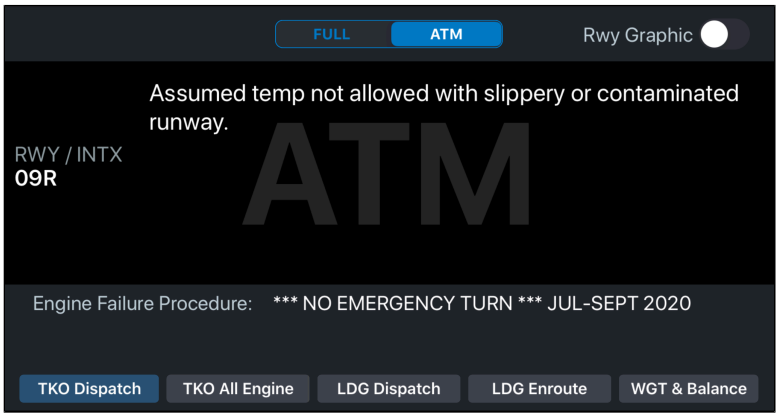


   If you enter the planned takeoff weight, OPT calculates all required parameters for both the maximum takeoff thrust and best assumed temperature cases.

   If you don't enter the takeoff weight (TOW), OPT calculates the maximum takeoff weight for the runway, or runway intersections, that you selected.

   When the app returns more than one page of results, a series of dots appears below the results. You can swipe through the pages of results, in either **FULL** or **ATM** view. The runway and intersection you're viewing appears on the left side of the results section.

   If the app is unable to calculate results, it displays an error message. You can make any changes, if needed, and run your calculation again.

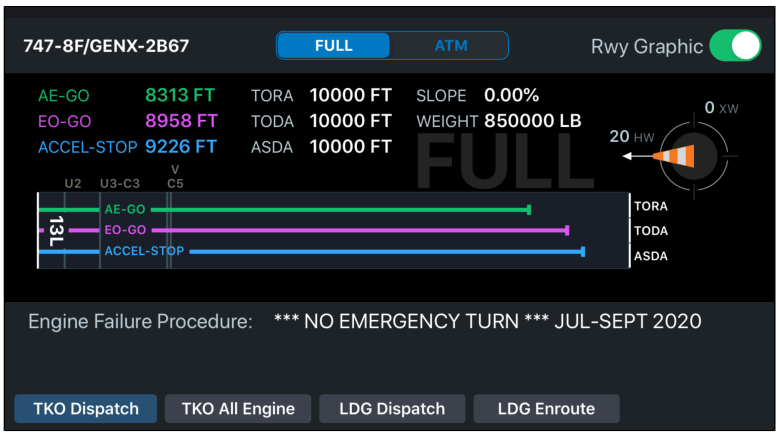


8. To switch between the full-thrust and assumed-air-temperature views, tap **FULL** or **ATM**.

   At first, the app shows the *ATM* results for the first runway and intersection listed.

9. To show the graphical representation, set **Rwy Graphic** to ON.

   The app displays the runway graphic, including the wind speed and direction. You can display this graphic in either the **FULL** or **ATM** view.



Related information

Entries for takeoff calculations (on page 9)

Calculating takeoff performance in All Engine mode

You calculate takeoff performance from the **PERFORMANCE - TAKEOFF** page. In **All Engine** mode, you can calculate the all-engine climb capability following takeoff. This capability includes distance-to-height or height-at-distance calculations. Your company configures this option in OPT.

About this task

Note: As a best practice, complete takeoff calculations in **Dispatch** mode before completing them in **All-Engine** mode. When you complete the **Dispatch** page, the app automatically transfers values from the **Dispatch** page.

Procedure

1. Tap **All Engine**.
2. To change the origin airport, tap the **ARPT** box and select the airport.
3. Tap the box next to each data element and complete the entry.

Note: If you start calculations on the **TKO All Engine** tab, the only runway condition available is DRY. For other runway conditions, complete the calculation on the **TKO Dispatch** tab first, and then complete the **TKO All Engine** tab. This action transfers the values and the required distances needed for OPT to compute the all-engine gradients for the runway condition.

4. Tap **AEG**.

   This box might not be available because of administrator configuration. From this box, you can manually enter up to three gradient requirements, which the app uses to draw the Gradient Requirements line in the climb graph.

a. Tap **Enter Gradient**.

   The app displays the **All Engine Gradient Requirements** window. It contains three rows.

b. To change the units the calculation uses, tap **Gradient Units** box and tap either **FT/NM** or **Percent (%)**.

c. In the **Requirement** rows, enter the gradient (in FT/NM or as a percentage) and the altitude.

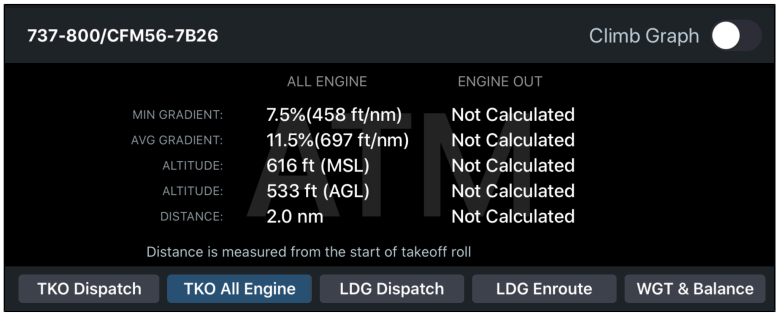
d. Tap **Done**.

After you calculate the results, switch **Climb Graph** to ON and view the gradient depictions.

5. Complete the boxes in the **CLIMBOUT GRADIENT** section:
   - **Climb to**. Tap the box and enter either the altitude or distance of the climbout gradient.
   - **Accel Alt (AGL)**. Enter the all-engine acceleration height.
   - **Cutback At (AGL)**. Enter the thrust-reduction altitude. This box might be populated in your configuration.
   - **Engine Fail At**. Enter the engine-fail altitude or distance. This box might not appear in your configuration.

     If you calculate the gradient with the engine fail altitude or distance, OPT starts the takeoff segment using the all-engine profile and continues the flight profile until the engine failure altitude or distance, or the completion of the thrust time limit. If one of the conditions is met, the thrust is set to Maximum Continuous Thrust (MCT) until the end of the profile. The app doesn't allow an engine failure before the gear-up point.
6. When all the boxes are completed, tap **Calculate**.

   The page shows the results of the calculation.



The app shows the following values:

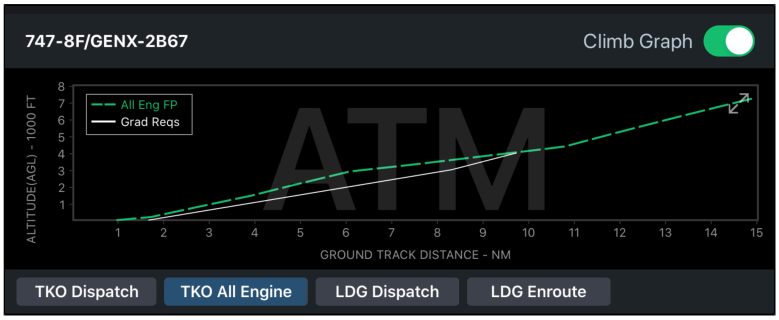
Minimum gradient	The minimum value encountered from the 35-foot point to the end of the profile.
Average gradient	The delta height/delta distance from the 35-foot point to the end of the profile.
Altitude (MSL)	The altitude above mean sea level.
Altitude (AGL)	The altitude above ground level.

Distance The distance to the end of the profile in nautical miles, from the start of the takeoff roll.

The results show a watermark, which indicates whether the calculation was a full-thrust calculation (**FULL**) or an assumed-temperature calculation (**ATM**). The page shows the view selected on the **TKO Dispatch** page.

7. To view a graph of the climbout gradient, set **Climb Graph** to ON.

   The graph shows the vertical profiles being used to generate the average and minimum gradients. The graph helps you determine compliance with all-engine SID climb gradient requirements.



Related information

Entries for takeoff calculations (on page 9)
About gradient calculations (on page 8)

About gradient calculations

On the **PERFORMANCE-TAKEOFF-ALL ENGINE** page, you can enter the climbout gradient.

The minimum gradient is the minimum value encountered from the 35-foot point until the end of the profile. The average gradient is the delta height/delta distance from 35-foot point to the end of the profile. The altitude mean sea level (MSL) and the altitude (AGL), which is the altitude above the airfield elevation, are also reported. Lastly, the distance to the end of the profile in nautical miles is reported which is measured from the start of the takeoff roll.

The all-engine profiles created to calculate the gradient requirements include the following assumptions:

- All engines are operating.
- Minimum thrust.
- The first takeoff segment is using an end condition of Gear Up Speed = V2 + X (for example, 20) at the takeoff rating that was selected.

  The value of *X* is taken from the default value that was specified in the Boeing Climbout Database (CNF file), which is typically the value specified in the *Flight Crew Training Manual*.
- The next segment to the cutback altitude or flap is done at the same takeoff rating chosen, then accelerate to 250 knots.
- The final acceleration segment is at the climb thrust that you selected in the **CLB** box.

Your OPT configuration might include the **Engine Fail At** box. The purpose of publishing the engine-out gradient is to determine if the gradient requirements stipulated for the planned standard instrument departure (SID) can be met even if an engine failure occurs. From this box, you can calculate the gradient using by entering the engine fail altitude or distance. OPT starts the takeoff segment using the all-engine profile and continues the flight profile until it encounters the engine failure altitude or distance, or until it finishes the thrust time limit. After this point, the thrust is set to the maximum continuous thrust (MCT) until the end of the profile. In the **Takeoff All-Engine** calculation, the app doesn't allow an engine failure before the gear-up point.

Related information

Calculating takeoff performance in All Engine mode (on page 5)

Entries for takeoff calculations

The first set of values you select when calculating takeoff performance describe the runway and atmospheric conditions. These are followed by entries that describe the aircraft configuration.

Note: Your administrator configures the options in OPT. You might not see all of the options listed here in your configuration.

Box	Description
ARPT	**Airport** search. When you tap this button, the app shows the **Search for Airports** box. To find an airport, type the airport identifier or airport name in the **Search for Airports** box. Then tap the airport from the search results. When you select a new airport, the app clears the wind, OAT, QNH, and weight &balance information.
RWY	**Runway**. This menu becomes available after you select the airport. Tap the runway that you want to use in the calculations. The app checks for existing departure and intersection information in the airport database. If your administrator configured OPT to include departure (engine-out) procedures for a specific runway, the app prompts you to select the procedure.
INTX	**Intersection**. If your administrator included intersection data in your airport database, and if intersection data is available for the selected runway, this button becomes active. Tap the intersection that you want to use in the calculation. Your administrator might configure an ALL option. When you select ALL, the app calculates takeoff information for the full-length runway and for each of the available intersections.
COND	**Runway conditions**. This menu shows the runway conditions that your administrator defined. Tap the option that best describes current condition. If you select STANDING WTR or SLUSH, the app prompts you to enter the depth of the water or slush.

Box	Description
WIND	Winds. Enter the wind speed in knots. You can enter either the wind component or the direction and magnitude. Your administrator might configure OPT to show the head or tailwind and crosswind components under the **WIND** box. If you enter the wind component, headwinds are positive and tailwinds are negative. If you enter wind direction and magnitude, use the format XXX/XX. For example, the entry `040/20` indicates a 20-knot wind coming from a magnetic heading of 40 degrees. If you enter only the headwind or tailwind magnitude, you can change the units—for example, `-5M` (meters). The app interprets this entry as a 5-m/s tailwind. The app interprets an entry of `5K` as a 5-knot headwind. You can also denote a headwind or tailwind by appending an `H` or a `T` to the wind magnitude—for example, `5T` for a 5-knot tailwind.
OAT	Outside air temperature. Enter the temperature. Your administrator configures the assumed units (Celsius or Fahrenheit), which the app shows after you enter the value. You can also select the units by entering `C` or `F` after the value. The defined units appear in the **OAT** box, and the alternate units appear below this box.
QNH	Barometric altimeter setting. Enter the QNH value as HPa (mb), or as inches of Mercury (Hg). The app checks the magnitude of your entry and converts it. The app interprets entries greater than 100 as HPa and anything less than 100 as inches Hg. Your configuration might show the converted values under your entry.
ATM	Assumed temperature. This box becomes available when you enter a weight in the **Takeoff Weight** box. Tap the box and enter the temperature. The app treats any number that is less than or equal to zero as a decrement from the maximum possible assumed temperature, which the app calculates. For a maximum assumed temperature calculation, enter a zero or `MAX`. The app considers any number greater than zero to be the assumed temperature that you want to use in your calculation. If you enter a temperature that is greater than the allowed maximum, the app displays an error message. In this case, enter a new temperature or enter `MAX`.
FLAP	Flap configuration. Tap the configuration that you want to use in the calculation. Depending on your configuration, this menu might include an OPTIMUM option. With this option, the app finds the optimum takeoff flap position between the highest and lowest setting available. If OPTIMUM is the only option available, the app chooses a setting from among all of the certified flap positions for the aircraft. In some cases, when you select a departure procedure that is valid for only a specific flap, the flap menu lists only that flap position. Depending on your configuration, the flap selection menu might include a PREFERRED option. If you choose this option, the app uses a single, preferred flap position that your administrator defined. If this selection doesn't provide sufficient performance, the app uses the optimum flaps for its calculation.
A/C	Air conditioning. To indicate whether air conditioning is being used, tap the proper configuration.

Box	Description
A/I	Anti-ice configuration. Tap the anti-ice configuration that is available on the aircraft.
I/C	Improved climb. Depending on your configuration, this option might not be shown.
AltCG	Alternate center of gravity.
CLB	Climb thrust, for applying climb derates. Tap the value that you want to use in your calculation. Your administrator defines the values.
AEG	All-engine gradient. From this option, you can select a predefined all-engine gradient procedure or manually enter a gradient profile. Tap the box, tap **Enter Gradient**, and then enter the gradient requirements.
RTG	Thrust rating. Tap the rating that you want to use in your calculation. The menu might include OPTIMUM. This option computes the best combination of fixed derate value plus the assumed temperature for maximum derate. The menu might also include WINDSHEAR, which uses special wind shear guidance that your administrator defines.

Related information

Calculating takeoff performance in Dispatch mode (on page 3)
Calculating takeoff performance in All Engine mode (on page 5)

Comparing takeoff calculations between devices

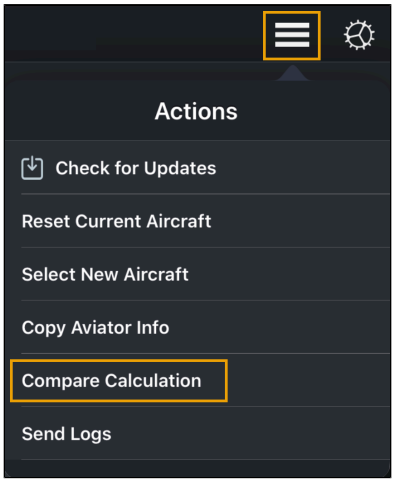
After you calculate takeoff-dispatch performance, you can compare your calculation with another crew member who is also making the calculation in OPT. This option can support your crew cross-check procedure but isn't meant to replace it.

Before you begin

On both devices, the Wi-Fi option must be turned on.

Procedure

1. After you complete the calculation, tap the **Actions** button.



2. Tap **Compare Calculation**.
3. Tap the receiving device.

   An invitation to share appears on the receiving device.
4. On the receiving device, tap **Accept**.

   A confirmation message appears on the devices.
5. Dismiss the confirmation message.

   OPT displays the **Calculation Comparison** page, which highlights any differences found.
6. To examine a highlighted value, tap the value (in blue text).

   The app shows that entry box, from which you can edit the value.

Landing calculations

Using OPT you can complete landing performance calculations in **Dispatch** or **Enroute** mode.

Your company configures OPT for its operations, so the values that you see on your device might be different from what is shown here. OPT might also be configured to receive data from the flight management computer (FMC). In this case, some data is filled in automatically.

You must complete dispatch landing calculations before take off. You can add enroute landing calculations during flight when the landing conditions change.

Calculating landing performance in Dispatch mode

You calculate landing performance from the **PERFORMANCE-LANDING** page. On this page, you describe airport and environmental conditions, aircraft configurations,

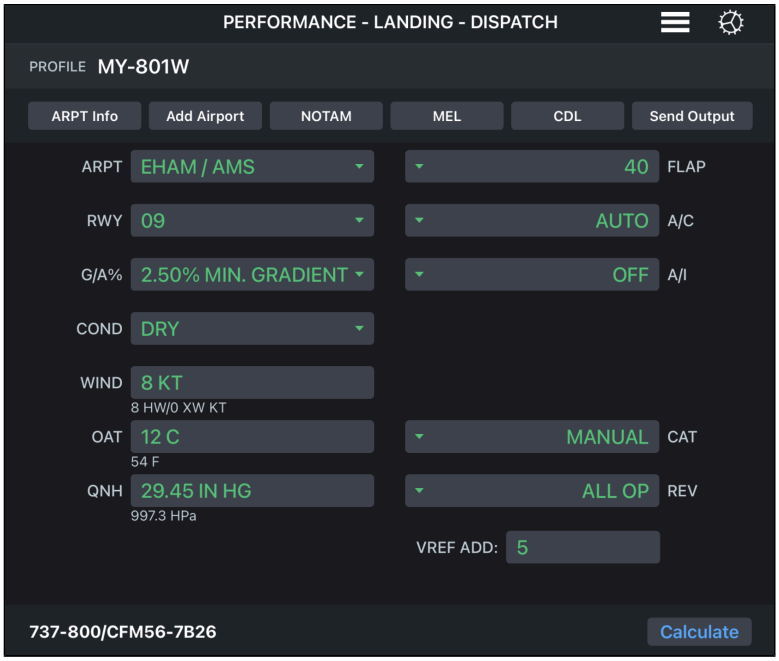
Procedure

1. Tap **LDG Dispatch** on the tab bar.

   The app displays the **PERFORMANCE-LANDING-DISPATCH** page.

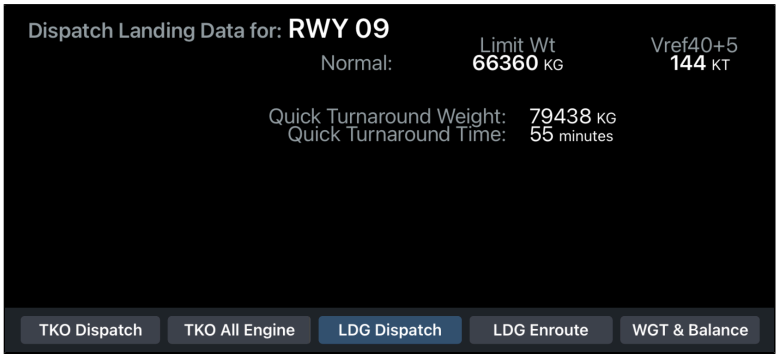
2. Tap the **ARPT** box and select the destination airport.
3. Tap the box next to each data element and select an entry from the menu.

   When all the boxes are complete, the **Calculate** button is enabled.



4. Tap **Calculate**.

For the selected runway, the app shows the maximum weight limit (**Limit Wt**) and the reference landing approach speed (**Vref**). It also shows the quick turnaround weight and time, additional line of the most favorable runway, and ice when temperatures are 10 degrees Celsius or lower.



Related information

Entries for landing calculation (on page 16)

Calculating landing performance in Enroute mode

Your administrator might configure OPT to include the **PERFORMANCE-LANDING-ENROUTE** page. Using this page, you can assess the landing distance at the time of arrival. A few more data elements are completed in this mode, including the braking configuration for landing, any unique configurations, and landing weight.

About this task

This page contains the approach speed, the required landing field length, and available landing field length for the landing weight that you enter. In general, distances are based on the information in the Boeing QRH and might be factored by your company policy. For some aircraft models, brake cooling information is available.

> ⚠ **Important:** Enroute distances in OPT depend on your configuration. They might contain factors and the effect of reverse thrust. Make sure that you understand your OPT configuration.

Procedure

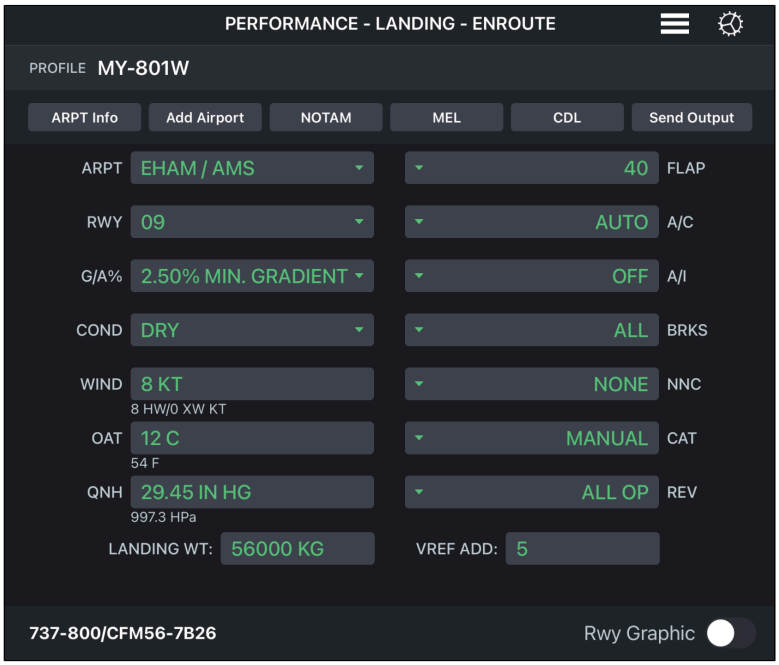
1. Tap **LDG Enroute** on the tab bar.

   The app displays the **PERFORMANCE-LANDING-ENROUTE** page.

2. Tap the **ARPT** box and select the destination airport.

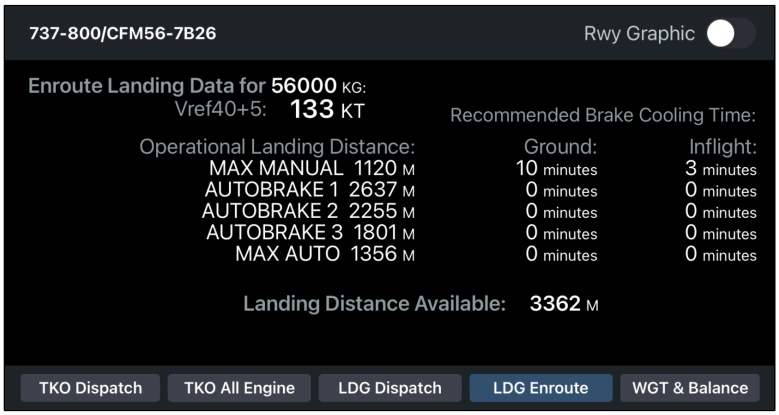
3. Tap the box next to each data element and select an entry from the menu.

   When all the boxes are complete, the **Calculate** button is enabled.

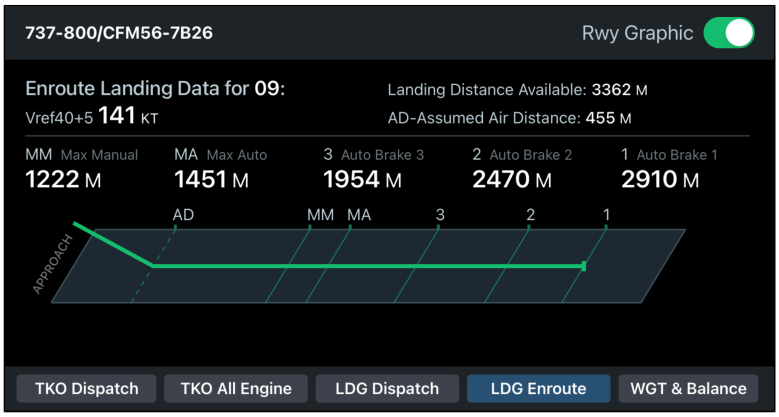


4. Tap **Calculate**.

   For the selected runway, the app shows the weight and the reference landing approach speed (**Vref40+5**). It also shows the operational landing distances and the available landing distance.



5. To show the runway graphic, switch **RWY Graphic** to ON.



Related information

Entries for landing calculation (on page 16)

Entries for landing calculation

The first set of values you select when calculating landing performance describe the runway and atmospheric conditions. These are followed by entries that describe the aircraft configuration.

Note: Your administrator configures the options in OPT. You might not see all of the options listed here in your configuration.

Box	Description
ARPT	**Airport** search. When you tap this button, the app shows the **Search for Airports** box. To find an airport, type the airport identifier or airport name in the **Search for Airports** box. Then tap the airport from the search results. When you select a new airport, the app clears the wind, OAT, and QNH information.

Box	Description
RWY	**Runway**. This menu becomes available after you select the airport. Tap the runway that you want to use in the calculations. The app checks that the runway is available for landing.
MACG	**Go-around gradients**. Tap the option that you want to use in your calculation. Depending on your configuration, you can use one of these options: • A minimum gradient. • One or more decision heights that have been equated to other gradient requirements. • An option to enter a custom gradient requirement. • An option to ignore the gradient calculation. When you use this property in the **LANDING-DISPATCH** page, OPT applies the option that you choose when calculating the limit weight, which can limit the landing weight. In the **LANDING-ENROUTE** page, this option causes the go-around calculation to take place. The app alerts you if the input weight is too high to achieve the requested go-around performance.
COND	**Runway conditions**. This menu shows the runway conditions that your administrator defined. Tap the option that best describes current condition.
WIND	Winds. Enter the wind speed in knots. You can enter either the wind component or the direction and magnitude. Your administrator might configure OPT to show the head or tailwind and crosswind components under the **WIND** box. If you enter the wind component, headwinds are positive and tailwinds are negative. If you enter wind direction and magnitude, use the format `XXX/XX`. For example, the entry `040/20` indicates a 20-knot wind coming from a magnetic heading of 40 degrees. If you enter only the headwind or tailwind magnitude, you can change the units—for example, `-5M` (meters). The app interprets this entry as a 5-m/s tailwind. The app interprets an entry of `5K` as a 5-knot headwind. You can also denote a headwind or tailwind by appending an `H` or a `T` to the wind magnitude—for example, `5T` for a 5-knot tailwind.
OAT	Outside air temperature. Enter the temperature. Your administrator configures the assumed units (Celsius or Fahrenheit), which the app shows after you enter the value. You can also select the units by entering `C` or `F` after the value. The defined units appear in the **OAT** box, and the alternate units appear below this box.
QNH	Barometric altimeter setting. Enter the QNH value as HPa (mb), or as inches of Mercury (Hg). The app checks the magnitude of your entry and converts it. The app interprets entries greater than 100 as HPa and anything less than 100 as inches Hg. Your configuration might show the converted values under your entry.
FLAP	Flap configuration. Tap the configuration that you want to use in the calculation.

Box	Description
A/C	Air conditioning. To indicate whether air conditioning is being used, tap the proper configuration.
A/I	Anti-ice configuration. Tap the anti-ice configuration that is available on the aircraft.
BRKS	Brake configuration for landing. Tap the configuration that applies to your calculation.
NNC	Non-normal configuration. Tap **NONE** or tap the non-normal configuration that applies to this calculation. The app applies the landing factors and increments to the normal configuration calculations. Depending on how your administrator configured the app, the landing factors and increments are also applied to the non-normal configuration calculation.
REV	Reverser.
LANDING WT	Weight of the aircraft at landing. Tap the box and enter the weight. Your administrator defines the default unit—pounds or kilograms. To use the other unit, enter LB or KG when you enter the weight.
VREF ADD	Addition to the reference landing approach speed. Tap the box and enter the added speed (in knots) needed to reach the target landing speed.

Related information

Calculating landing performance in Dispatch mode (on page 13)
Calculating landing performance in Enroute mode (on page 14)

More calculation options

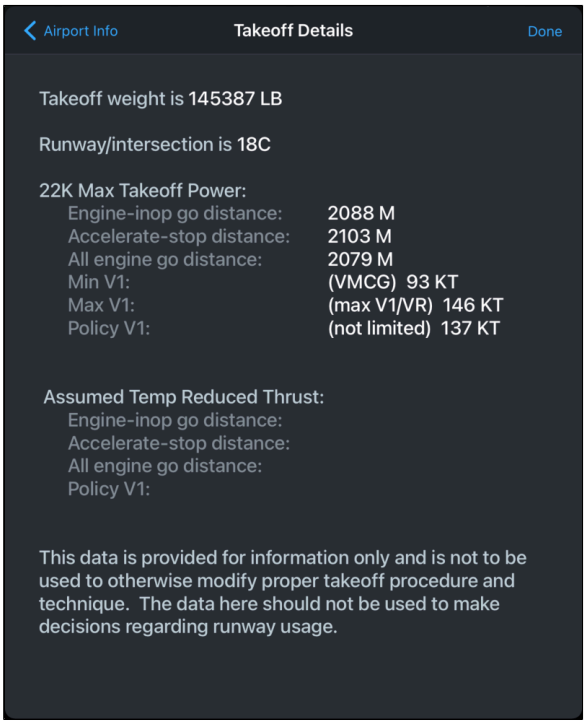
Depending on the page you're viewing, OPT presents a toolbar with more options.

Viewing airport information

After you select an airport and runway on the **PERFORMANCE - TAKEOFF** or **PERFORMANCE - LANDING** page, you can view details about the selected runway. You can also view obstacles details on the **PERFORMANCE-LANDING** page.

To view airport information, first select the airport and runway. Then tap **ARPT Info** on the toolbar. OPT displays the **Airport Information** popover.

An arrow appears to the right of sections that contain more information—for example, any NOTAMs that are being applied to calculations. To review that information, tap the row.



Adding a temporary airport

OPT includes a database of airports, which you can search. If an airport isn't in this database, you can add the airport and runway information for calculating performance. Your administrator configures this optional feature.

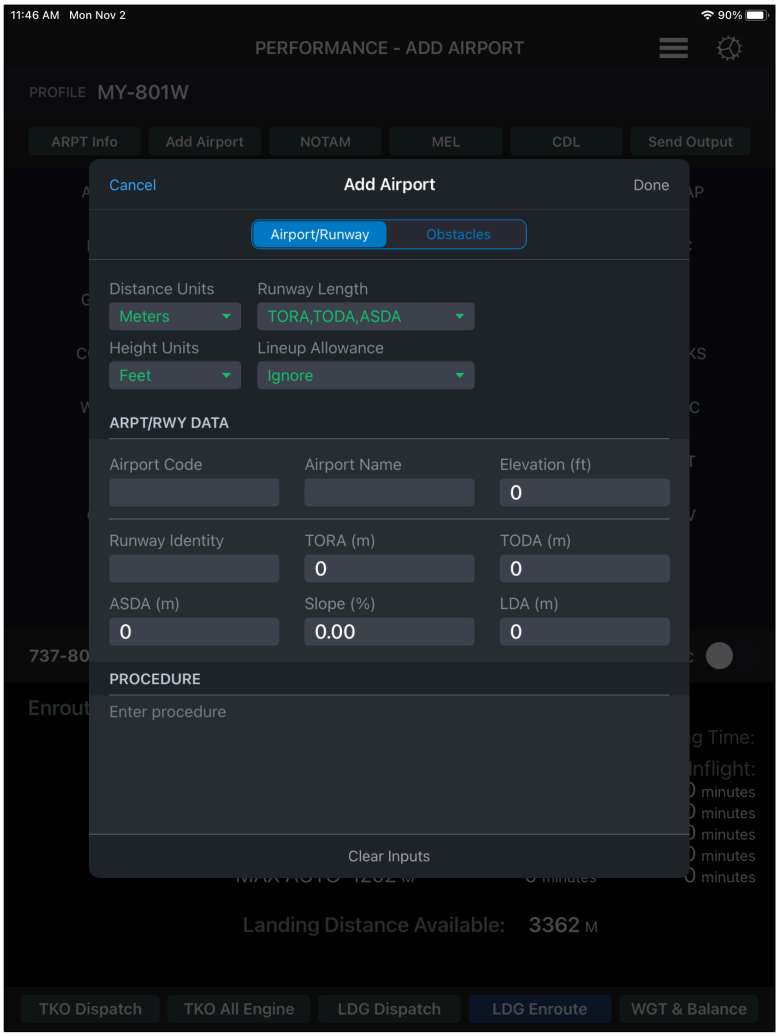
About this task

You can add an airport from the **PERFORMANCE-TAKEOFF** and **PERFORMANCE-LANDING** pages. The addition of the airport is temporary. OPT retains the airport until you close the app. No change is made to the airport database.

Procedure

1. Tap **Add Airport** on the tool bar.

   The app displays the **Add Airport** window.



2. Tap **Airport/Runway**.

   This window is the default view when you first open the **Add Airport** window. In the top half, you select the appropriate units and obstacle reference points for the entries. In the bottom half, you identify the airport and describe the runway.

3. Tap a box and make an entry.

   Complete the boxes that apply to this airport and runway.

4. To define any obstacles, tap **Obstacles** and complete the entries.

5. When your entries are complete, tap **Done**.

Related information

Entries for a temporary airport (on page 22)

Entries for a temporary airport

On the **Add Airport** window, you can add a temporary airport, if this option is enabled in your OPT configuration.

Box	Description
APRT RWY entries	
Airport Code	Enter the airport ICAO or IATA identifier.
Elevation	Enter the airport elevation.
Airport Name	Enter the name of the airport.
Runway Ident	Enter the runway identifier. Don't use the forward-slash (/) character.
TORA	Enter the takeoff run available (feet or meters).
TODA	Enter the takeoff distance available (feet or meters).
ASDA	Enter the accelerate-stop distance available (feet or meters).
Slope (%)	Enter the runway slope for the accelerate-go and accelerate-stop for takeoff, and for the landing distance available.
LDA	Enter the landing distance available.
Procedure	Enter any runway procedure information.
Distance Units	Tap **Meters** or **Feet**. These units apply to the distances in the temporary airport page.
Height Units	Tap **Meters** or **Feet**. These units are applied to the heights in the calculation.
Obstacle Distance Ref	Tap **Runway Start** or **Liftoff End**.
Obstacle Height Ref	Tap **Runway Start** or **Liftoff End**.
Runway Length Type	Tap the type that applies to the runway identified.
Lineup Allowance	Indicate whether you're including a lineup allowance in the calculation. These allowances are subtracted from the accelerate-stop (ASDA) and accelerate-go (TODA) distances when calculating field-limit performance.
OBST entries	
Distance	Enter the distance of the obstacle from the runway start or runway end, depending on your selection in the **Obstacle Distance Ref** box.

Box	Description
Height	Enter the height of the obstacle from the runway start or runway end, depending on your selection in the **Obstacle Height Ref** box.
Distance Units	Tap the distance units you want to use in your calculation.
Height Units	Tap the height units you want to use in your calculation.
Obstacle Distance Ref	Enter reference point from which you're identifying the obstacle distance.
Obstacle Height Ref	Enter reference point from which you're identifying the obstacle height.

Related information

Adding a temporary airport (on page 20)

Adding a temporary NOTAM

OPT includes any NOTAMs on a landing when it calculates performance. You can review NOTAMs on the **Airport Info** window. You can add a temporary NOTAM to describe an obstacle or runway shortening that isn't included in the NOTAMs that are loaded in the aircraft database.

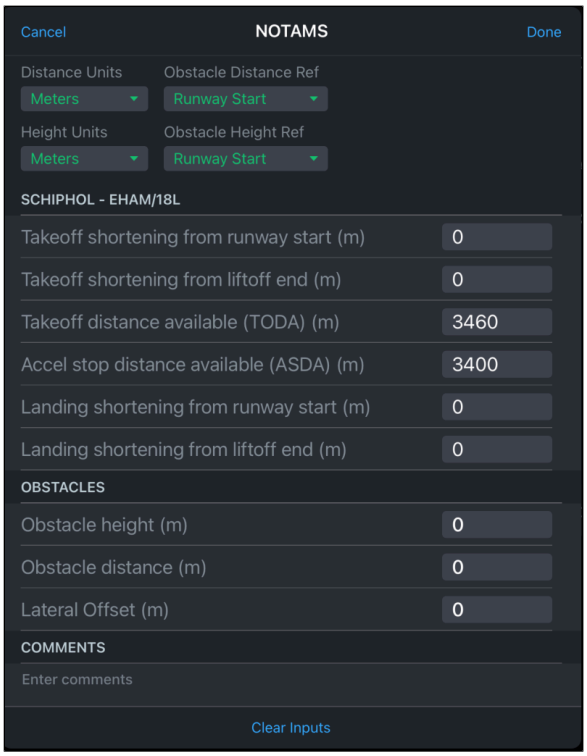
About this task

You can add a temporary NOTAM from the **PERFORMANCE-TAKEOFF** and **PERFORMANCE-LANDING** pages. OPT retains the NOTAM until you clear it. Your administrator can also set up your app to clear NOTAMs when the app restarts.

Procedure

1. Tap **NOTAM**.

   The app displays the **NOTAMS** window, which shows sections for the airport and runway, any obstacles, and comments.



2. Under **Distance Units** and **Height Units**, tap **Feet** or **Meters**.

   The app applies these units to the distances and heights in this NOTAM.

3. Under the airport and runway section, tap the box and enter the distance that you're describing in this NOTAM.
4. To describe any obstacles, tap the box to enter a height, distance, and lateral offset, as they apply to this NOTAM.
5. To include comments in the NOTAM, tap the **Enter Comments** box and enter the text.
6. Tap **Done**.

Results

After you complete the NOTAM, an exclamation point appears below **NOTAMS** on the **PERFORMANCE-TAKEOFF** or **PERFORMANCE-LANDING** page. This exclamation point indicates that an active NOTAM exists on the selected runway, whether the NOTAM is temporary or effective for a defined period of time.

You can view effective NOTAMs from the **Airport Info** window.

Clearing a temporary NOTAM

A temporary NOTAM is one that you add for an airport in OPT.

About this task
The NOTAM stays in the app until you clear it. Your administrator can also set up your app to clear NOTAMs when the app restarts.

Procedure
1. From the **PERFORMANCE-TAKEOFF** or **PERFORMANCE-LANDING** page, tap **NOTAM**.
2. Tap **Clear Inputs**.
3. Tap **Done**.

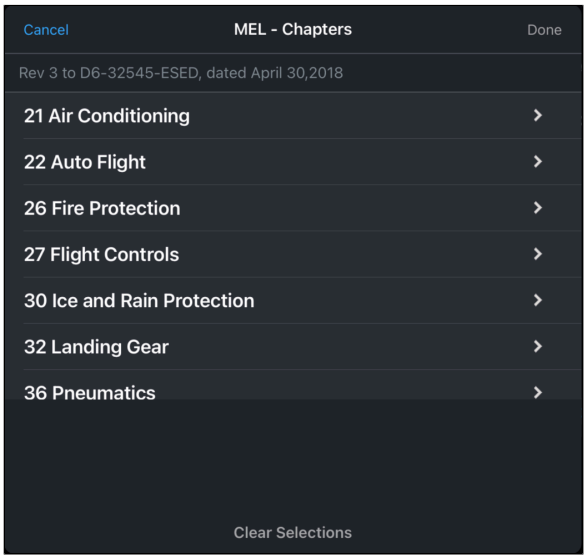
   OPT removes the temporary NOTAM.

Adding MEL performance items

You can add items from the minimum equipment list (MEL) that affect performance. You can access the MEL from the **PERFORMANCE-TAKEOFF**, **PERFORMANCE-LANDING**, or **ALL ENGINE** page.

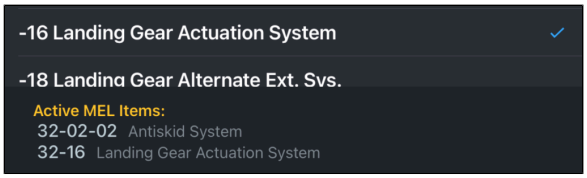
Procedure
1. Tap **MEL**.

   The app displays the **MEL-Chapters** window.



2. Tap the pertinent chapter.
3. Tap the items that you want to include in performance calculations.

   A blue check mark appears next to each item that you select. The items that you added appear below the item list.



4. To return to the chapter list, tap **MEL-Chapters**.

   An amber badge shows that items are added in the chapter. Your selected items appear at the bottom of the screen.

5. Tap **Done**.

   An amber badge appears on the **MEL** button, showing the number of items that you added.

Removing MEL performance items

You can remove items that you added to the minimum equipment list (MEL) for performance calculations. You can show MEL items on the **PERFORMANCE-TAKEOFF**, **PERFORMANCE-LANDING**, or **ALL ENGINE** page.

Procedure

1. Tap **MEL**.

   An amber badge appears on the chapters to which MEL items were added.

2. Tap the category.

   The app displays the items within that chapter. A blue check mark appears next to the items that are included in performance calculations.

3. Do one of the following actions:

   - Tap the selected item that you want to remove from the performance calculations.
   - To remove all items that were added, tap **Clear Selections**, and then tap **Yes** in the confirmation message.

4. Tap **Done**.

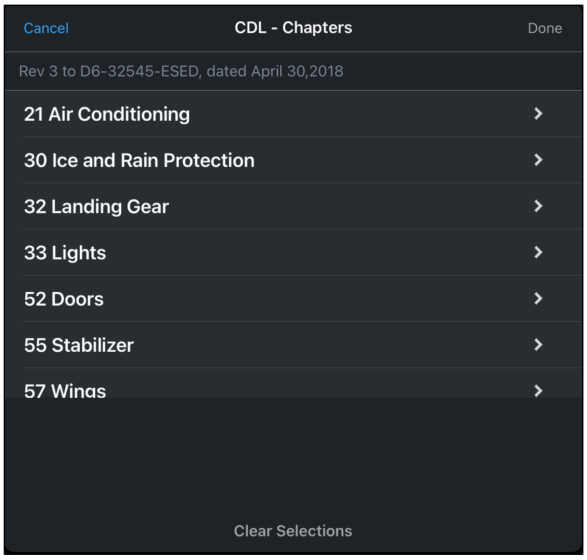
Adding CDL performance items

You can add items from the configuration deviation list (CDL) that affect performance. You can access the CDL from the **PERFORMANCE-TAKEOFF**, **PERFORMANCE-LANDING**, or **ALL ENGINE** page.

Procedure

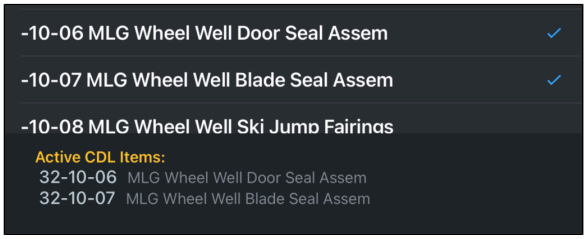
1. Tap **CDL**.

   The app displays the **CDL-Chapters** window.



2. Tap the pertinent chapter.
3. Tap the items that you want to include in performance calculations, and, if prompted, enter a quantity.

   A blue check mark appears next to each item that you select. The items that you added appear below the item list.



4. To return to the category list, tap **CDL-Chapters**.

   An amber badge shows that items are added in the chapter. The items that you added appear below the chapters.

5. Tap **Done**.

   An amber badge appears on the **CDL** button, showing the number of items that you added.

Removing CDL performance items

You can remove items that you added to the configuration deviation list (CDL) for performance calculations. You can show CDL items on the **PERFORMANCE-TAKEOFF**, **PERFORMANCE-LANDING**, or **ALL ENGINE** page.

Procedure

1. Tap **CDL**.

   An amber badge appears on the categories to which CDL items were added.

2. Tap the chapter.

   The app displays the items within that chapter. A blue check mark appears next to the items that are included in performance calculations.

3. Do one of the following actions:

   - Tap the selected item that you want to remove from the performance calculations.
   - To remove all items that were added, tap **Clear Selections**, and then tap **Yes** in the confirmation message.

4. Tap **Done**.

Sending calculation data

From the **PERFORMANCE-TAKEOFF** or **PERFORMANCE-LANDING** page, you can send the calculation data to different outputs, such as a printer or a file storage location.

Before you begin

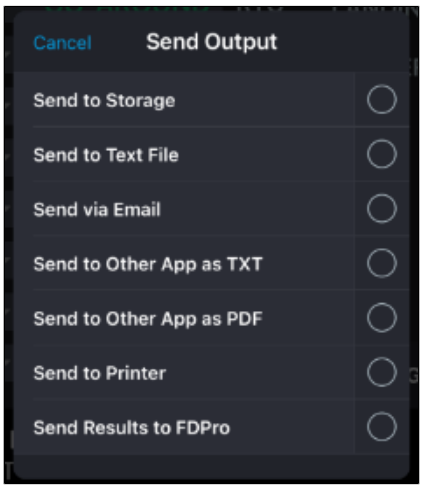
Complete the takeoff or landing calculation and keep the results displayed on your device.

Procedure

1. With the completed calculation displayed, tap **Send Output**.

   OPT displays the **Send Output** menu. Your administrator defines the formats that are available.

   Note: FliteDeck Pro X version 4.5 now accepts calculation data about enroute landing from OPT.

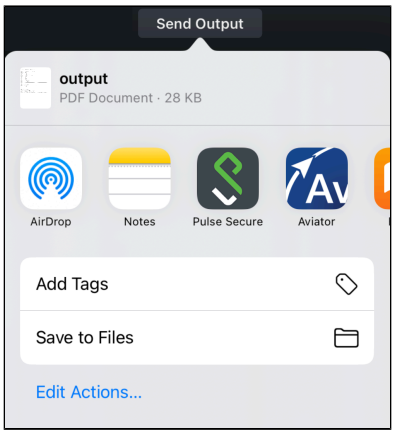


2. Tap the output that you want to use, and then tap **Done**.

   Your administrator might require you to authenticate the output using the **CREW SIGNATURE** page.

3. If you must authenticate the output selection, complete the **CREW SIGNATURE** page, and then tap **Done**.

   The app displays prompts for completing the action that you selected. For example, if you choose to print the output, the app prompts you to select the printer. The app might show an options menu. From this menu, you can save the output to a file or send it to another app on your device.



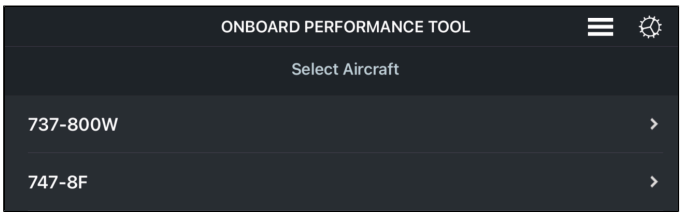
4. To complete the action, follow the prompts to complete the action.

Other OPT actions

The Boeing OPT toolbar includes an **Actions** menu, from which you can complete miscellaneous tasks.

Selecting an aircraft type

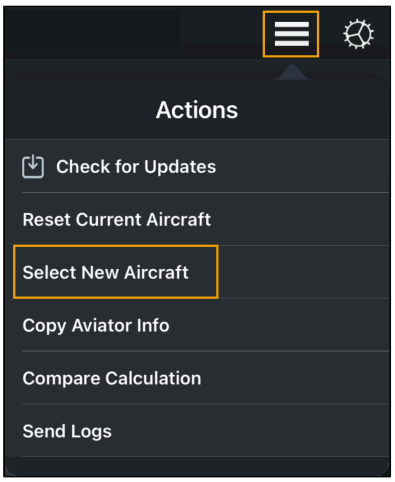
Your administrator can configure OPT for more than one aircraft tail or type. In this case, OPT presents a list of aircraft to choose from when you open the app.



Tap the aircraft for which you're completing calculations.

OPT loads the data for the aircraft that you selected. After the app completes the loading process, it shows the **PERFORMANCE - TAKEOFF** page.

To change the aircraft type, tap the **Actions** button and tap **Select New Aircraft**.



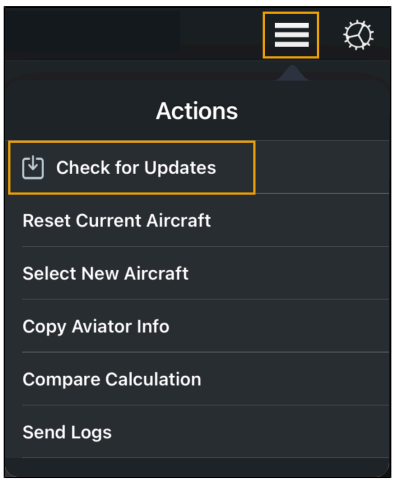
Then tap the aircraft type.

Downloading OPT updates

You can check for updates to Boeing OPT from the **Actions** menu. When your administrator stages updates for you to download, a badge appears on the **Actions** button.

Procedure

1. Tap the **Actions** button.



2. Tap **Check for Updates**.

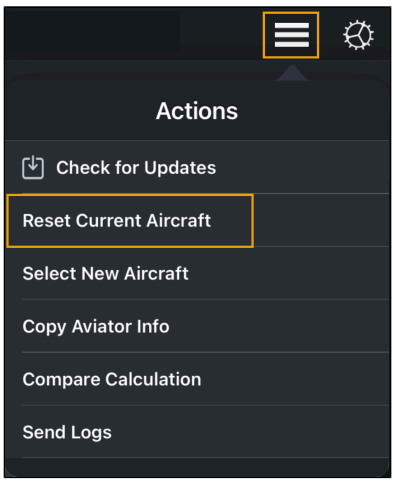
   The app shows a message that confirms that updates are downloaded or explains an error.

Resetting the current aircraft

When entering data, you can quickly reset the page to the original settings for the selected aircraft.

Procedure

1. Tap the **Actions** button.



2. Tap **Reset Current Aircraft.**.

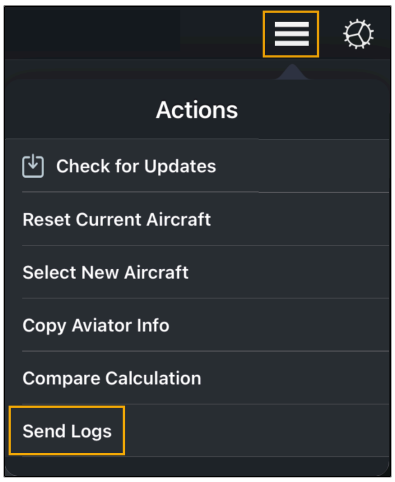
   The app clears the entries on the page.

Sending OPT log files

If you're working with your administrator to resolve an issue in OPT, you might be asked to send log files.

Procedure

1. Tap the **Actions** button.



2. Tap **Send Logs**.

   The app presents an email message. It includes the address where the logs are being sent, and ZIP files of the app data.

3. Tap the **Send** button.

OPT settings

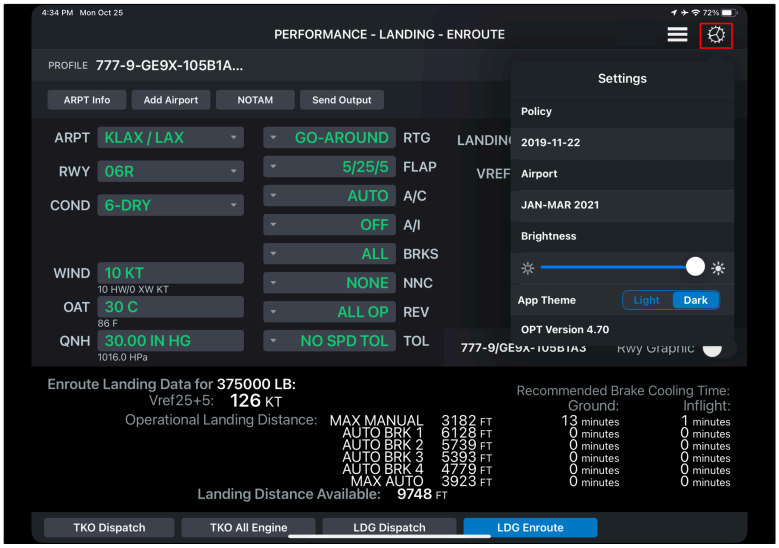
The Boeing OPT toolbar includes a **Settings** menu, from which you can complete miscellaneous tasks.

Adjusting screen brightness

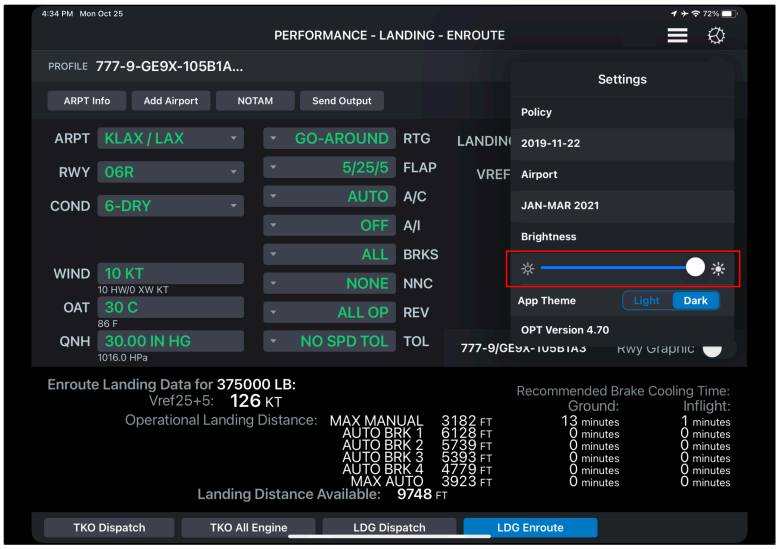
Adjust the screen brightness to enhance visibility in bright light environments.

Procedure

1. Tap the **Settings** button.



2. To adjust the brightness, move the slider.

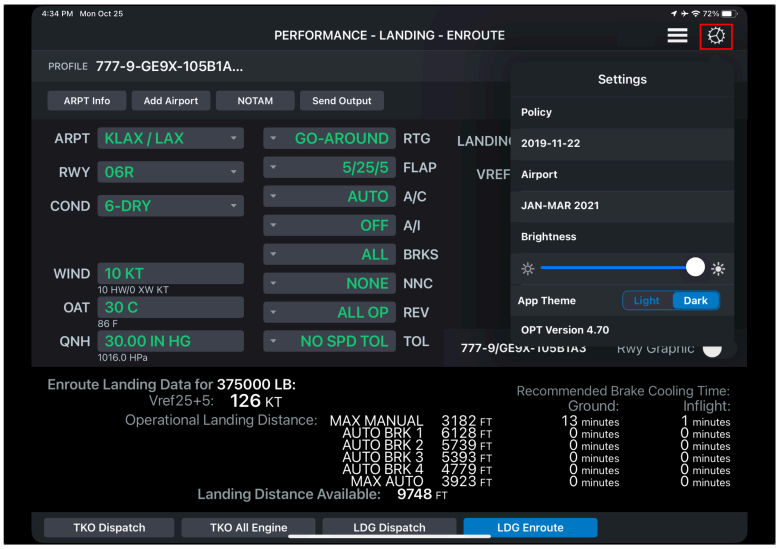


Switching between light or dark mode

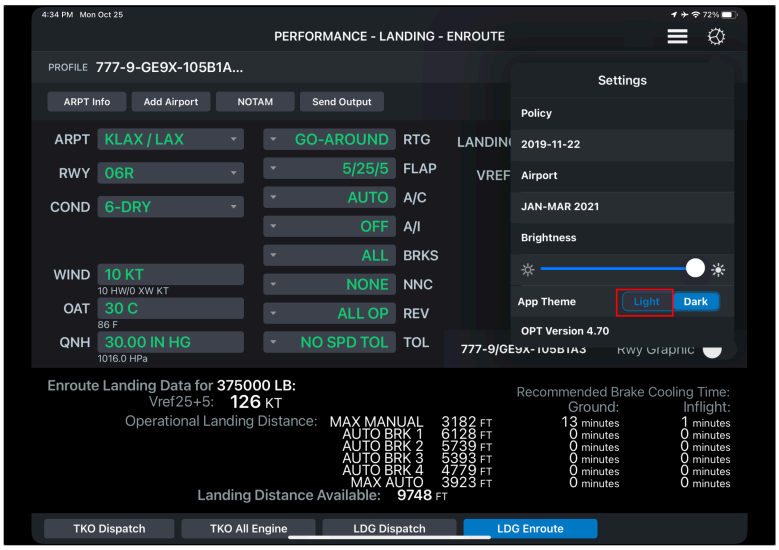
Select the light or dark mode to enhance visibility in bright-light or low-light environments.

Procedure

1. Tap the **Settings** button.



2. Select **Light**.



Results

The application is displayed in the light mode.