SHAPING A SUSTAINABLE FUTURE FOR AEROSPACE:
THE PATH TO ELECTRIFICATION

REVOLUTIONARY AIRCRAFT
PRACTICAL. COMPELLING. ELECTRIC.

Aviation Noise & Emissions Symposium 2020
March 1-3, 2020

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Dahlia Pham

• Associate Aerospace Engineer @ Ampaire
  • Vehicle Engineering Team

• UC Davis Class of ‘19
  • Mechanical Engineering (B.S.) and Aerospace Engineering (B.S)

• Mechanical Design Eng. Intern @ Tesla
  • Autopilot & Electronics Product Design Team

• NASA Aeronautics University Design Challenge 2018-2019
  • First Place Winner/Team Captain/Aerodynamics, Concept Evolution & Performance
We Live In A Connected World

Aviation Per Year

4.1 Billion Passengers

$6.4 Trillion Of Goods
Today's Connectivity Comes At A Significant Cost

900M Tons CO$_2$
Noisy Flights

2.5% of global CO$_2$ emissions
On track to increase to 20% of global emissions by 2050
Airlines Struggle To Be Profitable

- **Significant operating costs**
  - Fuel is 40% of OpEx
  - Maintenance is 15% of OpEx

- **Survival through subsidies**
  - Government subsidies have increased by more than 500% since 1997, not accounting for inflation

- **Decreased service offerings**
The same factors that make electric cars inevitable also apply to aviation.
The Third Revolution
In Aviation Has Begun
We Are Unleashing A New Mobility Market

10x Destinations

Increased Accessibility

$178 Billion

UBS
70% - 90% fuel cost savings

25% - 50% maintenance cost savings
Low Emissions

Ultra quiet takeoff and landing
Our Mission

Trusted
Practical
Compelling
Electric Aircraft
Founded 2016

- Identified key value propositions for electric aviation.
- Developed and built systems to meet customer needs.
- Built and flew the world's largest hybrid electric plane.
- Soon to launch world's first e-aircraft demonstration on commercial routes.
- Working closely with regulators and customers for market entry.

Ground Test
DONE. 2019

Takeoff
DONE. 2018

In Customer Hands
Coming Soon. 2020

In Market
Coming Soon. 2021
• Scalable to larger planes.

• Resilient to technology changes.

• Operating within existing infrastructure
We’ve Built The Right Team
We’re Getting Support and Recognition

Aerospace Partners

NASA
U.S. Air Force
Continental Aerospace Technologies

Startup Ecosystems

Techstars
Elemental Excelerator
Starburst
LACI

Media Recognition

The Wall Street Journal
CNN
Fast Company
Aviation Week Network

International Awards

IEEE N3XT Stars
hello tomorrow
Global Cleantech 100
LACoMotion
Focusing On Customers

$70M Backlog
Our First Delivery: Hawaii

Worlds-first demonstration of daily operations. Partnered with Hawaii’s #1 Island Hopper airline.

We’ll demonstrate game-changing benefits:

- **88% time reduction** compared to driving
- **40% cost reduction** compared to flying fueled

**FLIGHT COST**
- Traditional Fuel: $150
- Near-Term Hybrid: $90
- Long-Term Electric: $30

**TRIP DETAIL**
- Kahului: Central Maui
- Hana: Destination

**FLY**
- TIME: 15 min
- DIST: 28.0

**DRIVE**
- TIME: 2hr 4 min
- DIST: 50.2 mi
The Bottom Line: