



Public Impact Statement 2022

ITPS Canada

*Committed to
responsible aviation.*



ITPS
CANADA 

ITPS Canada's GHG report has been produced by LivClean
Prepared May 2023



CARBON OFFSET SOLUTIONS

ITPS Canada Impact Statement for 2022.

In 2022, ITPS's
carbon footprint
from flying was:

1,933 tCO₂-e

% of Footprint
offset

100% = 1,933 t Carbon Offsets
Purchased

ITPS Offsetting is equivalent to:

Taking **141,109** cars
off the road for a day.



Planting
19,330
trees and protecting
them for 100 years.



Recycling
2,510,390
Kg of waste instead of
dumping it in landfill



Taking
230
passenger flights
around the
world.

Overview

This is a report stating the direct carbon emissions associated with aviation fuel consumption by ITPS Canada in 2022, as assessed by LivClean Corp, using emission factors provided by Verifava.com and calculation methodology outlined below. This report and the data provided by ITPS are for estimation purposes only and are not independently verified. ITPS will use the results of assessment for the purpose of purchasing carbon offsets, as well as setting a baseline for future year assessments.

To mitigate the carbon impact from aviation fuel consumption, ITPS Canada has purchased offsets from LivClean Canada, equal to 100% of their 2022 assessed emissions.

By supporting the Great Bear Forest Carbon Project, ITPS is offsetting 1,933 tonnes about the equivalent of planting and protecting 19,330 trees. This effort balances 100% of the greenhouse gas emissions from the organization's fleet of 26 modern and vintage aircraft flown during test-pilot training, out of London's International Airport (CYXU).

Calculation Methodology

The methodology for calculating the emissions is presented below.

GHG emissions from aviation fuel

$$\text{TOTALFleet}_{\text{Emissions}} = \sum_{\text{allfueltypes}} \{ \text{FuelConsumption}_{\text{fueltype}} * \text{EmInt}_{\text{FuelType}} \}$$

Where

Fleet_{Emissions} = Total GHG emission from aviation fleet per year

FuelConsumption_{fueltype} = Fuel used in a year, by type of fuel in litres

EmInt_{FuelType} = GHG emission intensity by fuel type (Emission factor)

This calculation is repeated for each aircraft used in the fleet using the GHG emission factors for various fuel types which might be used by the aircraft, as specified below.

Primary Fuel Type	Emission Intensity
	CO ₂ e (kg/litre)
Aviation Jet A or A1	3.15
AvGas 100L	3.10

Source: Verifavia.com

Data

GHG emissions from aviation fuel consumption were quantified according to information provided by ITPS on fuel purchases in 2022 as follows:

Aircraft	2022 Fuel Consumption (Litres)	Fuel Type	Emission Intensity kg CO2e/ltr	Total Emissions t CO2e
Aircraft 1	199	Jet A or A1	3.15	0.63
Aircraft 2	39,675	Jet A or A1	3.15	124.98
Aircraft 3	1,985	Jet A or A1	3.15	6.25
Aircraft 4	113,428	Jet A or A1	3.15	357.30
Aircraft 5	476	Jet A or A1	3.15	1.50
Aircraft 6	4,912	Jet A or A1	3.15	15.47
Aircraft 7	2,689	Jet A or A1	3.15	8.47
Aircraft 8	303	Jet A or A1	3.15	0.95
Aircraft 9	20,951	Jet A or A1	3.15	66.00
Aircraft 10	8,628	Jet A or A1	3.15	27.18
Aircraft 11	16,269	Jet A or A1	3.15	51.25
Aircraft 12	78,371	Jet A or A1	3.15	246.87
Aircraft 13	13,281	Jet A or A1	3.15	41.84
Aircraft 14	36,743	Jet A or A1	3.15	115.74
Aircraft 15	67,252	Jet A or A1	3.15	211.84
Aircraft 16	64,823	Jet A or A1	3.15	204.19
Aircraft 17	92,058	Jet A or A1	3.15	289.98
Aircraft 18	20,036	Jet A or A1	3.15	63.11
Aircraft 19	9,144	Jet A or A1	3.15	28.80
Aircraft 20	5,984	Jet A or A1	3.15	18.85
Aircraft 21	542	Jet A or A1	3.15	1.71
Aircraft 22	477	Jet A or A1	3.15	1.50
Aircraft 23	796	Jet A or A1	3.15	2.51
Aircraft 24	1,910	Jet A or A1	3.15	6.02
Aircraft 25	271	Jet A or A1	3.15	0.85
Aircraft 26	12,390	AvGas	3.10	38.41
Grand Total	613,593			1,932.20

Results

Using the calculation methodology and the *emission factors*, the resulting carbon associated with aviation fuel consumption were:

Aviation Fuel related emissions 2022

Fuel Type	Fuel Consumption (L)	Total Emissions (t CO2e)
Aviation Jet A or A1	601,203	1,893.79
AvGas 100L	12,390	38.41
TOTAL		1,932.20

Previous Year Comparison: 2022 emissions have seen an overall increase of 6.8% (122.67 t CO2e) versus 2021 due to increased fuel consumption.

2021 Results:

Fuel Type	Fuel Consumption (L)	Total Emissions (t CO2e)
Aviation Jet A or A1	566,275	1,783.77
AvGas 100L	8,310	25.76
TOTAL		1,809.53

Offsetting

To mitigate the carbon impact from aviation fuel consumption, ITPS Canada has purchased 1,933 tonnes of carbon offsets from LivClean Canada, equal to 100% of their 2022 assessed emissions.

About the Project: Great Bear Forest Carbon Project - B.C. Canada

The Great Bear Forest Carbon Project covers more than 14 million acres in British Columbia and is home to the largest remaining intact coastal temperate rainforest in the world.

The project aims to increase carbon capture and storage through improved forest management practices that balance timber harvesting with the overall health of the forest in an ecosystem based management regime. Forests that were previously available for logging are now protected cultural heritage sites, thereby preserving existing carbon stocks, reducing emissions caused by harvesting, road building and other forestry operations, and increasing the carbon stocks as the forest continues to grow.

In addition to sequestering carbon, this unique landscape protects the habitats of many species that cannot be found anywhere else on the planet, such as the Kermode bear—fully white black bears that hold a prominent place in the oral histories of the indigenous peoples who live in the project area. The project also protects the Western Red Cedar, which is known as the “Tree of Life” and preserves important coastal and freshwater habitats for marine life.

The Great Bear Rainforest project is a landmark project in Canada and represents the first project in North America on First Nation territory with unextinguished land rights and title. Great Bear balances human wellbeing with the improved management of the land, distributing carbon credit revenue among the Coastal First Nations group, a ground breaking organization that brings together the 9 First Nation communities who inhabit the area.

Tracking

The Great Bear Forest Carbon Project and the ITPS offset purchase are tracked on the BC Forest Carbon Offset third-party public carbon-reduction registry:

https://carbonregistry.gov.bc.ca/br-reg/public/bc/index.jsp?entity=retirement&sort=account_name&dir=ASC&start=0&acronym=&limit=15&name=livclean&standardId=&unitClass=

ITPS carbon offset purchases are tracked by LivClean Canada. See public dashboard: https://ecostayforest.ca/partner_impacts/0182

ICAO CORSIA ALIGNMENT

The Great Bear Project has been validated to meet the requirements of the ISO 14064-2 (the International Organization for Standards Guidelines for Greenhouse gas reduction projects) and is thus eligible under the ICAO CORSIA scheme. In addition, the project also meets the requirements of the BC Emissions offsets regulations, which are also aligned with the ISO and CORSIA requirements.

