

Carbon Footprint

Santa Cruz Paddlefest 2019



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1. Executive Summary

The Santa Cruz Paddlefest attracts paddle surfers globally and hosts an elite competition of Surf Kayaks, Stand Up Paddle Boards, and Waveskis. The event was held from March 22 – 25, 2018. For this year we have made the event **carbon neutral**.

Due to a lack of data, Starboard’s report merely focuses on the amount of carbon dioxide produced during the transportation of the competitors to Santa Cruz and back.



In order to do so, Starboard assumed that every competitors returns to the place of origin.

With the resulting total amount of 46,838 kg of CO₂ from 156 competitors, Starboard was able to determine the amount of mangrove trees needed, in order to meet the carbon neutral goal for this year event, to be 47.

2. Introduction

Carbon footprint is the amount of carbon dioxide gas released into the atmosphere as a result of an individual or organization and their actions.

Carbon sequestration is the process by which carbon dioxide is captured from the atmosphere and stored long-term to mitigate the impact on the planet. mangrove trees in the Thor Heyerdahl climate park in Myanmar. Mangrove trees not only sequester about 1 tonne of carbon dioxide from the atmosphere over a 20- year lifespan, but also create a healthy ocean habitat for several species, and an amazing ecosystem that acts as a nursery for plants and animals. Because of its amazing root system, mangrove trees protect the shoreline from big waves and heavy storms.

Since 1994 Starboard has been an industry leader in innovation and quality, always striving to be the best in the world Now the vision has expanded to become the best **for** the world.

Starboard has pledged to be an advocate for the planet and to use the brand to encourage all stakeholders to practice an environmentally friendly attitude. The idea is to inspire others through projects that protect the big blue playground for future generations to come.

3. Carbon footprint calculations

3.1 Air transport

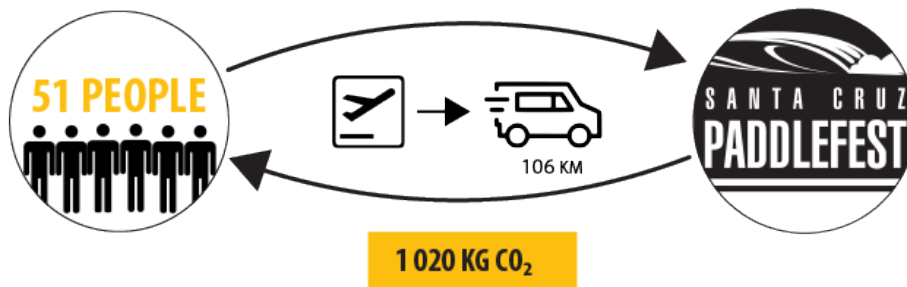


Flying from	Number of people	kg CO ₂ emission
Torfino, Canada	3	600
Cochrane Alberta	3	750
Valdivia, Chile	1	1570
Santa Cruz, Costa Rica	1	700
Hampshire, Great Britain	3	4440
Lima, Peru	2	2140
Delware, USA	1	600
Florida, USA	3	1740
Hawaii, USA	10	5700
Idaho, USA	3	390
North Carolina, USA	2	1140
New Jersey, USA	1	610
New York, USA	3	1830
Puerto Rico, USA	1	610
South Carolina, USA	1	550
Virginia, USA	2	1160
Washington, USA	5	1700
Oregon, USA	6	1680
Total	51	27 910 KG CO₂

The total CO₂ emission accounts for 51 people flying to Santa Cruz and back.

Roundtrips to Santa Cruz represent almost two thirds of the total CO₂ emission (27 910 kg CO₂). There are 13 international and 38 US-American competitors attending the event that require flights.

3.2 Airport transportation

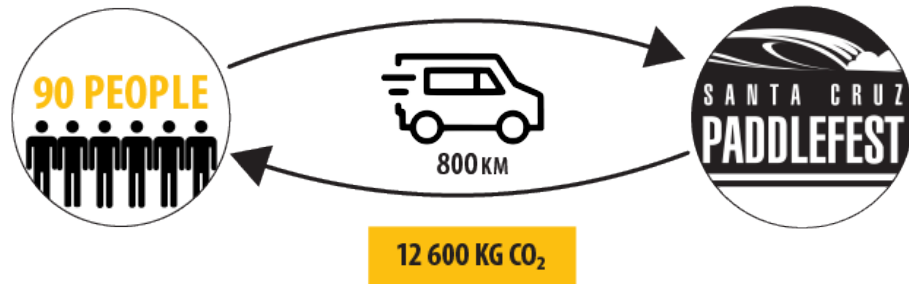


There is a 53 km drive from San Jose International Airport to Santa Cruz, adding up to a roundtrip of 106km. Assuming the use of an: average US car, which produces around 20 kg of CO₂ over 106 km and one passenger per trip, the total emission adds up to 1020 kg CO₂.

3.3 Transportation of the other 105 competitors



According to the provided data, 15 competitors only have to drive 200 km. This 400 km roundtrip, using the same car assumptions emits around 70 kg CO₂, amounting a total of 1050 kg CO₂.



The remaining 90 people have, on average; a 400 km drive to get to the Paddlefest. Each 800 km roundtrip produces around 140 kg of CO₂ totalling 12,600 kg of CO₂.

3.4 Total amount



Adding up the amounts from sections 3.1, 3.2, and 3.3 results in 42,580 kg of CO₂ produced by transportation logistics for the Santa Cruz Paddlefest. Note this is an averaged value calculated under the above mentioned assumptions. To compensate for uncertainties, the total amount will be increased by 10% (4,258 kg CO₂)

Therefore, to sequester 46,838 kg of CO₂, emitted by the Santa Cruz Paddlefest, 47 mangrove trees will be planted.



4. Sources:

- All calculation with kg co2 is done with;
<https://calculator.carbonfootprint.com/calculator.aspx?tab=3>
- <https://www.google.com/maps> to find distains from A to B, and find airport in different locations.
- <https://star-board.blue>
- <http://www.wif.care/heyerdahl-climate-parks/>