



Updated: Request for Information

Aviation Climate-Aligned Finance Working Group

March 28th, 2023

Summary of Request

The Aviation Climate-Aligned Finance (CAF) Working Group is an initiative comprising of six global financial institutions - Bank of America, BNP Paribas, Citi, Credit Agricole, Societe Generale, and Standard Chartered - facilitated by the Rocky Mountain Institute (RMI). As facilitator of the working group, RMI is seeking information on potential third-party providers of emissions and traffic data within the aviation sector. The CAF Working Group is in the process of developing a framework for financial institutions seeking to measure the alignment of their aviation lending portfolios with a 1.5°C benchmark, in consultation with experts, industry, and other financial institutions. This process is based on prior initiatives in the Poseidon Principles for international shipping and the Sustainable Steel Principles, and is being organized by RMI, which provides facilitation and expert support.

In order for financial institutions to measure and disclose the 1.5°C alignment of their portfolio's emissions intensity under the framework, participating institutions will require access to the following data (self-reported or estimated) for their counterparties:

- (1) The annual fuel consumption/CO₂e emissions of aircraft
- (2) The annual total traffic generated by aircraft in Revenue Tonne Kilometers, inclusive of passenger, belly cargo, and dedicated cargo operations

This data will be required both at the annual aircraft-model average level and at the annual full-fleet (corporate) average level (see definitions below).

The Working Group intends to develop self-reporting guidelines to source required data directly from clients where available. For instances where client-reported data is not available, the Working Group is evaluating the use of third-party provider data to ensure full reporting coverage of portfolios. The purpose of this RFI is to identify the availability of third-party commercial data suitable for implementing the reporting methodology.

As facilitator of the Working Group, RMI is seeking detailed information on the availability, accuracy, and suitability of potential commercial offerings. To be evaluated favorably, commercial offerings should match the requirements of the methodology, which has been developed through an extensive multi-stakeholder process. Ideal responses will address all requested data elements; however, providers with services specific to either emissions or traffic are also invited to provide responses covering only those categories.

Responses to this RFI may comprise of up to three components:

1. A written response to the questions contained within this RFI
2. A sample of data for an example portfolio, to be distributed to respondents as a follow-up upon confirmation of interest in providing sample data
3. Optionally, a live demonstration of respondent's tool or platform, to be scheduled as a follow-up upon confirmation of interest in providing a demonstration

RMI and the Working Group will evaluate responses to this RFI to determine which data providers meet the requirements of the CAF methodology, and are suitable for use by financial institutions seeking to implement the CAF framework. More detailed information on the response and evaluation process is contained in subsequent sections.

About RMI

RMI decarbonizes energy systems through rapid, market-based change in the world's most critical geographies to align with a 1.5°C future and address the climate crisis. A global, non-partisan, non-profit organization, RMI works with businesses, policymakers, communities, and other organizations to identify and scale energy system interventions that will cut greenhouse gas emissions at least 50% by 2030.

For nearly 40 years, RMI has utilized unique techno-economic expertise and whole-systems thinking to publish groundbreaking research and analysis. RMI brings together collaborations of rare reach, range, and expertise—creating unconventional partnerships and mobilizing action to drive change on the massive scale needed to combat the climate crisis. RMI has undertaken significant work in enabling decarbonization across key sectors, including electricity generation, buildings, transport, and heavy industries. RMI has previously facilitated financial-sector initiatives to clarify and implement net-zero ambitions in hard-to-abate sectors, including the development of the Poseidon Principles for international shipping and the Sustainable Steel Principles.

Since April 2022, RMI has acted as facilitator to the six global financial institutions which comprise the Aviation Climate Aligned Finance Working Group and is administering this RFI in its capacity as Working Group facilitator. For more information, visit www.RMI.org.

Definitions

Aircraft Model

At several points, this RFI specifies that data should be averaged at the “aircraft model” level. Aircraft model is defined as the ICAO code for the aircraft, differentiated by whether it is a passenger or freighter variant.¹ For instance, a passenger Airbus A319 and passenger Airbus A319 (Sharklets) would be considered the same aircraft model (ICAO code A318). However, a Boeing 737-800 and Boeing 737-800 (Freighter) would not be considered the same aircraft model, as while they share an ICAO code (B738), one is a passenger variant, and one is a freighter variant. Any data request within the RFI which specifies aircraft-model level calculations should be performed using this ICAO Code + Passenger/Freighter Designation definition.

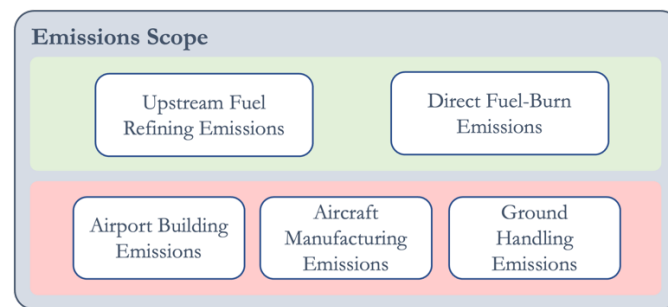
¹ <https://www.icao.int/publications/DOC8643/Pages/default.aspx>

Airline

At several points, the RFI specifies that data should be averaged at the “airline” level. In the majority of cases, the airline is to be defined by the financial institution user who is accessing data, based on the counterparty of the financing in question. This may occur at the level of a carrier group with multiple operationally independent subsidiaries (i.e. International Airlines Group), or down to the specific AOC (i.e British Airways). In cases where the relevant airline is not defined by the user, for instance when establishing the lessee airline of a lessor-owned aircraft, respondents should attempt to identify the airline which exercises primary operational control over the aircraft in question.

Emissions Boundary

Questions relating to the emissions of an aircraft or fleet include the full lifecycle (well-to-wake) emissions associated with the production and combustion of jet fuel. Emissions from aircraft manufacturing, ground operations, airport facilities, or other non-fuel emissions are excluded.



Sector Boundary

References to the “aviation sector” or “aviation industry” refer to commercial operations by passenger and dedicated cargo aircraft. Military aircraft, general civilian aircraft, private chartered aircraft, and corporate jets are excluded from the scope of this RFI, and no data on these forms of activity is required.

Primary Data Requirements

The following sections enumerate each category of data required for the implementation of the CAF framework.

Emissions Data

Participating financial institutions must be able to calculate the total annual emissions associated with each item of financing within their aviation portfolio, including financing to airlines and lessors. In instances where financing is directly connected to specific aircraft, financial institutions must be able to calculate average annual emissions associated with aircraft of that model operated by the relevant airline. In instances where financing is not directly connected to specific aircraft, financial institutions must be able to calculate annual emissions associated with the full fleet of the counterparty airline or lessor.

The Aviation CAF methodology specifies the use of standardized well-to-wake emissions coefficients and adjustments due to sustainable aviation fuel purchases. Ideal responses will provide emissions calculations on a well-to-wake (WTW) basis, with the ICAO standard emissions coefficient of

89gCO₂e/MJ Jet A1, or 3.84gCO₂e/g Jet A1.²³ If well-to-wake calculations are not possible, respondents are encouraged to provide direct estimates of fuel consumption in metric tonnes, rather than provide tank-to-wake emissions estimates.

1. Aircraft-Model-Average (Airline and Lessor Financing)

Description: Annual average WTW CO₂e/fuel consumption for aircraft of the specified model operated by the relevant airline in the reporting year, in metric tonnes. See definitions section for aircraft model.

In the case of financing provided directly to airlines, the relevant airline is the airline counterparty. In the case of financing provided to a lessor, the relevant airline is the lessee of the aircraft in the reporting year. In the case that an aircraft has multiple lessee airlines in a reporting year, the estimate should ideally be prorated based on duration of operational control in the reporting year. If prorating is not possible, respondents should indicate this in the relevant question below (question 1).

Example: “Aircraft of Model X operated by Airline Y in reporting year 2021 produced an average of N metric tonnes of CO₂e on a WTW basis”

2. Full-Fleet Total (Airline Financing)

Description: Total annual average WTW CO₂e/fuel consumption for all aircraft operated by the specified airline in the reporting year, in metric tonnes.

Example: “Aircraft operated by Airline Y in reporting year 2021 consumed a total of N metric tonnes of CO₂e on a WTW basis”

3. Full-Fleet Total (Lessor Financing)

Description: Total annual WTW CO₂e/fuel consumption for all aircraft owned by the specified lessor, as calculated according to the aircraft-airline-model average method specified above. This figure should be calculated as the sum of all aircraft-level values, as they would be estimated using the operating airline aircraft-model average method detailed above. This figure should not be calculated by directly summing MSN-level estimates for all aircraft owned by the lessor.

Example: “The sum of all aircraft-level estimates (using the aircraft-model-average method) owned by Lessor Z in reporting year 2021 is N metric tonnes of CO₂e on a WTW basis.”

Traffic Data

Participating financial institutions must be able to calculate the total traffic associated with each item of financing within their aviation portfolio, including financing to airlines and lessors. In instances where financing is directly connected to specific aircraft, financial institutions must be able to calculate average annual traffic associated with aircraft of that model operated by the relevant airline.

² ICAO. (2022). *CORSIA Methodology for Calculating Actual Life Cycle Emissions Values*. Pg 21.

https://www.icao.int/environmental-protection/CORSIA/Documents/CORSIA_Eligible_Fuels/ICAO%20document%2007%20-%20Methodology%20for%20Actual%20Life%20Cycle%20Emissions%20-%20June%202022.pdf

³ Per-MJ emissions coefficient converted to grams-per-gram with a lower heating value of 43.2 for Jet A1. This LHV value was selected to match the methodology of the Mission Possible Partnership’s Aviation Transition Strategy.

Traffic metrics should be expressed in Revenue Tonne Kilometers (RTKs) and be inclusive of belly cargo for passenger operations and all cargo for dedicated freighters, ideally with these categories calculated separately. The use of average load factors in calculating traffic is expected.

4. Aircraft-Model-Average (Airline and Lessor Financing)

Description: Average annual RTKs in the specified category (see below) generated by aircraft of the given model, operated by the relevant airline. See definitions section for aircraft model.

In the case of financing provided directly to airlines, the relevant airline is the airline counterparty. In the case of financing provided to a lessor, the relevant airline is the lessee of the aircraft in the reporting year. In the case that an aircraft has multiple lessee airlines in a reporting year, the estimate should be pro-rated based on duration of operational control in the reporting year.

Example: “Aircraft of Model X operated by airline Y in reporting year 2021 generated an average of N RTKs from commercial passenger operations”

4A. Passenger

Description: RTKs generated by the transport of paying passengers, with an assumed RPK to RTK conversion factor of 100kg (inclusive of passenger luggage).

4B. Belly Cargo

Description: RTKs generated by the transport of paying cargo in the belly hold of passenger aircraft, excluding passenger luggage.

4C. Dedicated Cargo

Description: RTKs generated by the transport of paying cargo on dedicated cargo aircraft.

5. Full-Fleet Total (Airline Financing)

Description: Total annual RTKs in the specified category (see above) generated by all aircraft operated by the specified airline.

Example: “Aircraft operated by Airline Y in reporting year 2021 produced a total of N RTKs from passenger traffic”

6. Full-Fleet Total (Lessor Financing)

Description: Total annual RTKs generated by all aircraft from the specified category, owned by the specified lessor, *as calculated according to the aircraft-airline-model average method specified above*. This figure should be calculated as the sum of all aircraft-level values, as they would be estimated in response to data question 1. This figure should not be calculated by directly summing MSN-level estimates for all aircraft owned by the lessor.

Example: “The sum of all aircraft-level estimates (using the aircraft-model-average method) owned by Lessor Z in reporting year 2021 is N RTKs from passenger traffic.”

Respondent Questions:

Please include responses to each of the questions below in response to this RFI. In cases where questions include multiple categories of data, please indicate which answers correspond to which categories of data.

Core Data Requirements:

1. For each of the data categories enumerated above (1-6), is respondent able to provide the requested data? If not, what is the closest format available?
2. In cases of emissions data (categories 1-3), what is the method of calculation/estimation?
 - a. What is the primary method of calculation/estimation?
 - b. Are any adjustments made after the primary calculation/estimation? If so, how?
 - c. What is the full list of factors which impacts the calculation/estimation? (i.e. airframe age)
3. In cases of emissions estimation (categories 1-3), is respondent able to provide data in well-to-wake format? If not, in tonnes of fuel?
4. Is respondent able to identify purchases of sustainable aviation fuel at the airline level, by type of fuel?
5. In cases of traffic data (categories 4-6) what is the method of calculation/estimation? Please specify separately for passenger, belly cargo, and dedicated cargo
 - a. What external data sources are used for establishing aircraft capacity? (i.e., manufacturer seating configuration)
 - b. Are load factors used for converting capacity to traffic? If yes, what load factors are used? (i.e., airline-average passenger load factor)
 - c. If load factors are used, how are they sourced?
 - d. Are alternative load factors available for use in estimation?
6. In cases where an aircraft is owned by a lessor, is respondent able to identify the operating airline?
7. In cases where ownership or operational control of an aircraft is transferred during a calendar year, is respondent able to identify the length of ownership or operational control associated with each airline and/or lessor?
8. In cases where an airline is specified, is the respondent able to identify the full set of aircraft operationally linked to the airline (i.e. including subsidiaries)?
 - a. If so, how is this identification accomplished?
 - b. Is not, what additional information would be required from users to enable full-fleet totals to be calculated?
9. In cases where a lessor is specified, is the respondent able to identify the full set of aircraft owned by that lessor (i.e. including special-purpose vehicles)?
 - a. If so, how is this identification accomplished?
 - b. Is not, what additional information would be required from users to enable full-fleet totals to be calculated?

Data formatting and availability

10. What input data is required from users for estimates to be produced (i.e., aircraft MSNs/tail numbers, hours, and cycles)? If this differs by data category, please specify for all available data.
11. In what format is output data available? If this differs by data category, please specify for all available data.
12. At what point in the calendar year following the reporting year is data available, i.e., in what month of 2023 are annual totals from 2022 able to be calculated?

Validation

13. Does respondent wish to provide any accuracy or validation information for any data offerings?
If so, please append to this RFI response.
14. Is respondent willing to provide sample data for a limited example portfolio constructed by RMI, to be used confidentially for internal evaluation? If so, please indicate that RMI should distribute the example portfolio to respondent.
15. Is respondent willing to provide a live demonstration of the data tool to RMI, to be performed on a set of test data not provided in advance of the demonstration? If so, please indicate the best way for RMI to schedule a demonstration call.

Response Content and Timeline

Respondents should include in their reply:

1. A written statement which includes answers to each of the questions listed above, or clear indication of sections of the RFI which the respondent does not intend to address
2. Any accompanying material as indicated by question 12
3. Indication of whether respondent is willing to provide data responses for a sample portfolio, to be distributed by RMI upon confirmation of interest
4. Indication of whether respondent is willing to provide a live demonstration of the data reporting tool or process, to be scheduled by RMI upon confirmation of interest
5. Name, position, and contact information of person who is authorized to represent the respondent

Responses will be evaluated on up to three components:

1. Primary written response to the RFI
2. Sample data responses for example portfolio, if respondent opts to provide them
3. Live demonstration of the data reporting tool, if respondents opt to provide one

Respondents who wish to provide sample data and/or a live demonstration should indicate this to RMI, with example portfolio distribution and demonstration sessions to commence after April 1st.

Responses, including all supporting documents, should be written in English. Supporting documents may be in another language, provided they are accompanied by an accurate translation of the relevant passages in English.

Information on pricing or commercial terms should not be included in any responses to this RFI.

RMI is aware that information contained in a response may indicate a respondent's current operations and may be confidential. Therefore, RMI requests that any confidential information in a response be clearly identified as such and RMI will treat it as such.

Timeline

The RFI will remain open from March 20th through April 14th. Responses are accepted at any time during this period. Sample data and live demonstrations will continue to be accepted after April 14th.

Contacts

All questions and responses should be addressed by electronic mail to the contacts below. Informational calls are available to any respondent upon request during the response period.

Jolene Verheije

Manager, RMI

Center for Climate-Aligned Finance

jverheije@rmi.org

Nicholas Halterman

Senior Associate, RMI

Center for Climate-Aligned Finance

nhalterman@rmi.org

Meghan Morgan

Associate, RMI

Center for Climate-Aligned Finance

meghanmorgan@rmi.org

Evaluation

RMI and the Aviation CAF Working Group will evaluate responses to the RFI, including sample data and live demonstration if provided, to establish the quality of data offerings and their suitability for use in fulfilling the requirements of the aviation CAF framework.

Evaluation Criteria

Responses to this RFI will be evaluated according to the following primary considerations:

- *Ability to provide data as described in the primary requirements section, with responses that cover the full range of data requests evaluated more favorably (note that submissions which cover either the full range of emissions or full range of traffic data are still encouraged)*
- *Timeliness of data availability within the reporting year, with earlier availability of data evaluated more favorably*
- *Quality of data, with respondents which participate in the example portfolio process evaluated more favorably*
- *Use of fuel and traffic calculations which rely on direct modeling of aircraft performance and activity*
- *Use of granular load factors in estimating traffic, with airline or airline-aircraft-model load factors preferred for passenger estimation, and aircraft-model or airline-aircraft-model load factors preferred for cargo estimation*
- *Level of user-supplied data required to produce data*
- *Ability of provider to identify relevant ownership and control information, such as the full set of aircraft operated by a carrier group or owned by a lessor*
- *Usability of the platform and data, including navigability of any user-facing interface, and accessibility of output data*

Evaluation Process

RMI and the Aviation CAF Working Group shall have full discretion in evaluating the content of responses. No commercial award shall be given as the direct result of this Request for Information process.

Information provided in RFI responses will be shared with members of the Aviation CAF Working Group for the purposes of evaluation. The purpose of this evaluation will be to establish whether data providers meet the requirements of the CAF methodology, and are suitable for use by financial institutions intending to measure their aviation portfolio emissions intensity in accordance with the CAF framework.