

The Future of Coastal Transportation

At Tidal, we design and build aircraft to make air travel sustainable and affordable. We are starting our journey with a hybrid-electric amphibious seaplane.



Tidal's 1/6 Scale Flying Demonstrator



# Airlines struggle to capture the 13B passengers annually that travel between 100-500 miles

Only 8% travel by air

- Long transits to and queues at airports decrease willingness to pay
- High opex for the small aircraft that are best suited for these routes results in high ticket prices



## Seaplanes offer the *fastest transportation* for the 40% of people that live in coastal areas



Traditional Air

3H 40M

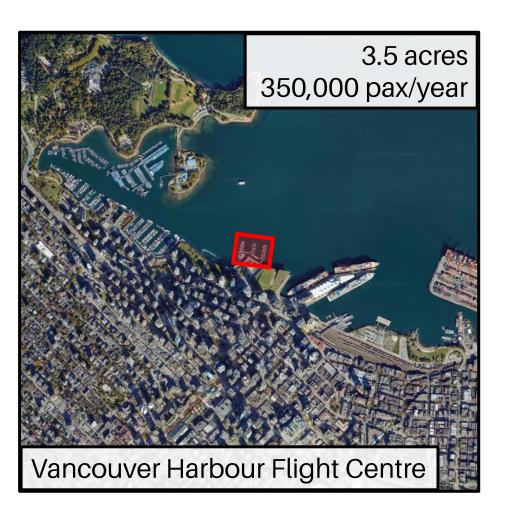
Car **4H 0M** 



### Seaplanes make efficient use of space and infrastructure



Regional Airport Footprint



Seaplane Base Footprint



### However, seaplanes today are aging and inefficient



1. High fuel burn and slow cruise speeds

2. Corrosion prone aluminum airframes

3. High emissions and noisy powertrains



## POLARIS



9-12 Passengers 1190 MI Range ↓85% Fuel Burn 180 KTAS Max Cruise Speed

# Reduced Operating Costs Trigger Replacement of Existing Seaplanes

**+43%** 

**Per-Seat-Mile Costs** 

Achieves operating cost decrease required to **grow regional air mobility** 

**↓85%**Fuel Costs

where powertrain drastical

Hybrid powertrain drastically reduces fuel costs

**↓50%**Maintenance Costs

<u>Composite construction</u> nearly eliminates corrosion-related maintenance

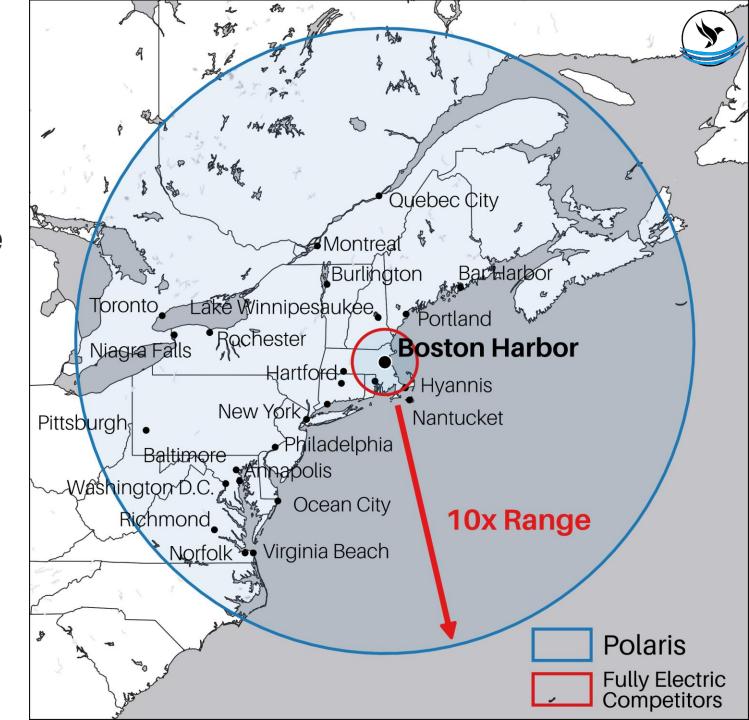
+25 KTAS
Max Cruise Speed
Low-drag monohull design
increases cruise speeds

## Why Hybrid?

1. Improved Payload-Range

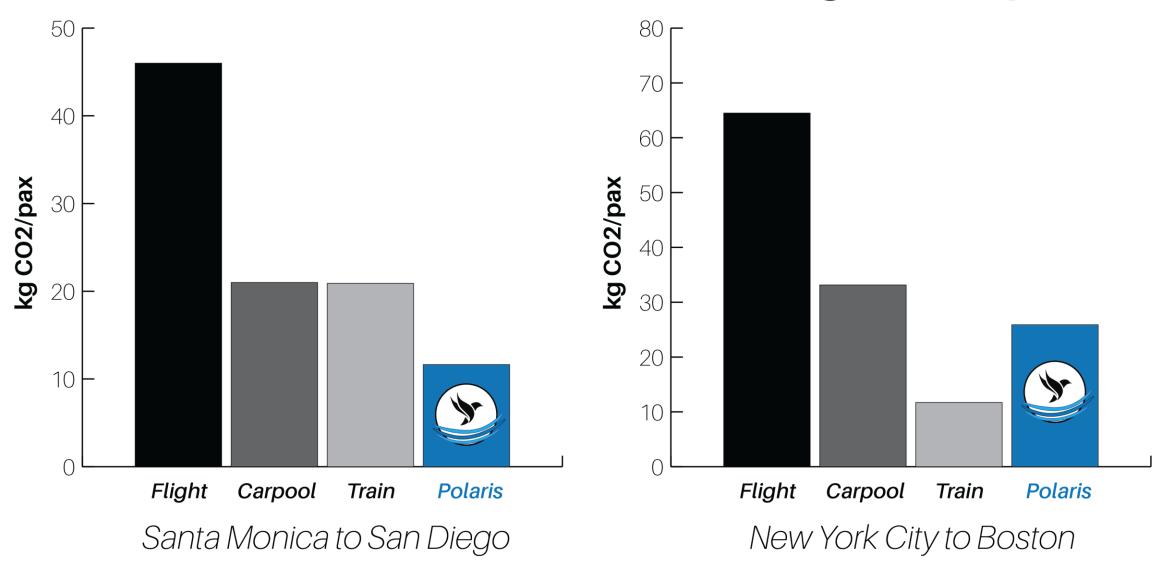
2. Reduced Reliance on Charge Infrastructure

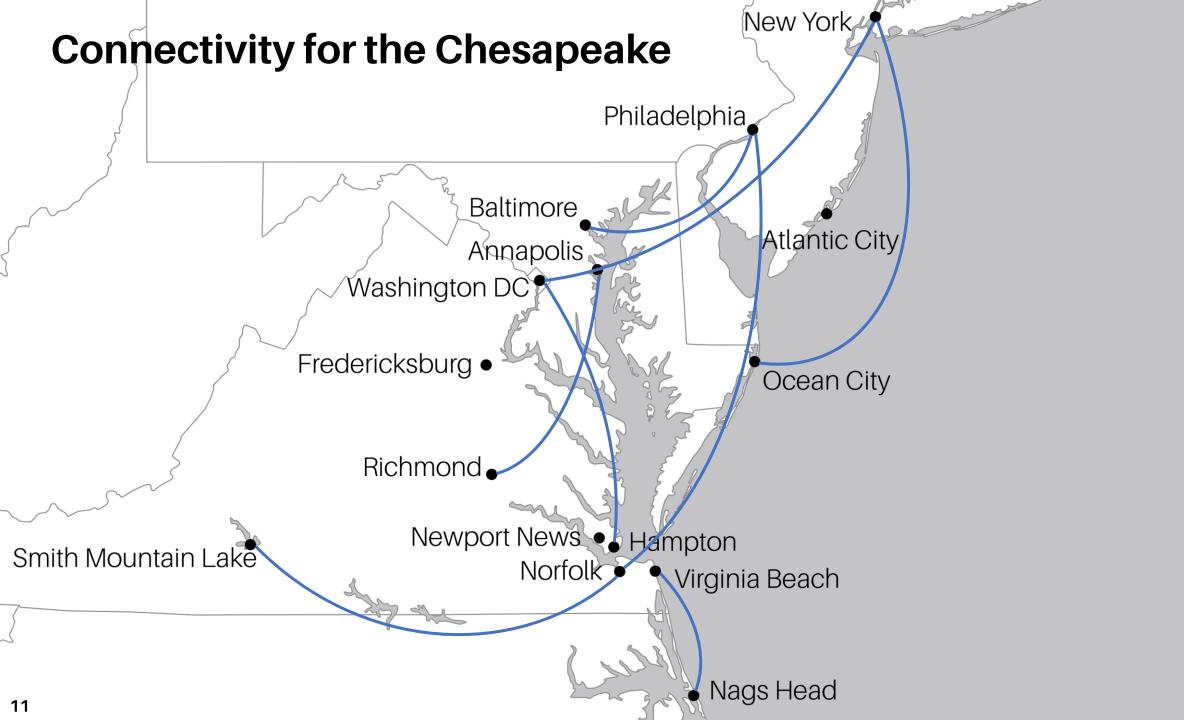
3. Poor Weather Operations





## Polaris reduces emissions for regional trips







# Early market validation with commuter and seaplane airlines

\$650M+
In LOIs

100+ Aircraft

6 Countries

#### **Secured 8 LOIs for Purchase of Aircraft**

LOIs from seaplane airlines and from commuter airlines who have not operated seaplanes before

#### Polaris has a Worldwide Reach

Orders from North America, Southeast Asia, and Australia demonstrate global demand.



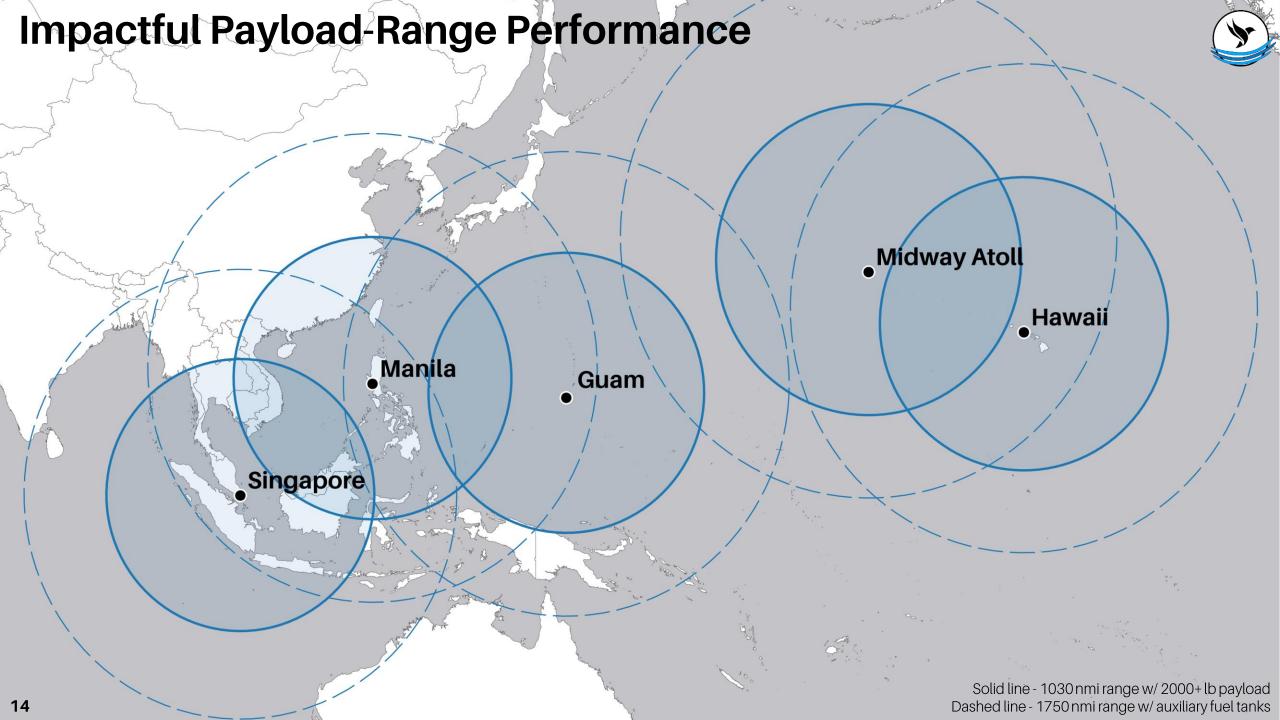
#### Polaris offers strong defense applications across the DOD

Current runway independent solutions suffer from high maintenance, fuel burn, and complexity





Polaris offers runway independence with a right-sized simple fixed wing solution









54 lb MTOW

12 ft Wingspan 3D Printed



Designed, built, and flown 5 electric testbed, competition, and full-scale aircraft



#### **Advisory Board**



Major General Eric T. Hill
Dep. Commander, Air Force Special
Operations Command (Ret.)



Former FAA Administrator
Chief Regulatory Officer at Archer Aviation



<u>Dr. Brian German</u>
Director of Georgia Tech's Center for
Urban and Regional Air Mobility



William J. Fredericks
Founder of Advanced Aircraft Company
Led NASA GL-10 Hybrid-Electric Program