



Public Impact Statement 2021

ITPS Canada

*Committed to
responsible aviation.*



ITPS Canada's GHG report has been produced by LivClean
May 2022



ITPS Canada Impact Statement for 2021.

In 2021, ITPS's
carbon footprint
from flying was:

1,810 tCO₂-e

% of Footprint
offset

25% = 453 t

Carbon Offsets
Purchased

ITPS Offsetting is equivalent to:

Taking **33,069** cars off
the road for a day.



Planting
4,530
trees and protecting
them for 100 years.



Recycling
X
Kg of waste instead
of dumping it in
landfill



Taking **54**
passenger flights
around the
world.

Overview

This is a report stating the direct carbon emissions associated with aviation fuel consumption by ITPS Canada in 2021, as assessed by LivClean Corp, using emission factors provided by The Sherpa Report 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 25% of their 2021 assessed emissions.

By supporting the Great Bear Forest Carbon Project, ITPS is offsetting about the equivalent of planting and protecting 4,530 trees. This effort balances 25% of the greenhouse gas emissions from the organization's fleet of 29 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 (tonnes/litre)
Aviation Jet A or A1	3.15

Source: *The Sherpa Report*

<https://www.sherpareport.com/aircraft/fuel-burn-private-aircraft.html>

Data

GHG emissions from aviation fuel consumption were quantified according to information provided by ITPS on fuel purchases in 2021 as follows:

Aircraft	Litres (2021)	Type	Emission Factor kg CO ₂ e/ltr*	GHG Emissions t CO ₂
CFBDK	1,489	Jet A or A1	3.15	5
CFEFY	642	Jet A or A1	3.15	2
CFETU	30,707	Jet A or A1	3.15	97
CFFBD	2,092	Jet A or A1	3.15	7
CFLBT	210	Jet A or A1	3.15	1
CFLOX	1,296	Jet A or A1	3.15	4
CFLVB	77,621	Jet A or A1	3.15	245
CFNGE	500	Jet A or A1	3.15	2
CFPIU	3,161	Jet A or A1	3.15	10
CFPQA	18,190	Jet A or A1	3.15	57
CFTSV	4,567	Jet A or A1	3.15	14
CFUPP	18,247	Jet A or A1	3.15	57
CFXZI	67,727	Jet A or A1	3.15	213
CFYWI	5,049	Jet A or A1	3.15	16
CFYWQ	15,621	Jet A or A1	3.15	49
CGAPD	984	Jet A or A1	3.15	3
CGFNJ	137,391	Jet A or A1	3.15	433
CGFNO	128,372	Jet A or A1	3.15	404
CGFVG	597	Jet A or A1	3.15	2
CGHHR	403	Jet A or A1	3.15	1
CGLAU	3,196	Jet A or A1	3.15	10
CGMJH	311	Jet A or A1	3.15	1
CGRST	5,261	Jet A or A1	3.15	17
CGTOZ	739	Jet A or A1	3.15	2
CGZEF	693	Jet A or A1	3.15	2
CGZPG	521	Jet A or A1	3.15	2
CGZQT	883	Jet A or A1	3.15	3
N7025J	8,310	Jet A or A1	3.15	26
N88EA	39,805	Jet A or A1	3.15	125
Grand Total	574,585	Jet A or A1	3.15	1,810

Results

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

Aviation Fuel related emissions 2021

Fuel Type	Consumption	Direct emissions (tonnes CO ₂ e)
Aviation Jet A or A1	574,585 L	1,810

Offsetting

To mitigate the carbon impact from aviation fuel consumption, ITPS Canada has purchased 453 tonnes of carbon offsets from LivClean Canada, equal to 25% of their 2021 assessed emissions.

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

ITPS Canada's carbon offset purchase supports the Great Bear Forest Carbon Project which is located inside the traditional territories of the Haida Nation, British Columbia. The Great Bear project area covers more than 14 million acres and is within the Queen Charlotte/Haida Gwaii archipelago which is home to the largest remaining intact coastal temperate rainforest in the world, and rich with old growth forests.

The project aims to increase carbon capture and storage by converting forests that were previously available for logging to protected forests, 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 the carbon sequestration benefits, the project protects the western red cedar, which is known as the "Tree of Life" and many important habitats for organisms such as the Kermode bear, black and grizzly bears, and seacoast wolves. The project also preserves important coastal and freshwater habitats for marine life.

The British Columbia Great Bear Forest Carbon Project's impact is measured in ex-post carbon credits with 100-year permanence protection backstopped by the Forest Carbon Asset Management System buffer pool. The project follows the British Columbia (BC) Forest Carbon Offset Protocol for Improved Forest Management and is tracked on the BC Forest Carbon Offset third-party public carbon-reduction registry.

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&standardId=&unitClass=&sort=retirement_date&dir=DESC&name=haida

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