



# 2024 SmartWay Air Carrier Partner Tool: User Guide

**U.S. Version 1.0  
(Data Year 2023)**

**EPA-420-B-24-007 | February 2024 | SmartWay Transport Partnership | [epa.gov/smartway](https://epa.gov/smartway)**



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**U.S. Version 1.0  
(Data Year 2023)**

Transportation and Climate Division  
Office of Transportation and Air Quality  
U.S. Environmental Protection Agency

**EPA-420-B-24-007  
February 2024**

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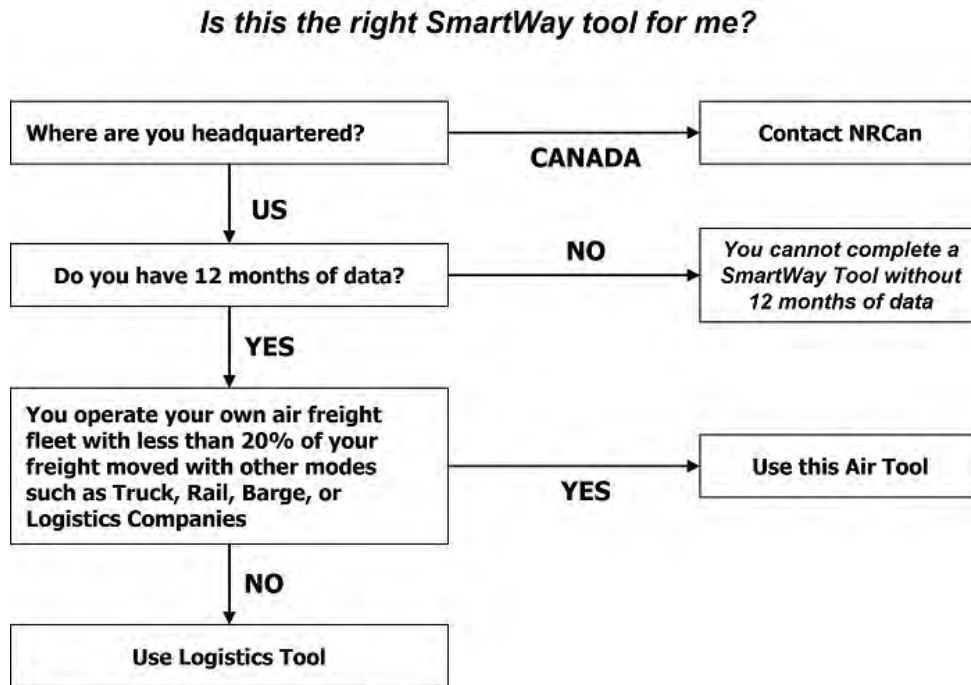
# Pre-Checklist — Before Getting Started

## IS THIS THE RIGHT SMARTWAY TOOL FOR ME?

**WARNING:**

*\*\*\*Before beginning, use this chart to make sure you are choosing the right tool for your operations!\*\*\**

**Figure 1: Tool Selection Diagram**




If none of the above statements is applicable, contact EPA SmartWay at 734-214-4647 for assistance.

### WHAT IS THE SMARTWAY TRANSPORT PARTNERSHIP?




Launched in 2003, the SmartWay Transport Partnership is a public/private collaboration between the EPA and the freight industry to improve fuel efficiency, increase environmental performance, and encourage supply chain sustainability.

Six types of freight transport companies can join SmartWay.

 Freight shippers

-  Logistics companies (including 3PLs/4PLs<sup>1</sup>)
-  Truck carriers
-  Rail carriers
-  Barge carriers
-  Air carriers

Tools are provided for each of the six freight transport company types. The SmartWay Tools:

-  Assess freight operations
-  Calculate carbon dioxide (CO<sub>2</sub>), nitrogen oxide (NO<sub>x</sub>), Particulate Matter (PM), and Black Carbon (BC) emissions, and
-  Allow partners to track fuel-efficiency and emissions reductions.

SmartWay ranks Partners' efficiency and environmental performance based on the information reported in the tools and recognizes superior performance through the SmartWay Excellence Awards and the SmartWay High Performers list.

## WHY DO AIR FREIGHT CARRIERS JOIN THE SMARTWAY TRANSPORT PARTNERSHIP?

The SmartWay Transport Partnership provides Air Freight Carriers with ways to reduce the environmental impact of their freight operations and address costs. Designed with and for the freight sector, the SmartWay Transport Partnership delivers solutions to marketplace needs and challenges. With access to the latest in EPA-tested technologies and peer-provided success stories, carriers that join the SmartWay Transport Partnership can gain a better understanding of their environmental footprint and assert their corporate leadership.

Additionally, SmartWay Partners are associated with an internationally recognized and respected brand that symbolizes cleaner, more efficient transportation choices.




Shippers that join SmartWay move significant amounts of freight with SmartWay Carriers. The higher efficiency of SmartWay carriers compared to non-SmartWay carriers gives SmartWay Air Freight Carriers an opportunity to improve corporate freight efficiency, reduce their carbon footprint, and voluntarily advance freight sustainability for themselves and their customers.

Participation in SmartWay helps SmartWay Air Freight Carrier Partners

-  identify opportunities to improve efficiency

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<sup>1</sup> 3PLs/4PLs Third party logistics/fourth-party logistics companies.

-  demonstrate efficiency to customers and stakeholders
-  evaluate and compare carrier performance, and
-  determine the company's transportation carbon footprint

SmartWay provides Air Freight Carriers with free Tools that help assess and compare various freight transportation options with detailed reports and analyses that support better business decision making.





## HOW DO AIR FREIGHT CARRIERS JOIN THE SMARTWAY TRANSPORT PARTNERSHIP?

Air Freight Carriers join SmartWay by submitting a SmartWay Air Tool (hereafter known as the "Air Tool," or simply, the "Tool.")

Air Carriers that submit tools that are approved by EPA are known as "SmartWay Air Carrier Partners."

When an air freight carrier submits an Air Tool to EPA, they agree to the requirements stipulated in the SmartWay Partnership Annual Agreement for Carriers--notably, that they will measure and report the emissions performance of their company annually and provide supporting documentation to EPA upon request.

SmartWay Air Freight Carriers agree to complete and submit the SmartWay Air Tool to:

-  define fleet composition
-  characterize company activity
-  individually benchmark multiple fleets
-  track annual changes in performance

Upon approval of an Air Tool submission, an aircraft company will be identified as a SmartWay Air Carrier Partner on EPA's website, on the SmartWay Partner List, and in a database used to identify companies that meet SmartWay's annual requirements. The carrier will also receive information on how to access its current SmartWay Registration Document.











## HOW DO I JOIN IF MY PARENT COMPANY HAS MULTIPLE FLEETS?

Companies that join the SmartWay Partnership should include all of their fleets in their submission. If a company wishes to list multiple fleets in the Air Tool, they should list these fleets as their customers hire them. Internal fleets invisible to a customer should not be listed separately. Companies will be listed at the Company level in the SmartWay Partner list on the SmartWay website, and each individually defined fleet will appear as a separate entity in the SmartWay Carrier Data file that customers use to identify which fleets they do business with in the Shipper and/or Logistics Tools.

*SmartWay highly recommends developing your list of fleets before beginning your data entry process. Any fleet that a shipper or logistics company could hire directly should be listed as a separate fleet in your Air Tool submission. The best strategy is to have a clear idea of how to define your companies before filling out the Tool.*

## WHAT DATA DO I NEED TO GATHER TO COMPLETE THE AIR TOOL?

To participate in SmartWay, air freight carriers need to gather the following essential information to complete the Air Tool:

-  The official company name EXACTLY as you would like it presented on the EPA website and other EPA communications
-  Company contact information
-  Contact details for your Working Contact
-  Contact details for an Executive, Sustainability and/or Other Contact(s) (Executive cannot be the same as the Working Contact)
-  Percent split between US/Canada operations
-  A comprehensive list of fleets, including fleet details, such as:
  - Fleet type (dedicated freight, mixed operations, or passenger)
  - Service area (international, national, or regional)
  - Revenue category
  - Total number of aircraft
-  Aircraft inventory information including aircraft and engine makes/models
-  Aircraft operations data including:
  - Fuel type and consumption levels
  - Miles and ton-miles traveled
  - LTOs and hours of operation
-  Data source descriptions
-  SmartWay ID number (if this is not your first tool submission)


This data should be provided for your company's fleets. This data reflects the amount of freight carried by each carrier, the distance that freight is carried, and the fuel consumed to carry the freight.







## WHAT SOFTWARE & HARDWARE IS REQUIRED FOR COMPLETING THE AIR TOOL?

The Air Tool was designed in Microsoft Excel using forms and Visual Basic for Applications (VBA) macros and code. Completing the Air Tool requires the following software and system requirements:


### Supported Operating Systems

-  Microsoft Windows 10 or later
  - Includes Windows 10, Windows 11, and later
  - The Tool should also be compatible with older versions of Windows if all other requirements are met as well. However, Windows 8.1 and older have reached end of support from Microsoft and this may affect tool performance.

### System Requirements

-  IBM Pentium processor or greater
-  2 GB Ram
-  100 MB disk space
-  Monitor display setting of 1,024 x 768 or greater

### Software Requirements



-  Microsoft Excel 2016 or later
  - Includes Excel 2016 and Excel in Office 365
  - Must be the one-time purchase version of Microsoft Excel installed on a PC or the Office 365 subscription **desktop version** of the application; **cannot run with Microsoft Excel online or through OneDrive online**
  - The Tool should also be compatible with older versions of Excel if all other requirements are met as well. However, Excel 2013 and older have reached end of support and Microsoft no longer provides technical support, bug fixes, or security fixes. This may affect tool performance.
  - Please download the tool and save it to your desktop or a location on your hard drive if your desktop is in the cloud. The tool will not run if saved to the cloud or certain other locations.

Please check with the user guides for your computer, online support, or your company's IT department to make sure your system is set up to use the Air Tool.

## HOW DO I SET THE SECURITY LEVEL WHEN OPENING SMARTWAY TOOLS?

Since the Tool employs macros, Excel macros must be enabled to use the Tool. If necessary, follow the directions on the first screen of the Tool to enable macros, follow directions provided on the Microsoft Support website: <https://support.office.com/en-us/article/Enable-or-disable-macros-in-Office-files-12B036FD-D140-4E74-B45E-16FED1A7E5C6>, or follow the directions below:

### Macros must be enabled on your computer to use the Air Tool.

-  The default macro security setting in Excel is "Disable all macros with notification"
-  When you open the tool, you may get a security alert that macros are present, and you need to choose to enable the macros for this file to work. The steps below describe how to enable macros for different versions of Excel, first if the message bar or security dialog appear, and alternatively in the Trust Center if the message/dialog do not appear.

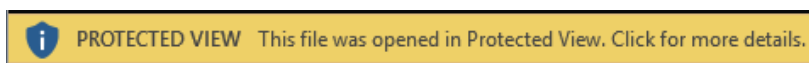
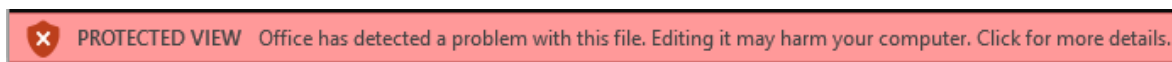
### Enable macros when the Message Bar appears

1. When you open the tool, the yellow message bar appears with a shield icon and the **Enable Content** button.



2. On the Message Bar, click Enable Content.

**Note:** if the file opens in Protected View, click **Enable Editing** on the message bar. If there is no Enable Editing option, click **for more details** and then click **Edit Anyway**. The Protected View message will look similar to the image below:



Once editing is enabled, follow Steps 1 and 2 above to enable content on the macro message bar.

### **If the Message Bar or Security Options dialog does not appear, change macro settings in the Trust Center**

#### Change macro settings in the Trust Center

1. Click the **File** tab
2. Click **Options**
3. Click Trust Center, and then click Trust Center Settings.

4. In the Trust Center, click Macro Settings.
5. Click the option "Disable all macros with notification."
6. Click **OK**.
7. Close out of the Excel file and then re-open it.
8. Follow the previous instructions to Enable macros when the Message Bar or Security Options dialog appears.

The following image is the **Macro Settings** area of the Trust Center.

**Figure 2. Macro Settings Screen in the Trust Center**



Once macros are enabled (and you are not in Protected View), you should be able to proceed with running the Tool.

**If Tool does not open at this point, review the "Software and Hardware Requirements."** If you cannot determine how to correct the problem after reviewing this section, contact your SmartWay Partner Account Manager.

### WHAT IS INCLUDED IN THE SMARTWAY CARRIER PARTNERSHIP AGREEMENT?

To join the SmartWay Transport Partnership as an air freight carrier, you must agree to the language on the "Partnership Agreement for Carriers." When you begin working within the Tool, you will be asked to check a box stating that you agree to the terms of the Partnership Agreement. **This agreement must be renewed annually.**

Please review this language with the appropriate personnel within your organization before completing or submitting a Tool to EPA.

## Partnership Agreement for Carriers

### With this annual agreement, your company joins the SmartWay Transport Partnership and commits to:

1. Measure and report to EPA, on an annual basis, the emissions performance of your fleet(s) using EPA's SmartWay Carrier Tool(s). Existing fleets will report the 12 months of data for the prior year ending December 31. Newly formed fleets require a minimum of 12 months of operational data.
2. Have your company's name and performance results posted on the SmartWay websites/databases.
3. Upon EPA's request, agree to submit supporting documentation to EPA for any data used to complete the Tool, and agree to submit to an audit of this data.

### In return, EPA commits to:

1. Promote company participation in the Partnership by posting Partner names on the EPA SmartWay Website and in related educational, promotional, and media materials. EPA will obtain express written consent from the Partner before using the Partner's name other than in the context of increasing public awareness of its participation as described here.
2. Provide companies with industry-wide performance benchmark data as this data becomes available to EPA.
3. Assist Partners in achieving emission and fuel usage reduction goals.

### General Terms

1. Either party can terminate this Agreement at any time without prior notification or penalties or any further obligation.
2. EPA agrees not to comment publicly on the withdrawal of specific partners.
3. EPA reserves the right to suspend or revoke Partner status and terminate this Agreement if the Partner defaults under this Agreement or misuses a SmartWay trademark.
4. The Partner consents to EPA disclosing all information collected in the Tool to the United States Environmental Protection Agency (EPA) and to the contractor responsible for hosting the SmartWay database, for the purposes of administering the SmartWay Program and trademarks only.
5. The Partner understands that this Agreement does not constitute authorization to use the SmartWay trademark, and that such authorization can only be obtained by entering into a separate agreement with the EPA.
6. The Partner agrees that it will not claim or imply that its participation in the SmartWay Transport Partnership constitutes EPA's approval or endorsement of anything other than the Partner's commitment to the program. The Partner will not make statements or imply that EPA, or the United States, endorses the purchase and/or sale of the Partner's products and services or the views of the Partner.
7. The annual submission of this SmartWay Tool constitutes agreement to all terms in this Partnership Agreement.

## WHAT'S NEW IN THE 2024 AIR TOOL?

1. Miscellaneous text and format updates for clarification.

The following sections describe the information needed and the process for completing the required sections of the Air Tool. The **Air Tool Technical Documentation**<sup>2</sup> explains more about the data sources and calculation methodology used by the Tool; this guide focuses on the essentials for completing the Tool.

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<sup>2</sup> You can access the Air Tool Technical Documentation through the SmartWay Partner Portal.

# Data Collection Requirements

## ESTABLISHING YOUR DATA COLLECTION YEAR

Before beginning your data collection, identify the last calendar year for which you have full annual (12 months) data. This means that you have data from January of the calendar year through December of the same year. Newly formed fleets require a minimum of 12 months of data. If you do not meet these requirements, please apply once you have the required data.

## REQUIRED DATA

To complete the Air Tool, you will need to compile data regarding your fleet(s) characteristics and activity levels. See [above](#) for a complete list of required data.

# Tool Screens and Data Entry

## DOWNLOADING THE SMARTWAY AIR TOOL

To download the SmartWay Air Tool, visit: <https://www.epa.gov/smartway/smartway-air-carriers-tools-and-resources>. Save the Tool in a folder on your hard drive; this folder should house copies of your data and future updates.

## HOW TO SET SECURITY LEVELS FOR THE SMARTWAY TOOLS

In some cases, Microsoft Excel will ask you to adjust your security settings before opening the Tool. Instructions should appear on your screen *if* you need to change your security settings before running the Tool.

If you need additional assistance with your security settings, see "[How Do I Set the Security Levels for SmartWay Tools](#)" above.

## INTRODUCTORY SCREENS


Upon opening the Tool, you will see a **Welcome** screen, followed by five screens which orient you to the Tool. The **Assistance for New Users** screen appears first and allows users to view an orientation video. Additional screens may be accessed from this screen, including Tool selection guidance, data collection needs, Tool help and navigation, and the SmartWay Partner Tool Schedule for the current year. These are general information screens and may be skipped if you are already familiar with the Tool. However, upon proceeding you **MUST** select the box at the bottom of the Partnership Agreement screen, indicating that you agree to the terms of the Partnership Agreement.

## US/CANADA OPERATIONS SCREEN

The SmartWay Transport Partnership is administered in both the United States and Canada. The Partnership operates the same way in both countries; however, data collection for Canadian Partners is collected in metric units and there are French translations of all Tool screens and guidance.

If your company operates in both the United States and Canada, you should **ONLY SUBMIT ONE TOOL**. You may select either the US Tool or the Canadian Tool, and your Partnership participation will be recognized in both countries. If unsure about which country to which you should submit, you may contact either national SmartWay Program for assistance. Use the following program links:

 United States: <https://www.epa.gov/smartway>

 Canada: <https://www.nrcan.gc.ca/energy/efficiency/energy-efficiency-transportation-and-alternative-fuels/fuel-efficiency-commercial-transportation/smartway-fuel-efficient-freight-transportation/smartway-partners/join-smartway/21056>

To allow the United States and Canada to accurately determine the impacts of freight operations in each country, the last introductory screen in the Air Tool asks you to indicate the approximate percentage of your total air miles attributable to each country.

**Figure 3. US/Canada Operations Screen**

The SmartWay Transport Partnership is now being administered in the United States and Canada. The Partnership operates the same in both countries, allowing partners to submit one tool for all of their US-Canada operations. Partners will be recognized by both national programs and will be listed on both the US and Canadian SmartWay websites. The US and Canadian SmartWay tools produce the same output results, however the Canadian tools use metric rather than English measurements and are available in French as well as English.

Partners should submit to the country where their headquarters is geographically located.

If unsure about which country to which you should submit, please contact either national SmartWay Program for assistance.

United States: <http://www.epa.gov/smartway/>  
 Canada: <http://www.smartway.nrcan.gc.ca>

To allow the United States and Canada to determine country-specific impacts for internal tracking purposes, please answer the following question about your freight operation. This answer is not used in any calculations regarding your score so therefore can be approximate.

Please indicate the approximate percentage of your overall operations in the United States and Canada. ?

% Operation in the United States  
 % Operation in Canada

### STEP 1: ENTERING PARTNER NAME

Your Partner Name is the official name that your customers would recognize for your company—in other words, the name someone hiring you would look for. Under Step 1 on the **Home** screen:

1. Type your Partner Name EXACTLY as you would like it to appear on the SmartWay website and in other EPA communications in the field as indicated. For example, you may enter:

 ABC Company

 ABC Company, Inc.



Your company will be listed **exactly** as you've entered it here. Therefore, it is important to pay special attention to proper capitalization, abbreviations, annotations, and punctuation.



2. Proceed to Section 2 to enter Contact Information.

### STEP 2: COMPANY AND CONTACT INFORMATION

The SmartWay Tool asks for:

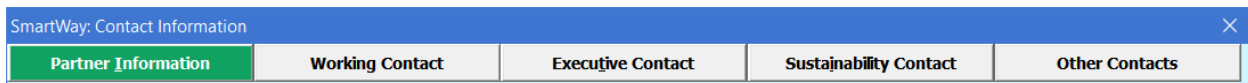


-  **General company information** such as location, web address, phone number, etc.
-  **A Working Contact** for any questions about your company's participation and Tool submissions. The **Working Contact** is the individual designated by the Executive Contact to directly interface with SmartWay regarding specific tasks involved in the timely submission of the Tool. The Working Contact is responsible for coordinating the assembly of information to complete/update fleet data; completing and updating the Tool itself; maintaining direct communication with SmartWay; and keeping interested parties within the company apprised of relevant developments with SmartWay. (NOTE: To ensure that e-mails from SmartWay/EPA are not blocked, new contacts may need to add SmartWay/EPA to their preferred list of trusted sources.)
 

**An Executive Contact:** the **Executive Contact** is the company executive who is responsible for agreeing to the requirements in the SmartWay Partnership Annual Agreement, overseeing the Working Contact (as appropriate), and ensuring the timely submission of the Tool to SmartWay. The Executive Contact also represents the company at awards/recognition events. This person should be a Vice President or higher-level representative for the company.
-  **A Sustainability Contact (optional):** the **Sustainability Contact** is the individual assigned responsibility for monitoring the company's environmental performance. The Sustainability Contact may be the same as the Working or Executive Contact (and specified by checking the "Same as" boxes in the Sustainability Contact section) but cannot be the same as any Other Contact.
-  **Additional contacts (optional):** Additional contacts may include anyone who is not the Working, Executive, or Sustainability contact but may be involved with SmartWay (e.g., press/media contact, fleet manager, etc.).

**Note** that you MUST have at least two contacts listed in the contact information section of the Tool, and the Working and Executive Contacts must be different, in order to proceed. SmartWay recommends developing an internal succession plan to make sure that your Air Tool submission schedule is maintained, in the event that a Working Contact is reassigned, or leaves the company for any reason.

Under the **Partner Information** tab:



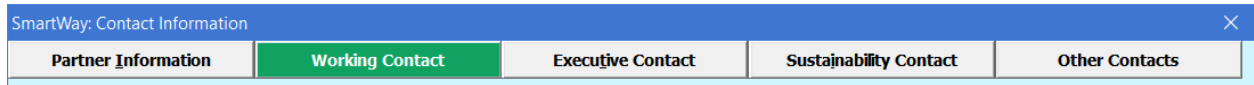
**Note:** Use the Tabs at the top of the window to navigate between the 5 information screens

**Each field marked with an asterisk must be filled out. You will not be able to submit the Tool to SmartWay without this information.**

1. Enter the Company address, phone numbers, and website (optional).

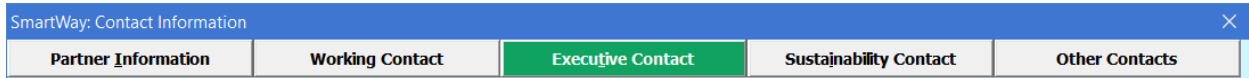
2. Enter the Working Contact name and title.
3. Enter the Executive Contact name and title.
4. Enter the Sustainability Contact name and title (optional).

**Under the Working Contact tab:**



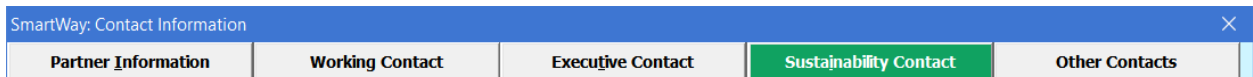
1. Enter the Working Contact information. If the Working Contact shares the same address as the company, you may select the **Use Partner Address** button to auto-populate the address section of this record. Enter the email address twice to confirm its accuracy. When confirmed a ✓ will appear to the right.

**Under the Executive Contact tab:**



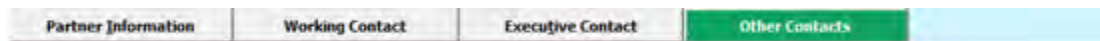
1. Enter the Executive Contact information. If the Executive Contact shares the same address as the company, you may select the **Use Partner Address** button to auto-populate the address section of this record.

**Under the Sustainability Contact tab:**



1. Enter the Sustainability Contact information, if applicable. If the Sustainability Contact shares the same address as the company, you may select the **Use Partner Address** button to auto-populate the address section of this record.

**Under the Other Contacts tab:**



1. Enter Other Contacts (if applicable) by selecting the **Add New Contact** button.
2. Enter the first Other Contact then select **OK** when done.

**NOTE:** You must supply at least two unique contacts on the contact screen to ensure EPA has access to at least two people for Tool submission follow-up.

**NOTE:** *In some cases, companies with multiple fleets will gather information from different sources within the company. You may find it useful to have this additional contact information stored within the Tool.*

You can add more contacts to the **Other Contacts** box by repeating this process. If you wish to edit an existing contact's information, highlight the name you wish to edit and then select the **Edit Selected Contact** button. You can remove an existing contact by highlighting the contact and then selecting **Delete Selected Contact**

To make sure you have filled out all required contact information, select **Validate Screen** at the bottom of the screen on the **Partner Information** tab. If any information is missing or invalid, a dialogue box will appear informing you what additional information is required.


Next select the **HOME** button to return to the **Home** screen and go to Step 3.


### STEP 3: FLEET DESCRIPTION(S)

The Air Tool tracks fleet-level operations. Most carriers will only need to create one fleet.

If you have multiple fleets that can be hired by customers individually, you should create multiple fleet records in the Tool and characterize their operations individually. You should not include internal company fleet definitions or designations—only separate fleets as they would be identified and hired by your customers.

There are two screens in the **Fleet Description(s)** section of the Tool:

 **Fleet Identification:** For each fleet that a customer can hire, you will be asked to establish names for each of your fleets. Each Fleet Name will begin with your Partner Name and will include a Fleet Identifier. Use a Fleet Identifier that is recognizable by your customers.

 **Fleet Details:** For each fleet, you will be asked to identify the fleet type, identify the fleet's service area, select an appropriate revenue category, provide the total number of aircraft, and identify if it is an "internal use only" fleet.<sup>3</sup>

To complete the **Fleet Identification** tab:

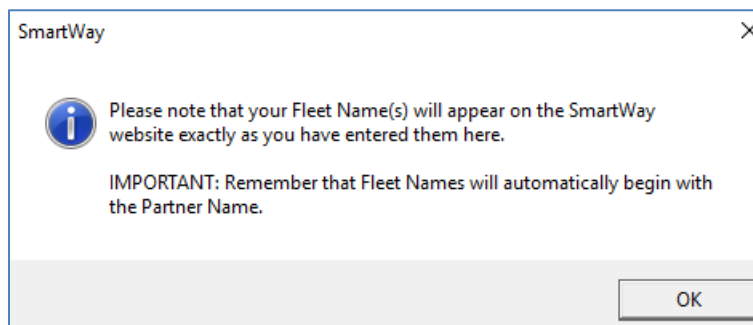
1. On the **Home** screen, select the **Fleet Description(s)** button to display the **Fleet Descriptions** screens.
2. Confirm that the Partner Name that appears automatically is correct and appropriate for your fleet. If not, make changes in the field under the heading "Partner Name."

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<sup>3</sup> Vehicles used only for internal operations should not be listed as separate fleets. Rather, those vehicles' activity should be included along with those of the customer-facing fleet they serve. If these vehicles serve as a distinct internal use fleet whose activity cannot be readily assigned to any one customer-facing fleet, they should be omitted from the tool.

3. Enter the "Fleet Identifier" for your first (or only) fleet. This field may be left blank if you only have one fleet. In this case your final Fleet Name will simply be your Partner Name.
4. Enter additional fleets as needed:
  - a. To enter another fleet, select the **Add Another Fleet** button.
  - b. To delete a fleet, select the box next to the row you wish to delete, and then select the **Delete Checked Rows** button.
  - c. Once you have confirmed or modified the Partner Name and specified the Fleet Identifiers, the full Fleet Names will be displayed on the screen to the right, exactly how they will be displayed on the SmartWay website.
5. To proceed, select the **Fleet Details** tab at the top, or simply select the **NEXT** button at the bottom of the screen.
6. Before moving on, a popup screen will appear asking you to verify that you are satisfied with your fleet name(s).

**Figure 4. Pop up to Verify Fleet Name(s)**



7. Verify that the fleet name(s) show exactly what you want customers to find in the SmartWay website and Carrier Data File.
8. Select **OK** to proceed to the next screen. You may return to this screen later to revise your fleet name(s) if necessary.

For each fleet, you are asked to provide additional details on the **Fleet Details** tab.

1. **Fleet Type:** Fleet types include dedicated freight services, passenger services and mixed freight and passenger services. A fleet is considered a dedicated freight service provider if 75 % or more of their business is associated with shipments of cargo. If 25% or less of a partner's business is associated with shipments of cargo then they are considered primarily passenger service. Airlines where cargo shipments are less than 75 % and greater than 25 % of their business are considered mixed service providers.

2. **Service Area:** The Service Area allows you to differentiate between international services, domestic services including national or regional service areas. If your fleet provides a mixture of international and domestic services, select international.
3. **Revenue Category:** The Revenue Categories allow for future comparisons of similar sized business operations. For this data field, a fleet is considered large if its annual revenues are over \$1 billion; medium if its annual revenue is between \$100 million and \$1 billion; small if its annual revenue is between \$20 and \$100 million; and micro if its annual revenue is less than \$20 million.
4. **Total Number of Aircraft:** For each fleet, identify the number aircraft.
5. **Internal Use Only:** For each fleet, check the 'Internal Use Only' checkbox only if this fleet is used exclusively as part of a composite fleet to be submitted by your company in the SmartWay Logistics tool. Checking the box will only allow the "parent" multimodal carrier to see and select this fleet in the Online Logistics Tool. Leaving this box unchecked will allow all users of the Online Logistics Tool to see and select the fleet. Note: Vehicles used only for internal operations should not be listed as separate fleets. Rather, those vehicles' activity should be included along with those of the customer-facing fleet they serve. If these vehicles serve as a distinct internal use fleet whose activity cannot be readily assigned to any one customer-facing fleet, they should be omitted from the tool.

Please use **Worksheet #2 in Appendix A** of this document to help you prepare your fleet characterization information.





Once you are sure your information is input correctly, you may select the **CREATE FLEET(S)** button at the bottom of the page. You will automatically be returned to the **Home** Screen.


#### STEP 4: SELECTING A FLEET FOR DATA ENTRY

1. Using your mouse, on the **Home** screen select and highlight the name of the fleet for which you wish to enter data.
2. Double click the name; you will then be taken to the **Aircraft Inventory** data entry screen for that fleet.

#### Completing The Aircraft Inventory Screen

This screen asks you to provide information for each aircraft or group of aircraft in your fleet. To complete this screen, you will indicate the number of aircraft in your fleet and then you will need to have the following data on hand:

-  aircraft make
-  aircraft model and series
-  engine make and model
-  engine load percent

-  aircraft weight capacity, in pounds (an estimated value based on your selection for make, model, and series may be provided automatically by the Tool)

Information entered on this screen and the next will allow the Air Tool to accurately calculate emissions from your aircraft fleet by ensuring that the appropriate emission factors are applied. Aircraft Inventory information can be obtained from Bureau of Transportation Statistics (BTS) Form 41, Schedules B43 and T100. The following figures summarize the Air Tool Inputs that may be obtained from BTS forms and may be accessed from the Aircraft Inventory screen by selecting the [Map Values from FAA Data](#) button.

**Figure 5. Map Aircraft Inventory Values from FAA Data**

**AIR TOOL: AIRCRAFT INVENTORY USING SCHEDULE B43 & T100**

**INPUTS TO AIR TOOL:**

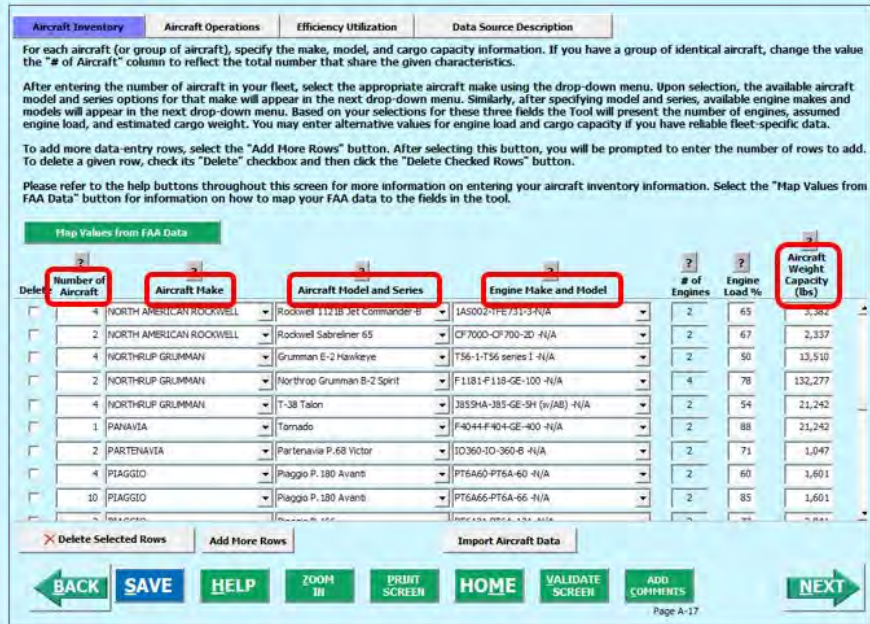
- Number of Aircraft
- Aircraft Make
- Aircraft Model and Series
- Engine Make and Model

**THESE INPUTS MAY BE FOUND USING THE FOLLOWING METHOD:**

- BTS Form 41 Schedule B43, Aircraft Inventory, lists all aircraft in each fleet by N-Number.
- Engine make and model can be found by referencing the N-Number.

**DATA QUALITY TRADEOFFS:**

- Identify real engines utilized with some additional effort

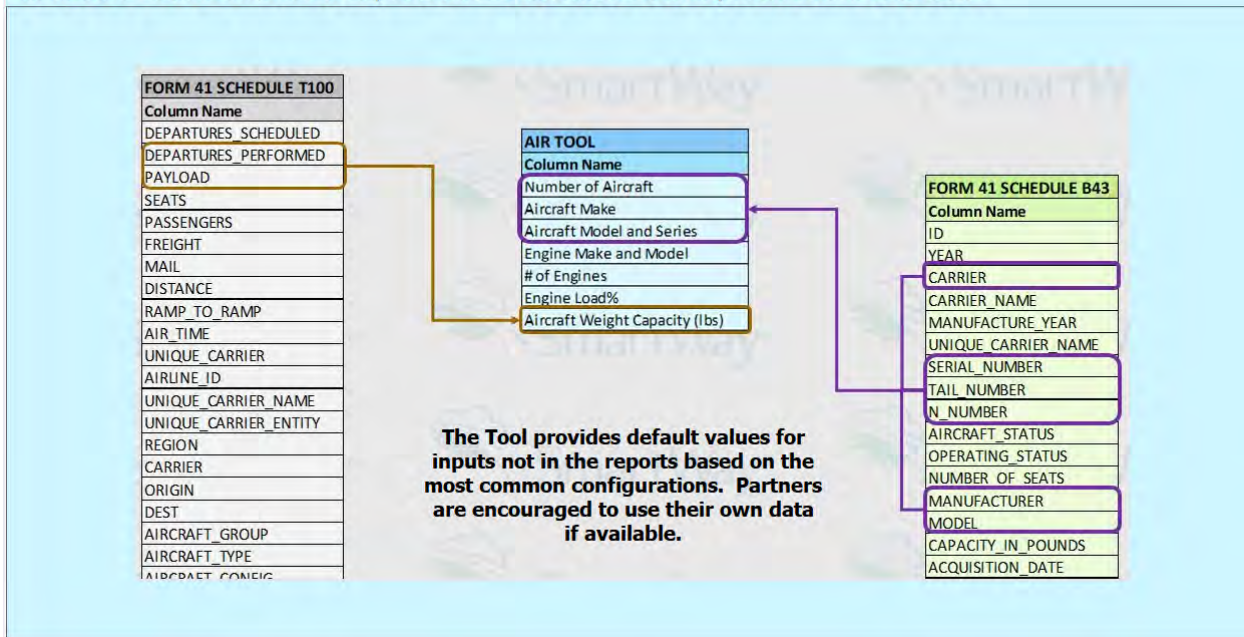


Map Values from FAA Data

Number of Aircraft	Aircraft Make	Aircraft Model and Series	Engine Make and Model	# of Engines	Engine Load %	Aircraft Weight Capacity (lbs)
2	NORTH AMERICAN ROCKWELL	Rockwell 1121B Jet Commander B	IA5002-1FE731-3-N/A	2	65	3,364
2	NORTH AMERICAN ROCKWELL	Rockwell Sabreliner 65	CF700D-CF700-2D -N/A	2	67	2,337
4	NORTHROP GRUMMAN	Grumman E-2 Hawkeye	T56-1-T56 series I -N/A	2	50	13,510
2	NORTHROP GRUMMAN	Northrop Grumman B-2 Spirit	F1181-F118-GE-100 -N/A	4	78	132,277
4	NORTHROP GRUMMAN	T-38 Talon	J855HA-J85-GE-5H (w/AB) -N/A	2	54	21,242
1	PANAVIA	Tornado	F4044-F404-GE-400 -N/A	2	88	21,242
2	PARTENAVIA	Partenavia P.68 Victor	IO360-IO-360-B -N/A	2	71	1,047
4	PIAGGIO	Piaggio P. 180 Avant	PT6A60-PT6A-60 -N/A	2	60	1,691
10	PIAGGIO	Piaggio P. 180 Avant	PT6A66-PT6A-66 -N/A	2	85	1,601

Buttons: BACK, SAVE, HELP, ZOOM III, PRINT SCREEN, HOME, VALIDATE SCREEN, ADD COMMENTS, NEXT

**AIR TOOL: AIRCRAFT INVENTORY USING SCHEDULE B43, SCHEDULE T100 AIRCRAFT MAKE AND MODEL, ENGINE MAKE AND MODEL, & WEIGHT CAPACITY**



To begin, enter the number of aircraft in the "# of Aircraft" column to reflect the total number of aircraft for the given set of aircraft/engine make and model characteristics. *The total number of aircraft entered on this screen must equal the total number specified for this fleet on the Fleet Details screen.*

Keep in mind that you do not have to input a line for every single aircraft -- only for every aircraft/engine combination. So, for example, if you have 25 Boeing 747-400s with Pratt and Whitney PW 40621 turbo fans, you may enter all the information for these 25 aircraft on one line.

After entering the number of aircraft for each row, select the appropriate aircraft make using the drop-down menu. Upon selection, the available aircraft model and series options for that make will appear in the next drop-down menu. Similarly, after specifying model and series, available engine makes and models will appear in the next drop-down menu.

The Air Tool includes over 2,900 possible aircraft/engine combinations. If you do not see your specific aircraft/engine combination, please note this in the comment section (by selecting the [Add Comments](#) button) and then select the aircraft/engine combination that most closely resembles yours.

The Air Tool will automatically populate the number of engines associated with an airframe as well as approximations of the weight capacities per aircraft where available. (If no value is provided, use your best estimates). Weight capacity reflects total passenger, luggage, and cargo weight. As airframe configurations can vary significantly, you should revise the weight capacity estimates with information on your specific fleet.

For passenger aircraft, in your estimate be sure to include the weight associated with passengers, not just the cargo hold. For the weight capacity, use the FAA assumption of 220 pounds per passenger (which includes the weight of the passenger and luggage), and an additional 110 pounds per seat (or per passenger if the number of seats is unknown) to account for the weight of structures and systems to accommodate the passengers.<sup>4</sup> Note that you must then exclude luggage from the cargo component so that it is not double counted.

Finally, enter the average engine load during cruise as a percent (between 0 and 100). If you do not know the average cruising engine load a default value of 70% may be used.

To add more data-entry rows, select the [Add More Rows](#) button. After selecting this button, you will be prompted to enter the number of rows to add.

To delete a given row, check the corresponding box in the Delete column and click the [Delete Checked Rows](#) button.

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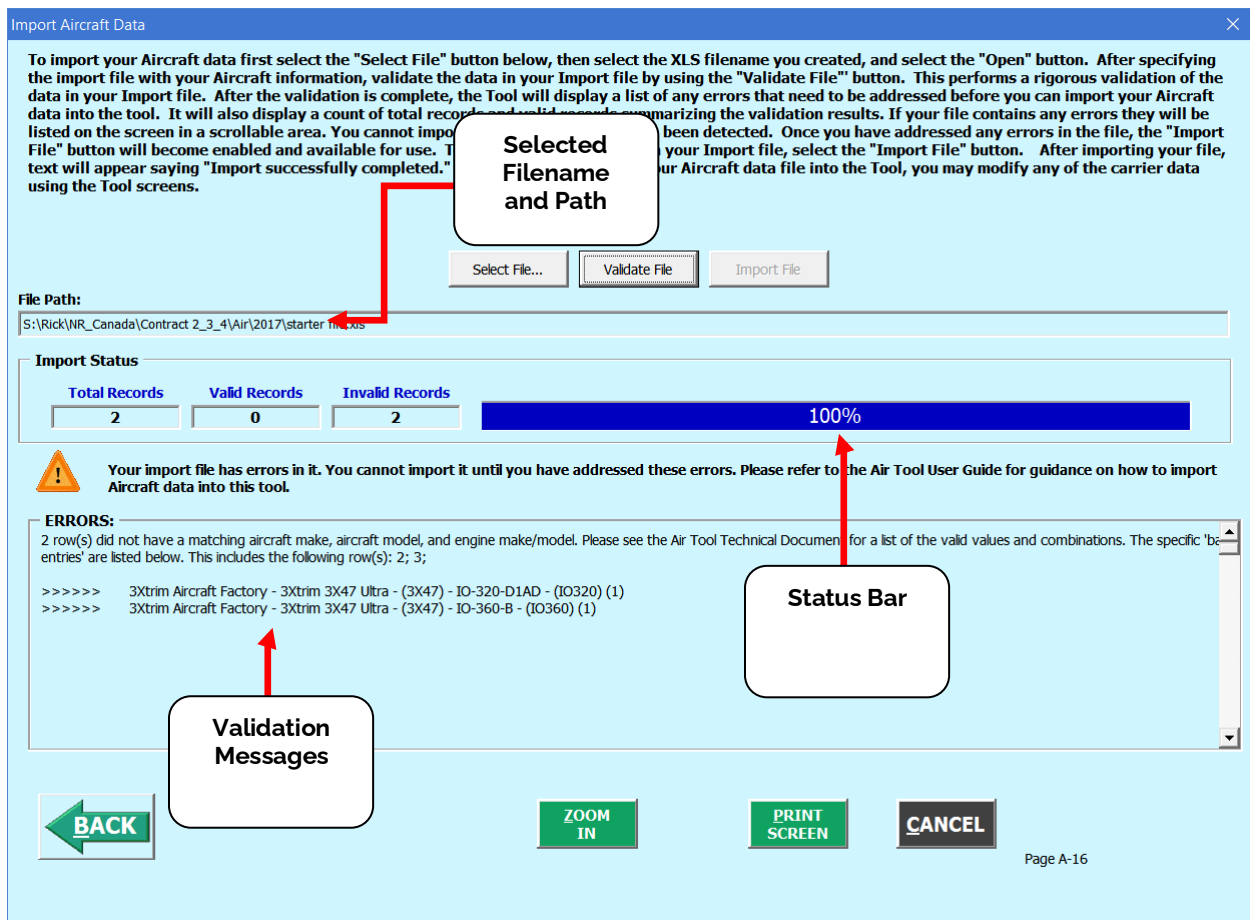
<sup>4</sup> ICAO Carbon Emissions Calculator, Version 5, June 2012



You also have the option of importing your data from an external file, as long as the file meets the pre-determined format.<sup>5</sup> To utilize this option, select the **Import Aircraft Data** button.

Once you select the **Import Aircraft Data** button, the Import Aircraft Data window will be displayed. Press the **Select File** button to open a window that allows you to browse to the location of your import file. Once the import file is selected, the file path and name will be displayed.

**Figure 6. Import Aircraft Data Screen**



Press the **Validate File** button to see any error that may prevent the data from being imported or to confirm that your import file passes all validation for import. Any validation messages are shown in the same window below the **Import Status** section of the window, as shown in the figure above. Once your file has been






<sup>5</sup> The SmartWay Air Tool is also provided with a "starter" Excel file (Air-Tool-Import-Starter-File.xlsx) which can be exported from the **Import Aircraft** screen. This file contains column headers for the required Air Tool input information in the first row. The next rows contain example aircraft records and should be over-written. After adding the required information for your fleet save the file with a different name in a folder of your choosing before importing. Future versions of the Air Tool may include an Export File function to facilitate this process.

validated, press the **Import File** button to import your data. The tool will present a message window informing you once your import has successfully completed. Select the **OK** button to close the windows.

To proceed, select the **Aircraft Operations** tab at the top, or simply select the **NEXT** button at the bottom of the screen.

### Completing The Aircraft Operations Screen

This screen asks you to provide operational information for each aircraft or group of aircraft you identified in the Aircraft Inventory screen. To complete this screen, you will need to have the following data on hand for each aircraft or group of aircraft:

-  fuel type
-  total annual fuel usage (and the units the value is supplied in)
-  total annual miles traveled
-  total annual ton-miles
-  total LTOs and hours of operation

Enter annual amounts for the aircraft associated with each given aircraft/engine combination defined in the **Aircraft Characteristics** tab. For example, if you indicated that you have 25 identical aircraft on the **Aircraft Characteristics** tab, you will need to enter annual amounts that represent the total for all 25 of these aircraft.

Aircraft Operations information can be obtained from Bureau of Transportation Statistics (BTS) Form 41, Schedules P-5.2 and T100. The following figures summarize the Air Tool Inputs that may be obtained from BTS forms and may be accessed from the Aircraft Operations screen by selecting the **Map Values from FAA Data** button.

Figure 7. Map Aircraft Operations Values from FAA Data

**AIR TOOL: AIRCRAFT OPERATIONS**

**INPUTS TO AIR TOOL:**

- Fuel Type
- Total Annual Fuel Usage
- Fuel Units
- Total Annual Miles Traveled
- Total Annual Ton-Miles
- Total Annual LTOs
- Total Annual Hours of Operation

**THESE INPUTS MAY BE FOUND IN:**

- BTS Form 41 Schedule T100
- BTS Form 41 Schedule P-5.2

**DATA QUALITY CHALLENGES:**

- Data are aggregated by Aircraft Type which makes finding the right inputs easy.
- Operations data are not further subdivided by engine type, making data in these schedules difficult to match up to Aircraft Inventory data in Schedule 43.

Aircraft Inventory   **Aircraft Operations**   Efficiency Utilization   Data Source Description

For each row, provide the requested operational information. If the row represents a group of aircraft (rather than a single aircraft), the data must reflect the total annual activity for the entire group. Also, any data item with "Total" in the header must be entered as a total (not average) amount.

To add or delete a row of data, you must return to the Aircraft Inventory tab.

Please refer to the help buttons throughout this screen for more information on entering your aircraft operations information. Select the "Map Values from FAA Data" button for information on how to map your FAA data to the fields in the tool.

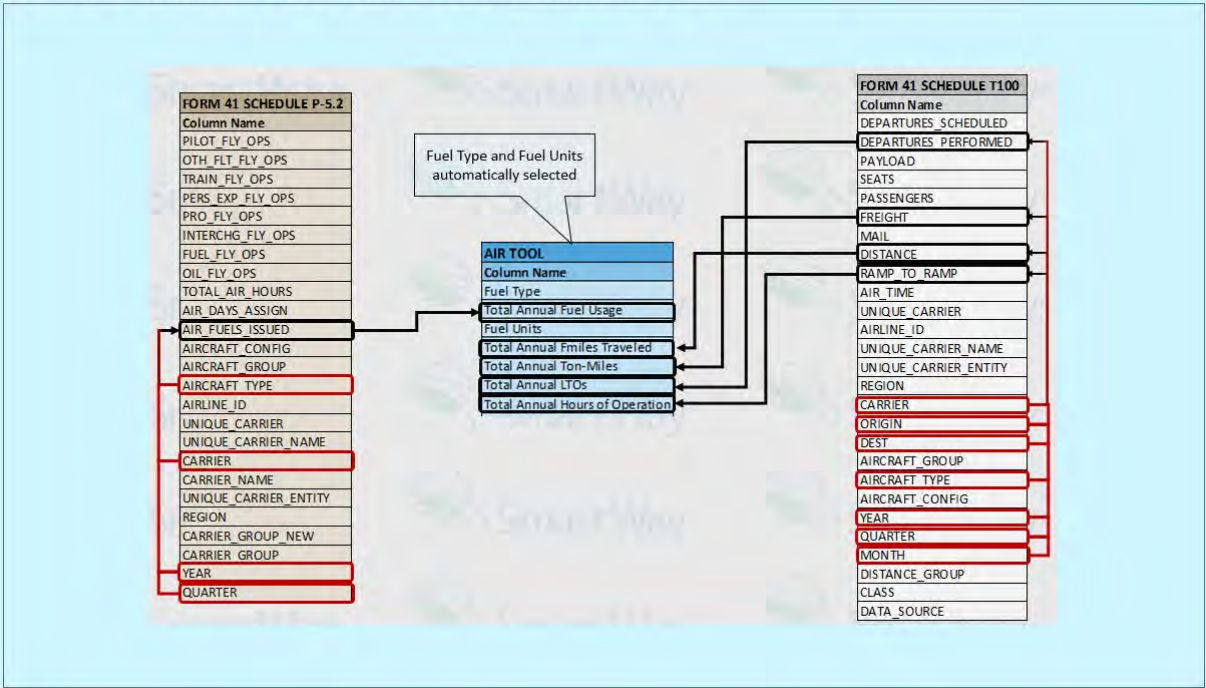
Map Values from FAA Data

Aircraft Type	Number of Aircraft	Fuel Type	Total Annual Fuel Usage	Fuel Units	Total Annual Miles Traveled	Total Annual Ton-Miles	Total Annual LTOs	Total Annual Hours of Operation
1. Airbus A300B2-100 Series	30	Aviation Gasoline	1,000	Gallons	3,000	1,000	74	432
2. Airbus A300B2-100 Series	2	Jet Fuel	100	Tons	300	100	15	333
3. Airbus A300B2-100 Series	2	Aviation Gasoline	13,000	Tons	4,000	6,000	38,545	4,034
4. Airbus A300B2-200 Series	4	Aviation Gasoline	14,000	Gallons	555,555	833,333	5,638	5,164
5. Airbus A300B2-200 Series	1	Aviation Gasoline	15,000	Gallons	444,444	666,666	22,834	2,602
6. Aero Spacelines Super Guppy	2	Jet Fuel	16,000	Gallons	444,444	1,166,666	3,351	2,904
7. Aerospatiale Caravelle 10	4	Aviation Gasoline	17,000	Tons	444,444	133,332	38,921	4,301
8. Aerospatiale Caravelle 10	10	Jet Fuel	18,000	Gallons	9,999	133,332	36,630	4,570
9. Aerospatiale Caravelle 12	2	Aviation Gasoline	19,000	Tons	3,000	1,500	22,834	2,409
10. Aerospatiale Caravelle 12	4	Jet Fuel	20,000	Gallons	300	150	38,277	6,618

← BACK
SAVE
HELP
ZOOM IN
PRINT SCREEN
HOME
VALIDATE SCREEN
ADD COMMENTS
NEXT →

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**AIR TOOL: AIRCRAFT OPERATIONS USING T100 AND P-5.2**



For each row on the Aircraft Operations screen, provide the requested operational information. If a row represents a group of aircraft, rather than a single aircraft, the data must reflect the total annual activity for the entire group, unless otherwise specified. For each row, you will be asked to provide the following:

1. **Fuel Type** – For each aircraft type, select the correct fuel type (Aviation Gasoline or Jet Fuel). Future versions of the tool may include various grades of jet fuel as well as Sustainable Aviation Fuels (SAF).
2. **Total Annual Fuel Usage** – Provide the total annual fuel usage for the aircraft included in the aircraft type for that row.
3. **Fuel Units** – Identify which units the fuel usage is supplied in (Tons or Gallons).
4. **Total Annual Miles Traveled** – Provide the total number of miles traveled by all the aircraft included in the aircraft type for that row.
5. **Total Annual Ton-Miles** – Enter the total ton-miles transported during the reporting year for all aircraft in the given make/model grouping. A ton-mile is one ton of freight moving one mile.

**NOTE: DO NOT ESTIMATE TON-MILES BY SIMPLY MULTIPLYING TOTAL MILES BY TOTAL TON** - this calculation effectively assumes your entire tonnage is transported on **EACH AND EVERY** aircraft and will clearly overstate your ton-miles.

There are two ways to calculate your ton-miles:

- a. Companies can determine their average payload per aircraft grouping, multiply the average payload by the total miles per aircraft group, and sum the results for all flights for the reporting year; or
- b. Set Ton-miles per aircraft group =  $\frac{\text{total mi per group} \times \text{total tons per group}}{\text{total \# of flights per group}}$

To check your data, divide ton-miles by miles. The result is your group-average aircraft payload. If this number is not reasonable, check your calculations.

6. **Total Annual LTOs** – Enter the total number of LTOs for this aircraft grouping for the reporting year. One LTO cycle includes the approach, landing, taxi in, idling, taxi out, take off and climb-out.
7. **Total Annual Hours of Operation** – Enter the total annual hours of operation for this aircraft grouping for the reporting year. This value includes the flight time as well as time spent idling and taxiing to and from gates.
8. To proceed, select the **Efficiency Utilization** tab at the top, or simply select the **NEXT** button at the bottom of the screen.

## Viewing the Efficiency Utilization Screen

The Efficiency Utilization screen displays a summary of the average payload utilization for each of your aircraft types. The calculated weight utilization values should be less than 100%. If any payload information was left blank, "N/A" will appear for that entry. If the calculated values do not look reasonable please revise the entries on the Aircraft Inventory and Aircraft Operations screens, then return to this screen to view the revised utilization estimates.

To proceed, select the **Data Source Description** tab at the top, or simply select the **NEXT** button at the bottom of the screen.

## Completing The Data Source Description Screen

Provide a detailed description of the data sources for the fleet inventory and operational data entered on the previous screens. Some of the aircraft characteristics and operation data should be readily available from Partner records such as the number of aircraft, fuel usage, kilometers traveled, utilization rates, and operations. Aircraft make/model and engine manufacture/model is provided by the aircraft supplier (leasing company if the aircraft is being leased, or manufacturer if participant owns the aircraft). The aircraft supplier can also be helpful providing data on the payload capacity of the aircraft. Alternatively, payload capacity can also be obtained from the Department of Transportation's Bureau of Transportation Statistics (BTS) T-100 dataset as summarized above. The T-100 dataset is also a data source for LTO data. Note the T-100 data are provided to the FAA by the air carriers. An aircraft's flight plans can also be a data source for hours of operation and LTOs.

Select the **HOME** button to return to the **Home** screen.

## SUBMITTING YOUR TOOL TO EPA

1. Select the **Generate a (.xml) data file** button which will open a new screen.
2. Select the checkbox to indicate you understand the terms of the SmartWay Partnership Agreement once again.
3. When ready, select **NEXT** to create a file with the following naming convention:

Air\_PartnerName\_Year\_V0.xml<sup>6</sup>

where PartnerName is your company's name as entered for Step 1 on the **Home** screen, and Year indicates the year for which you are submitting your data; for example:

Air\_ABCompany\_2023\_V0.xml.

---

<sup>6</sup> If you create the XML file multiple times the file name will increment each time (e.g., Air\_ABCompany\_2023\_V1.XML for the second iteration, etc.)

4. Next specify the folder where you would like to save the .xml file, and a screen will appear.
5. Follow these instructions for submitting your .xml and .xslm files to SmartWay. Note that the .xml file is approximately 10 times smaller than the .xslm file.
6. Upon selecting **NEXT**, a screen will appear that allows you to close the Air Tool or return to the **Home** screen.

■ **NOTE: DO NOT ZIP the .xslm and .xml files. Send them to EPA as normal files attached in an e-mail. EPA security will not allow zipped files through the EPA firewall.**

■ **NOTE: DO NOT CHANGE THE NAME OF THE XML OR XLSM FILES.**

**IMPORTANT:** Email servers as well as individual email clients may block or designate incoming email as 'junk mail'. To avoid having SmartWay email blocked or designated as junk email ask your Management Information System staff who manage your email system to place the 'erg.com' domain name on your email system's safe senders list. This is because SmartWay email is currently generated from this domain name and does not match the EPA.gov domain name used by your SmartWay Partner Account Manager. In addition, you should add your Partner Account Manager's email address to your contact list.

Printable data collection worksheets are provided in the Appendix of this document to help you prepare for data entry.

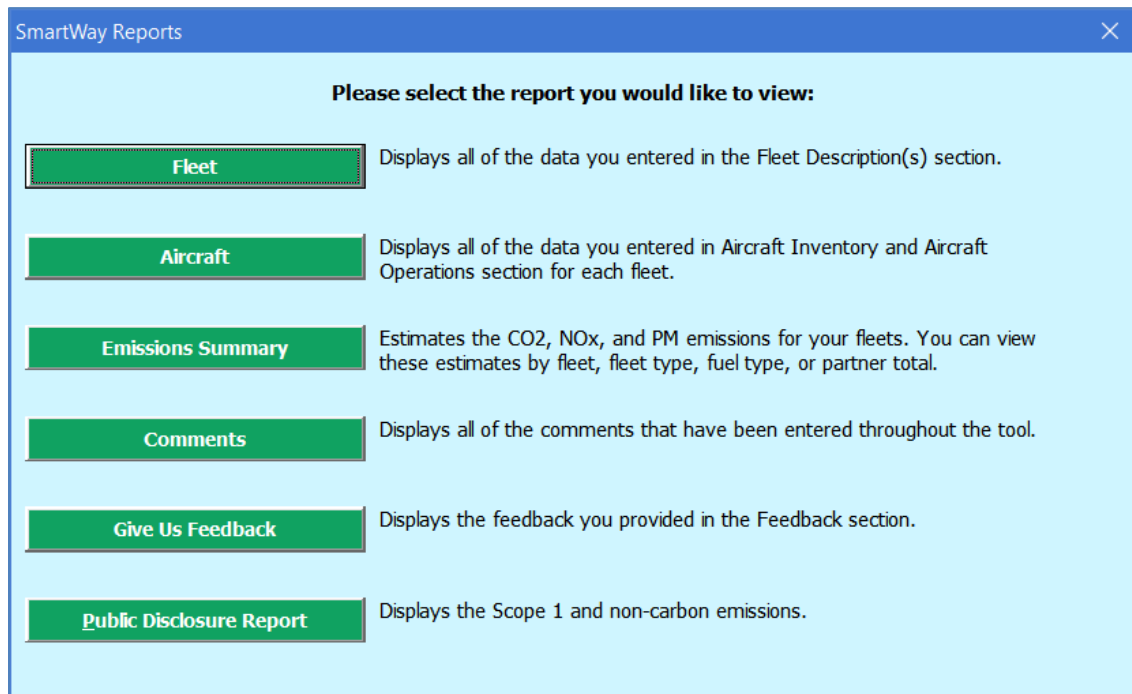
Please visit <https://www.epa.gov/smartway/smartway-air-carriers-tools-and-resources> for additional resources and technical documentation for more in-depth exploration of each section of the Air Tool.

## Results and Summary Reports

The **Reports** section gives you access to six reports to help you understand your data and use it to make better performance decisions. You can access these reports by selecting

**View Your Data Reports** at the bottom of the **Home** screen.

**Figure 8. View Your Data Reports Screen**



The screenshot shows a window titled "SmartWay Reports" with a close button in the top right corner. The main heading inside the window is "Please select the report you would like to view:". Below this heading are six green buttons, each with a label and a corresponding description:

Report Name	Description
Fleet	Displays all of the data you entered in the Fleet Description(s) section.
Aircraft	Displays all of the data you entered in Aircraft Inventory and Aircraft Operations section for each fleet.
Emissions Summary	Estimates the CO <sub>2</sub> , NO <sub>x</sub> , and PM emissions for your fleets. You can view these estimates by fleet, fleet type, fuel type, or partner total.
Comments	Displays all of the comments that have been entered throughout the tool.
Give Us Feedback	Displays the feedback you provided in the Feedback section.
Public Disclosure Report	Displays the Scope 1 and non-carbon emissions.

The **Feedback** section allows you to provide EPA with general feedback regarding the SmartWay program. This information is optional and is not required in order to submit your Air Tool data to EPA. Selecting the **Give us Feedback** button under item #5 on the **Home** screen will open this form.

# Appendix A: Worksheets for Data Collection

## WORKSHEET #1: CONTACT INFORMATION

#1. Enter your Contact Information:

### GENERAL COMPANY CONTACT INFORMATION

Company Name							
Headquarters Mailing Address							
City		State/Province		Zip		Country	
Main Phone Number		Toll-free Number		Cell number		Web Address	

### WORKING CONTACT INFORMATION

Working Contact Name							
Working Contact Mailing Address							
City		State/Province		Zip		Country	
Working Contact Phone Number				Email Address			

### EXECUTIVE CONTACT INFORMATION

Executive Contact Name							
Executive Contact Mailing Address							
City		State/Province		Zip		Country	
Executive Contact Phone Number				Email Address			



**SUSTAINABILITY CONTACT INFORMATION**

<b>Sustainability Contact Name</b>							
<b>Sustainability Contact Mailing Address</b>							
<b>City</b>		<b>State/Province</b>		<b>Zip</b>		<b>Country</b>	
<b>Sustainability Contact Phone Number</b>				<b>Email Address</b>			

**OTHER CONTACT INFORMATION**

<b>Other Contact Name</b>							
<b>Other Contact Mailing Address</b>							
<b>City</b>		<b>State/Province</b>		<b>Zip</b>		<b>Country</b>	
<b>Other Contact Phone Number</b>				<b>Email Address</b>			
<b>Contact's role in program</b>							

## WORKSHEET #2: FLEET CHARACTERIZATION

Complete this worksheet for each fleet you will be submitting in the Air Tool.

**Specify Fleet Name:** This will be a combination of your Partner Name and a Fleet Identifier you create. Use a Fleet Identifier that a company hiring your fleet would recognize. Enter it exactly as it should appear on the SmartWay website:

Partner Name \_\_\_\_\_

Fleet Identifier (suffix) \_\_\_\_\_

### FLEET TYPE (SELECT ONE):

\_\_\_\_\_ Dedicated Freight

\_\_\_\_\_ Mixed Operations

\_\_\_\_\_ Passenger

### SERVICE AREA (SELECT ONE):

\_\_\_\_\_ International

\_\_\_\_\_ National

\_\_\_\_\_ Regional

### REVENUE CATEGORY (SELECT ONE):

\_\_\_\_\_ Large (> \$1B)

\_\_\_\_\_ Medium (\$100M - \$1B)

\_\_\_\_\_ Small (\$20M - \$100M)

\_\_\_\_\_ Micro (< \$20M)

### INTERNAL USE ONLY?

\_\_\_\_\_ Yes      \_\_\_\_\_ No

Total Number of Aircraft \_\_\_\_\_

### WORKSHEET #3: AIRCRAFT INVENTORY AND OPERATIONS

Complete this worksheet for each fleet you will be submitting in the Air Tool. Make multiple copies of the table below to enter all aircraft in the fleet if needed.

Air Fleet Name: \_\_\_\_\_

<b>Number of Aircraft</b>	
<b>Aircraft Make</b>	(selection list available from EPA upon request)
<b>Aircraft Model and Series</b>	(selection list available from EPA upon request)
<b>Number of Engines</b>	
<b>Average Engine Load</b>	
<b>Cargo Weight Capacity</b>	(default value provided, user option to change)
<b>Fuel Type</b>	(aviation gasoline, jet fuel)
<b>Total Annual Fuel Usage</b>	
<b>Fuel Units</b>	(gallons, tons)
<b>Total Annual Miles Traveled</b>	
<b>Total Annual Ton-Miles</b>	
<b>Total Annual LTOs</b>	
<b>Total Annual Hours of Operation</b>	





For more information:

U. S. Environmental Protection Agency  
Office of Transportation and Air Quality  
1200 Pennsylvania Ave. NW  
Washington, DC 20460  
(734) 214-4333

<https://www.epa.gov/>

U. S. Environmental Protection Agency  
National Vehicle and Fuel Emissions Laboratory  
2565 Plymouth Rd.  
Ann Arbor, MI 48105  
(734) 214-4200

<https://www.epa.gov/transportation-air-pollution-and-climate-change>