

Final report

# 2022 Greenhouse Gas (GHG) accounting report

Red Wing Aviation

Reporting Period 01/01/2022 to 31/12/2022

October 2023



## Details

Prepared for:

**Red Wing Aviation LLC**

W7141 148th Avenue · Bay City · WI 54723

redwingav.com

**Prepared by:**

**South Pole Carbon Asset Management Ltd. (South Pole)**

Technoparkstrasse 1 · 8005 Zurich · Switzerland

southpole.com

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**Contact person:**

Agnieszka Kwolek,  
Business Development Manager,  
a.kwolek@southpole.com

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## Acronyms and abbreviations

CH <sub>4</sub>	Methane
CO <sub>2</sub>	Carbon dioxide
tCO <sub>2</sub> e	Tonnes of carbon dioxide equivalent
GHG	Greenhouse gases
HFCs	Hydrofluorocarbons
kg	Kilogram
MWh	Megawatt hour
N <sub>2</sub> O	Nitrous oxide
t	tonne
UNFCCC	United Nations Framework Convention on Climate Change
RWA	Red Wing Aviation
US	United States
WFH	Work-From-Home
GJ	Gigajoules
CEDA	Comprehensive Environmental Data Archive
BEIS	UK Department for Business, Energy & Industrial Strategy

## Executive summary

The present summary provides an overview of Red Wing Aviation's (RWA) operational greenhouse gas (GHG) emissions for the 2022 calendar year, based on its reported data.

An operational control approach was taken for this accounting exercise, meaning emissions for all activities conducted under the control of RWA were calculated, using a combination of primary and extrapolated data.

A breakdown of emissions and relevant analysis is provided in this report for key sources of emissions, as per the categorisation specified in the GHG Protocol. All assumptions, data challenges, extrapolations, and limitations are described within this report and its annexes.

The office considered in the accounting is located in Wisconsin, United States (US).

Based on the data provided by RWA, the total GHG reported emissions for the year 2022 are estimated to be **29,791.12** tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e). This represents a 210.96% increase in emissions from 2021 mainly driven by higher aviation fuel consumption (from 1,400,184.48 litres in 2021 to 9,274,629.97 litres in 2022). Scope 1 emissions from the combustion of aviation fuel was the largest contributor to the footprint, and accounted for 22,536.52 tCO<sub>2</sub>e, 75.65% of total emissions.

Key performance indicators (KPIs) are found in Table 1 and an overview of GHG emissions by source is given in Table 2. The emissions intensity of RWA has increased from 206.03 tCO<sub>2</sub>e per employee in 2021 to 397.21 tCO<sub>2</sub>e per employee in 2022 due to greater total emissions. The same for emissions per m<sup>2</sup>, from 21.48 tCO<sub>2</sub>e per m<sup>2</sup> in 2021 to 46.40 tCO<sub>2</sub>e per m<sup>2</sup> in 2022.

Please note that, due to rounding of numbers, the figures in the tables in this report may not add up exactly to the totals provided.

**Table 1: Summary of key performance indicators (KPIs)**

<b>Number of employees</b>	75	<b>tCO<sub>2</sub>e/employee</b>	397.21
<b>Premises area (m<sup>2</sup>)</b>	642	<b>tCO<sub>2</sub>e/ m2</b>	46.40

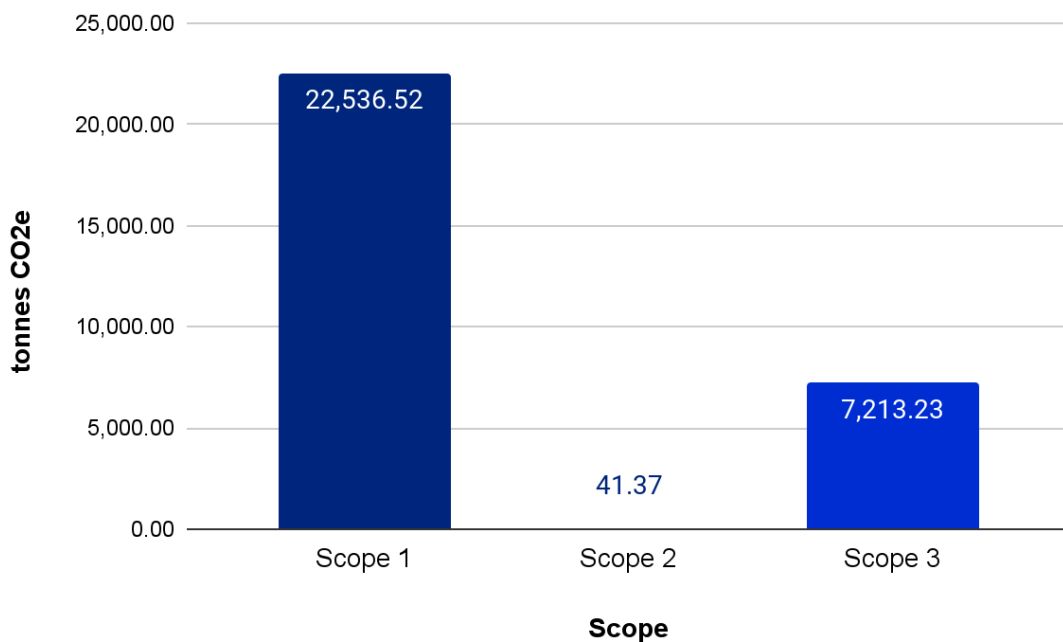
(Source: South Pole, based on RWA data, 2023)

**Table 2: GHG emissions by scope and greenhouse gas**

Scope	Total (tCO <sub>2</sub> e)	Percentage of total (%)
Scope 1: direct GHG emissions	22,536.52	75.65%
Scope 2: indirect GHG emissions (market-based)	41.37	0.14%
Dual reporting Scope 2: indirect GHG emissions (location-based <sup>1</sup> )	41.37	-
Scope 3: other indirect GHG emissions	7,213.23	24.21%
Total GHG emissions (market-based)	29,791.12	100%

(Source: South Pole, based on RWA data, 2023)

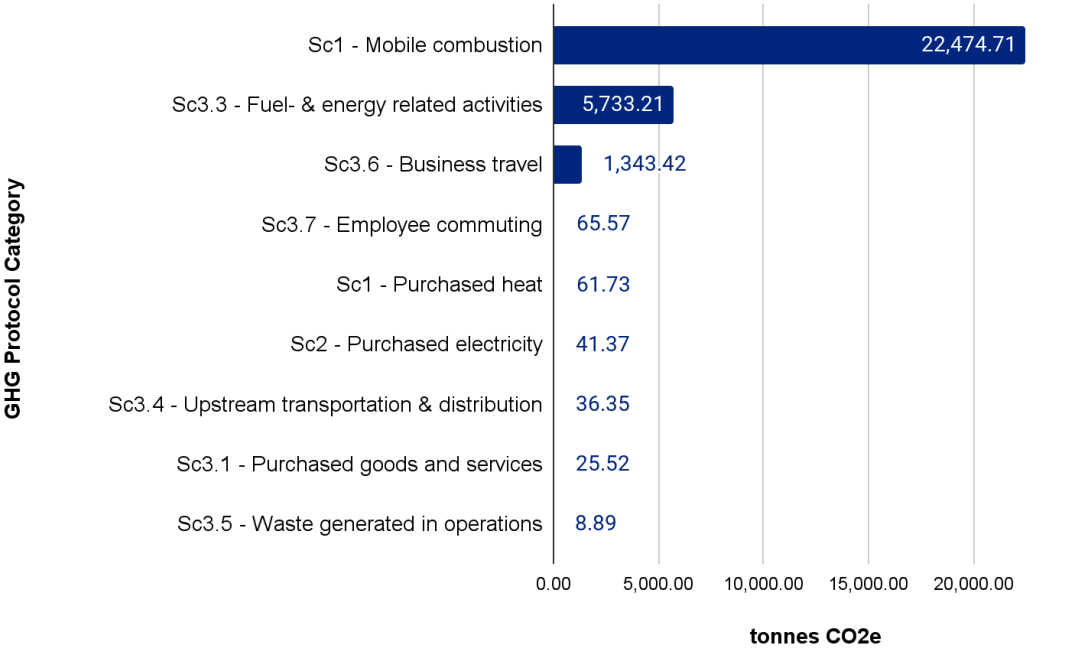
As a residual mix emission factor in the US is not available, the same emission factor used for location-based estimation has been applied, in line with the GHG Protocol Scope 2 Guidance.



**Figure 1: GHG emissions in 2022 by scope**

(Source: South Pole, based on RWA data, 2023)

<sup>1</sup> A location-based method reflects the average emissions intensity of grids on which energy consumption occurs (using mostly grid-average emission factor data). A market-based method reflects emissions from electricity that companies have purposefully chosen (or their lack of choice): it derives emission factors from contractual instruments, which include any type of contract between two parties for the sale and purchase of energy bundled with attributes about the energy generation or for unbundled attribute claims (e.g. RECs, GOs, etc.).



**Figure 2: RWA’s total footprint by GHG Protocol category**  
(Source: South Pole, based on RWA data, 2023)



## Introduction

Vista Global Holding Limited (Vista), the world's leading global private aviation group, has previously undertaken GHG inventories for 2019, 2020 and 2021. Red Wing Aviation was included in the 2021 inventory. This report provides an account of the GHG emissions from Red Wing Aviation's global operations from 1st January 2022 to the 31st December 2022, based on reported data by the client. It includes an analysis of key sources of emissions, as well as targeted recommendations focused on data improvement and decarbonisation.

Company information and the reporting period are presented in Table 3.

**Table 3: Company information**

Company information	
Website	www.redwingav.com
Business sector	Private aviation company
Reporting period	January 1 to December 31, 2022

(Source: South Pole, based on RWA data, 2023)

## Methodology

The GHG accounting and reporting procedure is based on the 'The Greenhouse Gas Protocol: GHG Protocol: A Corporate Accounting and Reporting Standard – Revised Edition' (GHG Protocol) and the complementary 'Corporate Value Chain (Scope 3) Accounting and Reporting Standard' – the most widely used international accounting tools for government and business leaders to understand, quantify, and manage GHG emissions. The standards were developed in partnership between the World Resources Institute and the World Business Council for Sustainable Development.

All accounting is based on the principles of the 'GHG Protocol':

- **Relevance:** establishing an appropriate inventory boundary that reflects the GHG emissions of the company and serves the decision-making needs of users;
- **Completeness:** including all emission sources within the chosen inventory boundary. Any specific exclusion is disclosed and specified;
- **Consistency:** ensuring meaningful comparison of information over time and transparently documented changes to the data;
- **Transparency:** guaranteeing data inventory sufficiency and clarity, where relevant issues are addressed in a coherent manner; and
- **Accuracy:** minimising uncertainty and avoiding systematic over- or under-quantification of GHG emissions.

## Global warming potential (GWP)

Global warming potential (GWP) is a measure of the climate impact of a GHG compared to carbon dioxide over a time horizon. GHG emissions have different GWP values depending on their efficiency at absorbing longwave radiation, and the atmospheric lifetime of the gas. The GWP values used in GHG accounting include the six GHGs covered by the United Nations Framework

Convention on Climate Change (UNFCCC) and Kyoto Protocol, as presented in Table 4. These are the GWP used by the United Kingdom Department for Business, Energy and Industrial Strategy (BEIS) and are based on the 'Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report (AR5), unless otherwise stated.

**Table 4: Applied global warming potentials (GWPs)**

GHG	GWP (100 years)
Carbon dioxide (CO <sub>2</sub> )	1
Methane (CH <sub>4</sub> )	28
Nitrous oxide (N <sub>2</sub> O)	265
Hydrofluorocarbons (HFCs)	See IPCC AR5
Perfluorocarbons (PFCs)	See IPCC AR5
Refrigerants	See IPCC AR5

(Source: IPCC AR5, 2014)

## System Boundaries

### Organisational boundaries

Rew Wing Aviation GHG inventory follows the operational control approach, in accordance with the GHG Protocol. Under the operational control approach, a company accounts for 100% of emissions from operations over which it or one of its subsidiaries has operational control. The 2022 GHG accounting includes an office in Wisconsin, United States.

Table 5 shows the countries and offices that were included in the 2021 GHG inventory.

**Table 5: Key figures for office and region**

Country	Location	No. of facilities	Area (m <sup>2</sup> )	Headcount
United States	Wisconsin	1	642	75
Total			642	75

(Source: South Pole, based on RWA data, 2023)

### Operational boundaries

Under the 'GHG Protocol', emissions are divided into direct and indirect emissions. Direct emissions are those originating from sources owned or controlled by the reporting entity. Indirect emissions are generated as a result of the reporting entity's activities but occur at sources owned or controlled by another entity.

The direct and indirect emissions are divided into three scopes as found below.

## Scope 1

Scope 1 includes all carbon emissions that can be directly managed by the organisation (direct GHG emissions). This includes the emissions from the combustion of fossil fuels in mobile and stationary sources (e.g. fuels for mobile sources for passenger aircraft, power generators and vehicles) and carbon emissions generated by chemical and physical processes, as well as fugitive emissions from the use of cooling and air-conditioning (AC) equipment. Table 6 (below) gives an overview of the emission sources considered in scope 1, based on the information provided by RWA.

**Table 6: Overview of scope 1 emission sources for 2022**

Category	Emission sources	Boundary and justification for exclusion
Stationary combustion	Generation of heat	Included
Mobile combustion	Fuels for mobile sources for passenger aircraft	Included
Physical or chemical processing	Manufacture or processing of chemicals and materials	Not applicable
Fugitive emissions	Emissions from the use of cooling systems and AC equipment	Included

## Scope 2

Scope 2 includes indirect GHG emissions from the generation of purchased electricity, steam, heat or cooling purchased by the organisation from external energy providers. As required by the GHG Protocol, Scope 2 emissions are reported using both the location-based method and the market-based method<sup>2</sup>. This dual reporting allows corporates to compare their individual purchasing decisions to the overall GHG-intensity of the grids on which they operate.

The market-based method reflects emissions that result from electricity purchases that the company has purposefully chosen. When a contract is set up for the sale of electricity and the origin of energy generation can be guaranteed, then those specific and relevant emissions factors can be applied. The location-based method applies average emission factors that correspond to the grid where consumption occurs. The default method applied to RWA reporting is market-based; location-based results are shown for completeness and transparency.

Table 7 below gives an overview of the emission sources considered in scope 2.

<sup>2</sup> A location-based method reflects the average emissions intensity of grids on which energy consumption occurs (using mostly grid-average emission factor data). A market-based method reflects emissions from electricity that companies have purposefully chosen (or their lack of choice): it derives emission factors from contractual instruments, which include any type of contract between two parties for the sale and purchase of energy bundled with attributes about the energy generation or for unbundled attribute claims (e.g. RECs, GOs, etc.).

**Table 7: Overview of scope 2 emission sources for 2022**

Category	Emission sources	Boundary
Electricity	Purchased electricity	Included
Steam	Purchased steam	Not applicable
District heating	Purchased district heating	Not applicable
District cooling	Purchased district cooling	Not applicable

## Scope 3

Scope 3 includes other indirect emissions, such as emissions from the extraction and production of purchased materials and services, vehicles not owned or controlled by the reporting entity, outsourced activities, or waste disposal.

According to the 'GHG Protocol', companies shall separately account for and report on emissions from scope 1 and 2. Scope 3 is an optional reporting category according to the 'GHG Protocol', but as it is the most important scope for many organisations, companies are expected to assess at least the most relevant categories. In addition, it is best practice to include scope 3 emissions and it is a requirement for setting science-based targets (SBTs).

Table 8 presents an overview of the emission sources considered in scope 3.

**Table 8: Overview of scope 3 emission sources for 2022**

Category	Emission sources	Boundary
Purchased goods and services	Purchased goods (raw materials) and services	Included
Capital goods	Production of capital goods (information technology [IT] equipment, machinery, buildings etc.)	Included
Fuel- and energy-related activities	Emissions from fuel and electricity generation, including transmission and distribution (T&D) losses	Included
Upstream transportation and distribution	Transportation and distribution of goods and services purchased by the reporting company	Included
Waste generated in operations	Waste management of operational waste (landfilling, recycling, etc.)	Included
Business travel	Travel and accommodation of employees/contractors	Included

Category	Emission sources	Boundary
Employee commuting and teleworking	Employee travel between home and work and incremental emissions related to working from home	Included
Upstream leased assets	Operation of assets leased by the organisation (lessee) in the reporting year and not included in scope 1 or 2	Not material. Not included
Downstream transportation and distribution	Transportation and distribution of products not purchased by the reporting company	Not material. Not included
Processing of sold products	Processing of intermediate products sold by the organisation	Not material. Not included
Use of sold products	Emissions from the use of sold products (e.g. energy consumption during use)	Not material. Not included
End-of-life treatment of sold products	Waste disposal and treatment of sold products	Not material. Not included
Downstream leased assets	Operation of assets owned by the company (lessor) and leased to other entities, not included in scope 1 or 2	Not material. Not included
Franchises	Operation of franchises not included in scope 1 or 2	Not material. Not included
Investments	Operation of investments not included in scope 1 or 2	Not material. Not included

## Data inventory and assumptions

Overall, the data inventory, emission factors, and assumptions are based on the 'GHG Protocol'. The choice of assumptions and emission factors followed a conservative approach. Unless otherwise specified, all emission values in this report are given in metric tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e).

Where activity data of the inventory was lacking, extrapolations and estimations were made. The complete overview of activity data, extrapolations, and estimations is summarised in Annex II. While every effort has been made to calculate emissions as accurately as possible, GHG emissions calculations carry an inherent level of limitation and uncertainty. As standard practice and in line with the GHG protocol, the choice of assumptions and emission factors followed a conservative approach.

The quality of activity data provided for a GHG inventory has a significant impact on the reliability and accuracy of emissions calculations. Primary activity data, such as the kWh of electricity

purchased within a reporting year, yields that highest quality calculations. Spend based data, which relies on a far greater number of assumptions, results in the least accurate.

## Results

Based on the data provided by RWA and the assumptions made to fill the data gaps, the total GHG reported emissions for the year 2022 are estimated at **29,791.12 tCO<sub>2</sub>e**. Table 9 below illustrates the key figures in terms of GHG emissions (in tCO<sub>2</sub>e) and energy intensity (in gigajoules [GJ]) relevant to corporate sustainability reporting, in accordance with the GRI Standards. Please note that, due to rounding of numbers, the figures may not add up exactly to the total provided.

**Table 9: Key figures according to the Global Reporting Initiative (GRI)**

GRI Standard	Topic	Quantity	Unit
302-1	e	Energy consumption within the organisation	315,880.05 GJ
	a	Total fuel consumption from non-renewable sources	315,550.32 GJ
		Aviation fuel	314,331.60 GJ
		Natural gas	1,218.72 GJ
	b	Total fuel consumption from renewable sources	0.0 GJ
	c	Total electricity consumption	329.73 GJ
305-1	a	Direct GHG emissions (scope 1)	22,536.52 tCO <sub>2</sub> e
305-2	a	Location-based energy indirect GHG emissions (scope 2)	41.37 tCO <sub>2</sub> e
	b	Market-based energy indirect GHG emissions (scope 2)	41.37 tCO <sub>2</sub> e
305-3	a	Other indirect GHG emissions (scope 3)	7,213.23 tCO <sub>2</sub> e
302-4		GHG emissions intensity	397.21 tCO <sub>2</sub> e/ employee

(Source: South Pole, based on RWA data, 2023)

**Table 10: GHG emissions by scope and activity for 2022**

Activity	Consumption	Unit	Emissions (tCO <sub>2</sub> e)	Percentage of total (%)
Scope 1: direct GHG emissions			22,536.52	75.65%
Stationary combustion	10,813.70	m <sup>2</sup>	61.73	0.21%
Natural gas	10,813.70	m <sup>3</sup>	61.73	0.21%
Mobile combustion	9,274,629.97	litres	22,474.71	75.44%
Aviation fuel	9,274,629.97	litres	22,474.71	75.44%
Refrigerant leakage	642	m <sup>2</sup>	0.08	<0.01%
Scope 2: indirect GHG emissions from purchased electricity, heating and cooling (market-based)			41.37	0.14%
Electricity	91.59	MWh	41.37	0.14%
Grid	91.59	MWh	41.37	0.14%

## Red Wing Aviation - 2022 GHG Accounting Report

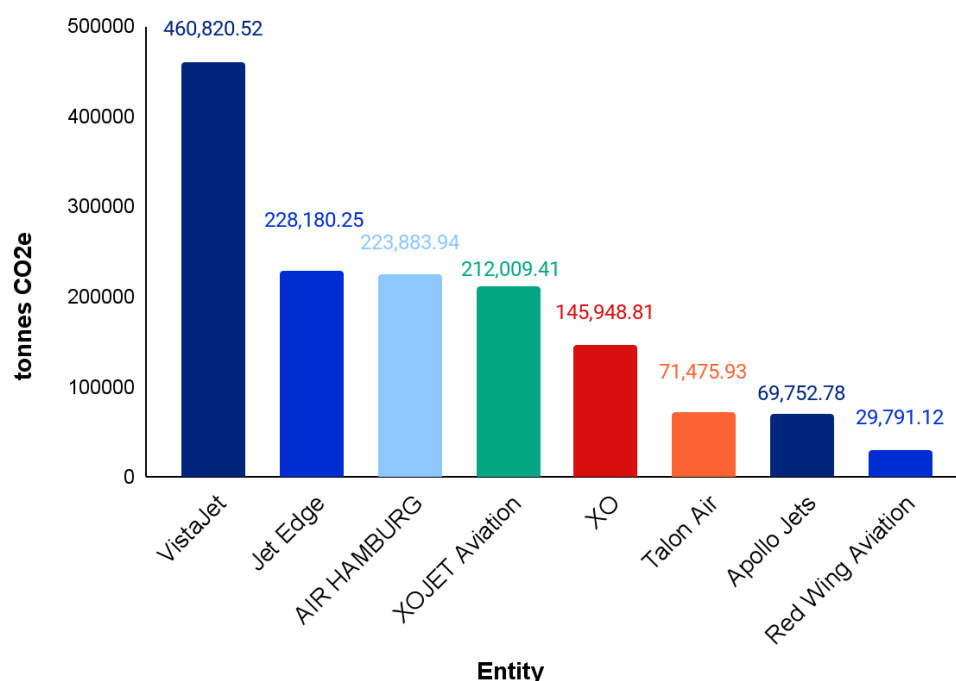
Activity	Consumption	Unit	Emissions (tCO <sub>2</sub> e)	Percentage of total (%)
Scope 3: other indirect GHG emissions			7,213.23	24.21%
Category 1: Purchased goods and services			25.52	0.09%
Water supply	750.00	m <sup>3</sup>	0.11	<0.01%
Consumables - flights	160,009.00	USD	25.36	0.09%
IT services	366	users	0.05	<0.01%
Category 2: Capital goods			0.27	<0.01%
IT equipment - Laptops	1	No. of devices	0.27	<0.01%
Category 3: Fuel- and energy-related activities			5,733.21	19.24%
Aviation fuel	9,274,629.97	litres	5,720.84	19.20%
Natural gas	10,813.70	m <sup>3</sup>	10.52	0.04%
Electricity	91.59	MWh	1.86	0.01%
Category 4: Upstream transportation and distribution			36.35	0.12%
Freight			36.35	0.12%
Air	15,917.65	tkm	34.94	0.12%
Road	6,647.05	tmi	1.41	<0.01%
Category 5: Waste generated in operations		m <sup>3</sup>	8.89	0.03%
Commercial and industrial waste	23.40	ton	8.89	0.03%
Category 6: Business travel			1,343.42	4.52%
Flights	3,646,176.55	pkm	627.22	2.11%
Short-haul < 463 km - economy	93,505.97	pkm	25.50	0.09%
Medium-haul 463 - 3,700 km - economy	3,432,601.85	pkm	574.89	1.93%
Medium-haul 463 - 3,700 km - business	30,415.28	pkm	7.64	0.03%
Long-haul > 3,700 km - economy	89,653.45	pkm	19.20	0.06%
Rental car	119,250.93	USD	17.52	0.06%
Taxi	239,910.11	USD	103.18	0.35%
Accommodation	2,111,988.52	USD	595.51	2.00%
Category 7: Employee commuting			65.57	0.22%
Car	239,021.59	km	52.42	0.18%
Other (taxi and motorbike)	48,025.61	km	9.70	0.03%

Activity	Consumption	Unit	Emissions (tCO <sub>2</sub> e)	Percentage of total (%)
Public transport (bus and train)	2,571.73	pkm	0.21	<0.01%
Teleworking	2,405	person-days	3.23	0.01%
Walk	9,419.72	pkm	0.00	0.00%
Total GHG emissions (location-based)			29,791.12	-
Total GHG emissions (market-based)			29,791.12	100%

(Source: South Pole, based on RWA data, 2023)

## Overall results - Vista

Figure 3 presents a breakdown of Vista's GHG emissions for each of its eight business units. In 2022 RWA had the lowest GHG footprint of all eight global entities, at 29,791.12, tCO<sub>2</sub>e, accounting for 2.07% of the overall global footprint.



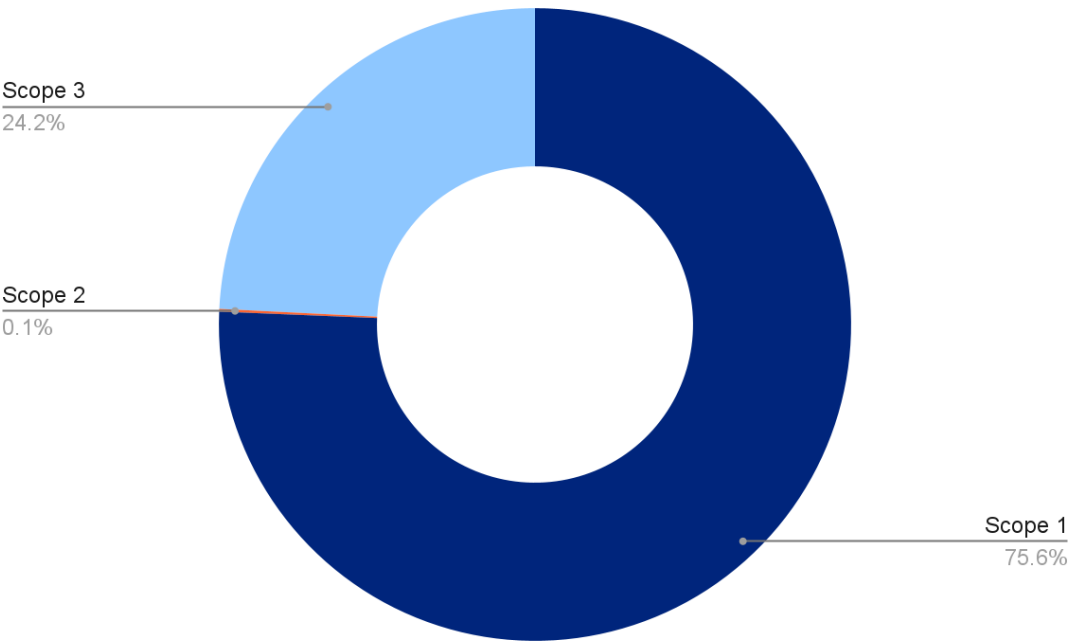
**Figure 3: Vista overall 2022 GHG emissions by business entity**

(Source: South Pole, based on Vista 2023)

## Category-level results

Figure 4 presents a breakdown of RWA's overall 2022 emissions by scope. The vast majority of emissions - 75.6% - fall under Scope 1. This is largely driven by emissions associated with the burning of aviation fuel, which accounts for over 99.73% of the Scope 1 footprint.





**Figure 4: GHG emissions in 2022 by scope**

(Source: South Pole, based on RWA data, 2023)

Figure 5 further provides a breakdown of emissions by GHG Protocol category. Mobile combustion is the largest source of emissions, accounting for 75.44% of the overall footprint.

The upstream scope 3 emissions associated with burning aviation fuel - which- which are accounted for under *Category 3 - Fuel and energy related activities* is the second largest source of emissions, and specifically accounts for 19.2% of the 2022 footprint. Overall, aviation fuel is therefore responsible for 94.64% of the total emissions for 2022.

Business travel and employee commuting are the third and fourth highest sources of emissions, accounting for 4.51% (1,343.42 tCO<sub>2</sub>e) and 0.2% (65.57 tCO<sub>2</sub>e) as presented in Figure 5, mainly driven by aviation fuel consumption due to private flights services, staff air travel and accommodation.

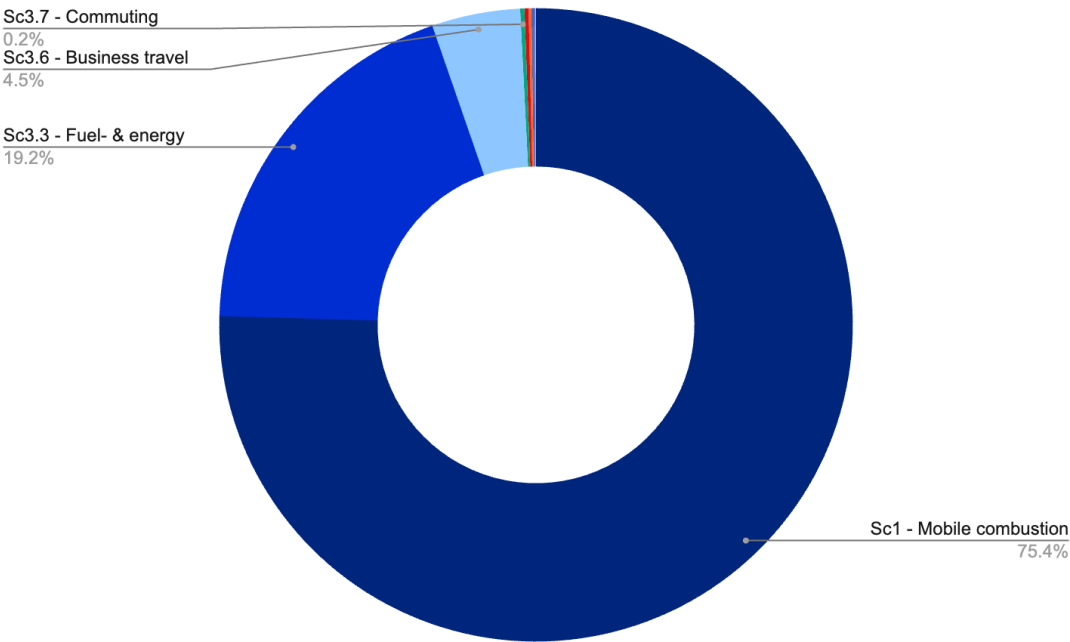


Figure 5: GHG emissions in 2022 by GHG Protocol category

(Source: South Pole, based on RWA data, 2023)

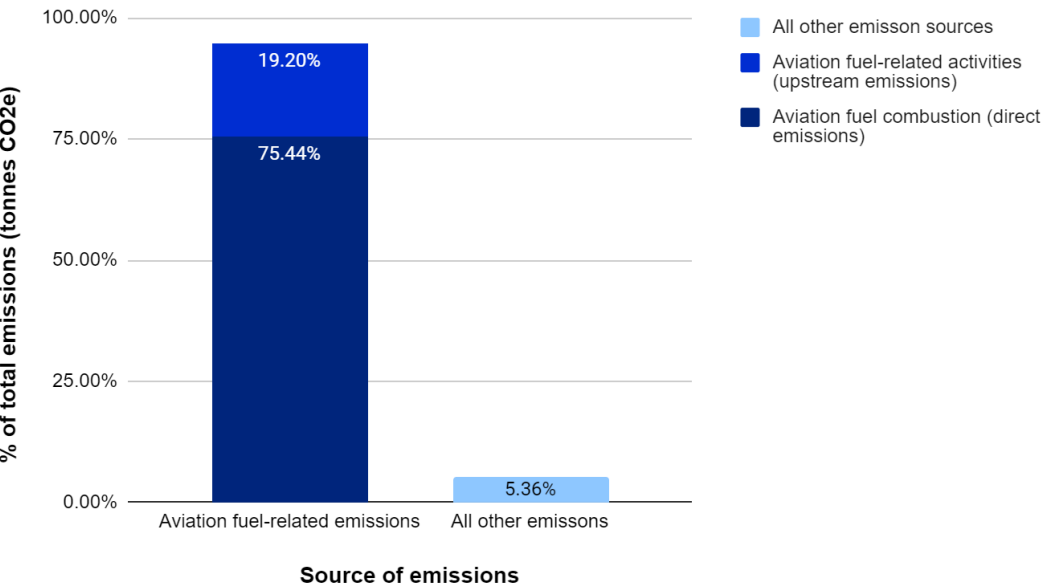


Figure 6: Comparison of RWA's aviation fuel emissions and all other emissions

(Source: South Pole, based on RWA data, 2023)

Figure 7 presents a comparison of RWA's GHG inventories from 2021-2022. From 2021 to 2022 emissions have increase by 20,209.92 tCO<sub>2</sub>e, or 210.93%. This was predominantly driven by a 20,202.75 tCO<sub>2</sub>e rise in scope 1 and scope 3 emissions from the combustion of aviation fuel.

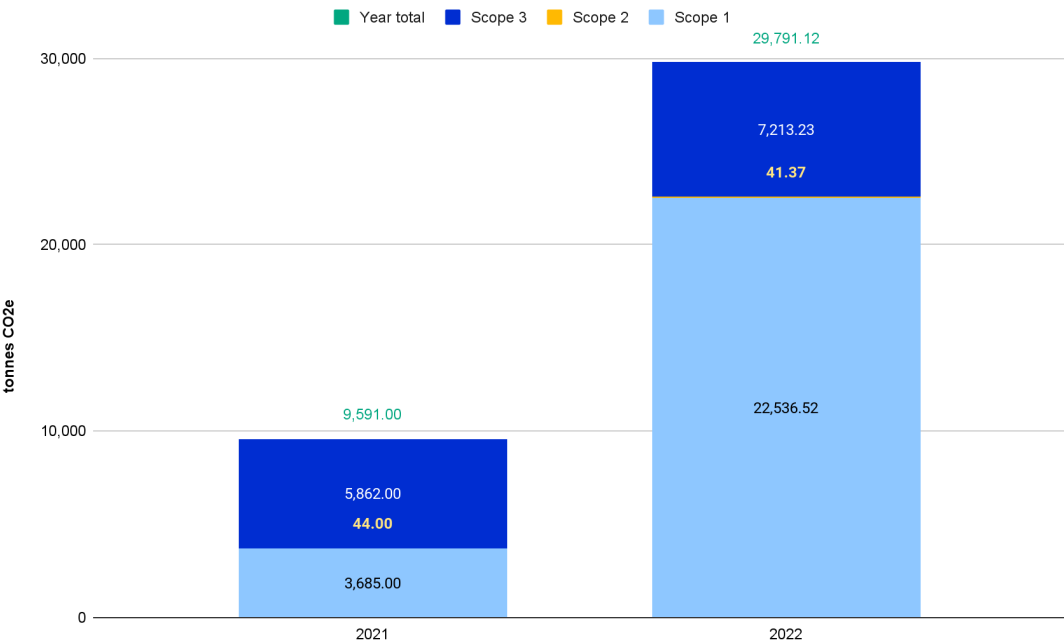


Figure 7: RWA's GHG emissions from 2021-2022 by scope

(Source: South Pole, based on RWA data, 2023)

In 2022 aviation fuel emissions accounted for 94.64% (28,195.54 tCO<sub>2</sub>e) of all emissions corresponding to mobile combustion in Scope 1 and fuel and energy-related activities category 3 Scope 3, while in 2021 were responsible for only 44.89% (4,301.37 tCO<sub>2</sub>e) of the total footprint (Figure 8). This can be attributed to an increase in aviation fuel consumption reported from 1,400,184.48 litres in 2021 to 9,274,606.23 litres in 2022.

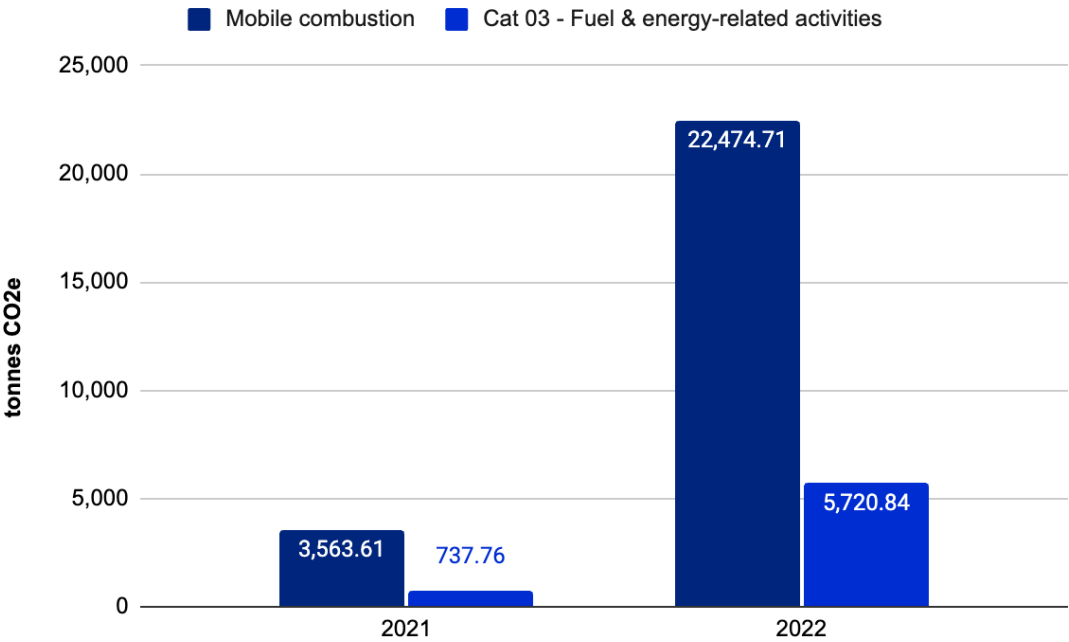


Figure 8: Aviation fuel emissions comparative 2021 vs 2022

(Source: South Pole, based on RWA data, 2023)

## Conclusions

The annual measurement of GHG emissions is an essential first step that organisations must take on their journey to mitigating climate impact.

This report has presented a summary of RWA's 2022 GHG footprint. As with previous years, the mobile combustion of aviation fuel is the primary driver of emissions. In 2022, emissions were higher than in 2021, reflecting an increased use of aviation fuel that stems from general year-on-year growth of business operations.

It is important that RWA takes steps to continue improving the quality and accuracy of its GHG footprint, and implements measures to decarbonise its operations. Glasgow's COP26 and the 2021 IPCC report shone a spotlight on the critical need to achieve Net Zero emissions to keep global warming within the 1.5 degree limit. Private aviation is a highly emissions intensive industry, and RWA has an important role to play in this transition.

In order to improve the quality of the GHG footprint, the following courses of action are recommended:

- **Collect primary activity data:** RWA can improve data quality by collecting primary consumption data as activity volumes for all sources of emissions. This allows for far more accurate and reliable GHG calculations than spend-based data.
- **Continue establishing formalised data collection procedures:** Formalised data collection procedures, with internal quality controls, supplier communication, assigned roles, and clear frameworks allow for a more streamlined data collection processes and limits the risk of missed data.
- **Review data assumptions in Annex 2:** Annex 2 in this document provides more granular breakdown of key data assumptions. Treat these as priority emission sources to act on and improve data collection procedures for.

The following next steps are recommended for RWA to continue on its decarbonisation journey.

- **Prioritise investment in and uptake of Sustainable Aviation Fuel (SAF):** The 2022 GHG footprint re-emphasised the centrality of aviation fuel as a driver of RWA's emissions. Decarbonising fuel, for instance by switching to SAF, should be an absolute priority for RWA if it wishes to act on its climate ambitions.
- **Set science based targets with SBTi:** – The Science Based Targets initiative drives ambitious climate action in the private sector by enabling companies to set science-based emissions targets. RWA should demonstrate its commitment to sustainability in the aviation sector, and cement its position as a sector leader, by setting targets with SBTi.

## Annex I

### Emission factors sources

Table 11: Emission factors sources

Activity	Emission factor reference <sup>3</sup>
Fuel	BEIS 2022, SBTi Aviation Tool 2.0
Refrigerants	ADEME 2022; BC V8.8
Electricity (market-based)	eGrid 2021
Electricity (location-based)	eGrid 2021
Purchased goods and services	BEIS 2022, CEDA Global 6, 2022
Capital goods	Dell 2021
Freight	US EPA 2022, BEIS 2022
Waste	BEIS 2022
Business travel	BEIS 2022, CEDA Global 6, 2022
Commuter travel	BEIS 2022
Teleworking	IEA energy indicators 2022; Anthesis, 2020; BEIS 2022; eGRID, 2021; SP custom EF's
Accommodation	CEDA Global 6

<sup>3</sup> South Pole derives its emission factors from reliable and credible sources. South Pole is not responsible for inaccuracies in emission factors provided by third parties.

## Annex II

### Data assumptions and extrapolations

Table 12: Data assumptions and extrapolations

Category	Sub-Category	Assumption
Fugitive emissions	Refrigerants	Emissions from refrigerant leakage were estimated based on average sectoral consumption values and applied to RWA sites based on total site area.
Purchased goods and services	Water supply	Emissions from water supply were estimated based on figures for country/regional level water consumption and extrapolated based on site headcount.
Business travel	All	When applicable, Scope 3 emissions include Well-to-tank (WTT) emissions, which are those associated with the upstream production and distribution of the fuel and energy.
Business travel	Flights	Flight emissions include a radiative forcing index (RFI) multiplier of 1.9, which accounts for the effects of non-CO2 emissions (e.g. contrails, water vapour, nitrogen oxides and soot). This is in line with BEIS recommendations, which are informed by wider industry research.
Employee commuting	Teleworking	Teleworking emissions were estimated based on country and regional electricity and heating consumption for employees working from home, and applied to sites based on headcount.
Employee commuting	Travel	Employee travel emissions were estimated based on country and regional travel data for modes of commuter transport and applied to sites based on headcount.

