

# REGENT





# What is a seaglider & why build one?

Seagliders combine the best features of airplanes & boats



- High speed
- Comfortable ride quality

- Maritime certification & testing
- Streamlined passenger security

Seaglider

Seagliders fly a few feet over water on a cushion of air trapped between the wing and the surface – otherwise known as “ground effect”.

✓ Double the range of an electric aircraft

✓ Always over a safe place to land





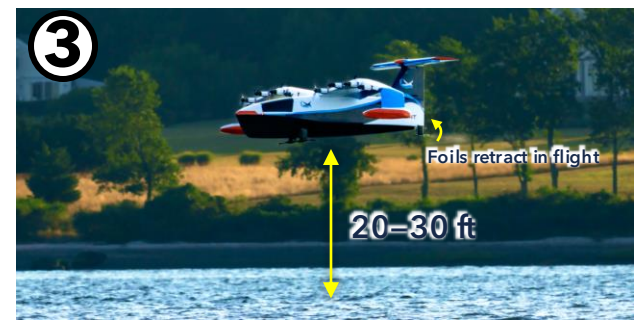
# 3-mode operation enables wave tolerance and crowded harbor navigation



## Float



## Foil



## Fly

<b>Speed</b>	< 20 mph (17 kts)	20 - 50 mph (17-45 kts)	50 - 180 mph (35-160 kts)
--------------	-------------------	-------------------------	---------------------------

### Max wave height

Comfort: 2 ft (0.6 m)  
Seakeeping: > 8 ft (2.5 m)

5 ft (1.5 m)  
*Previous ground-effect vehicles have lacked this intermediate mode.*

**Always** 10-30 ft (3-10 m)  
above wave peaks  
(only constrained by emergency seakeeping)





# Hydrofoils enable wave tolerance compared to planing hulls



Wave tolerance comparison of hydrofoil vs conventional hull boat



Wave tolerance demonstration of hydrofoils on REGENT's 1/4 scale seaglider prototype



# Hydrofoils enable comfortable and wave tolerant takeoffs



A conventional WIG lumbers, shudders, and shakes into the air even in calm waters



REGENT's ¼ scale seaglider prototype effortlessly glides through waves on its hydrofoil before taking off

# REGENT plans to build two seaglider products



Viceroy



Monarch

	Viceroy	Monarch
Passengers	12	100
Entry to Service	Mid decade	Late decade
Operational Range (end-of-life batteries)	180 miles (300 km) (with existing li-ion batteries*)	≈500 miles (800 km) (with future battery or hydrogen tech)
Payload	3,500 lbs (1,600 kg)	25,000 lbs (11,000 kg)
Wingspan	65 ft (20 m)	≈100 ft (30 m)
Max weight	15,000 lbs (6,800 kg)	110,000 lbs (50,000 kg)

# 40%

Of The World's  
Population Lives  
In Coastal  
Communities



Coastal Cities With A  
Population > 1 Million

Source: "Population, Landscape, And Climate  
Estimates (PLACE), v3: National Aggregates of  
Geospatial Data Collection (NAGDC) | SEDAC"





Turns out a **lot of transportation** is coastal

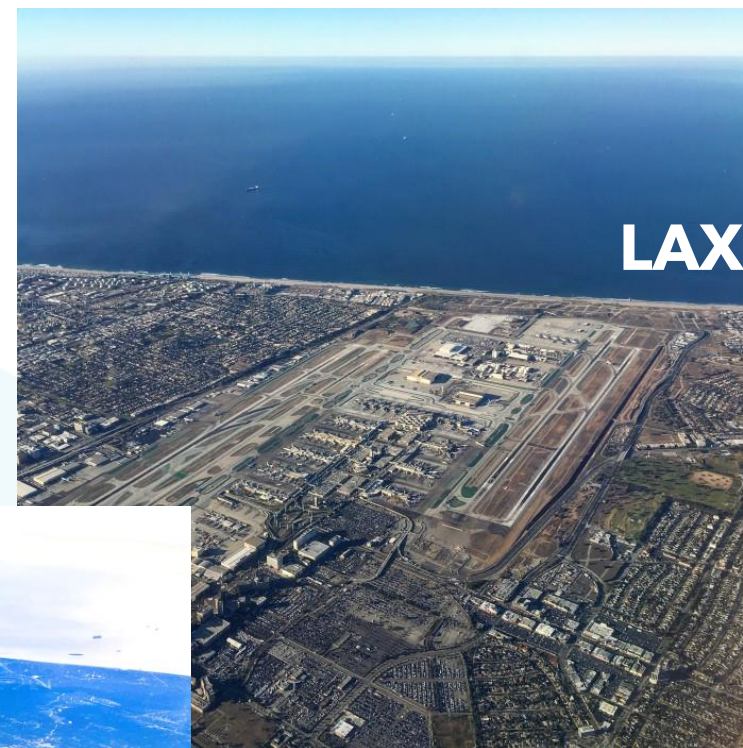


Global Airline Industry  
**4.5B** passengers



Global Ferry Industry  
**4.3B** passengers

Turns out a lot of the **major airports** are coastal



# Top routes in North America and Hawaii

## 75M pax by 2030

Seagliders, future battery tech, for show routes (<500 miles)



— Accessible with current battery technology — — Accessible with future battery technology

# Top routes in Northern Europe

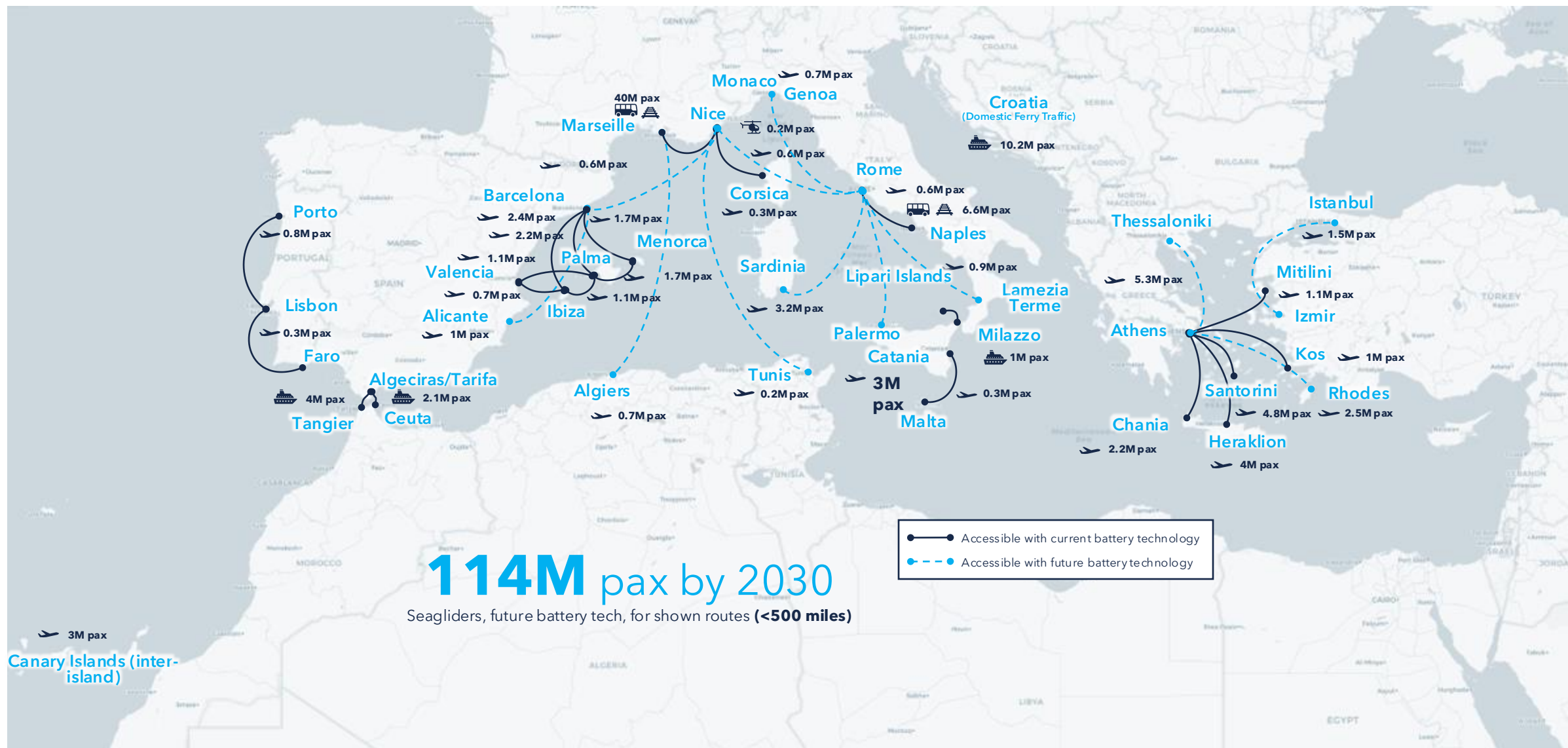
## 65M pax by 2030

Seagliders, future battery tech, for show routes (<500 miles)

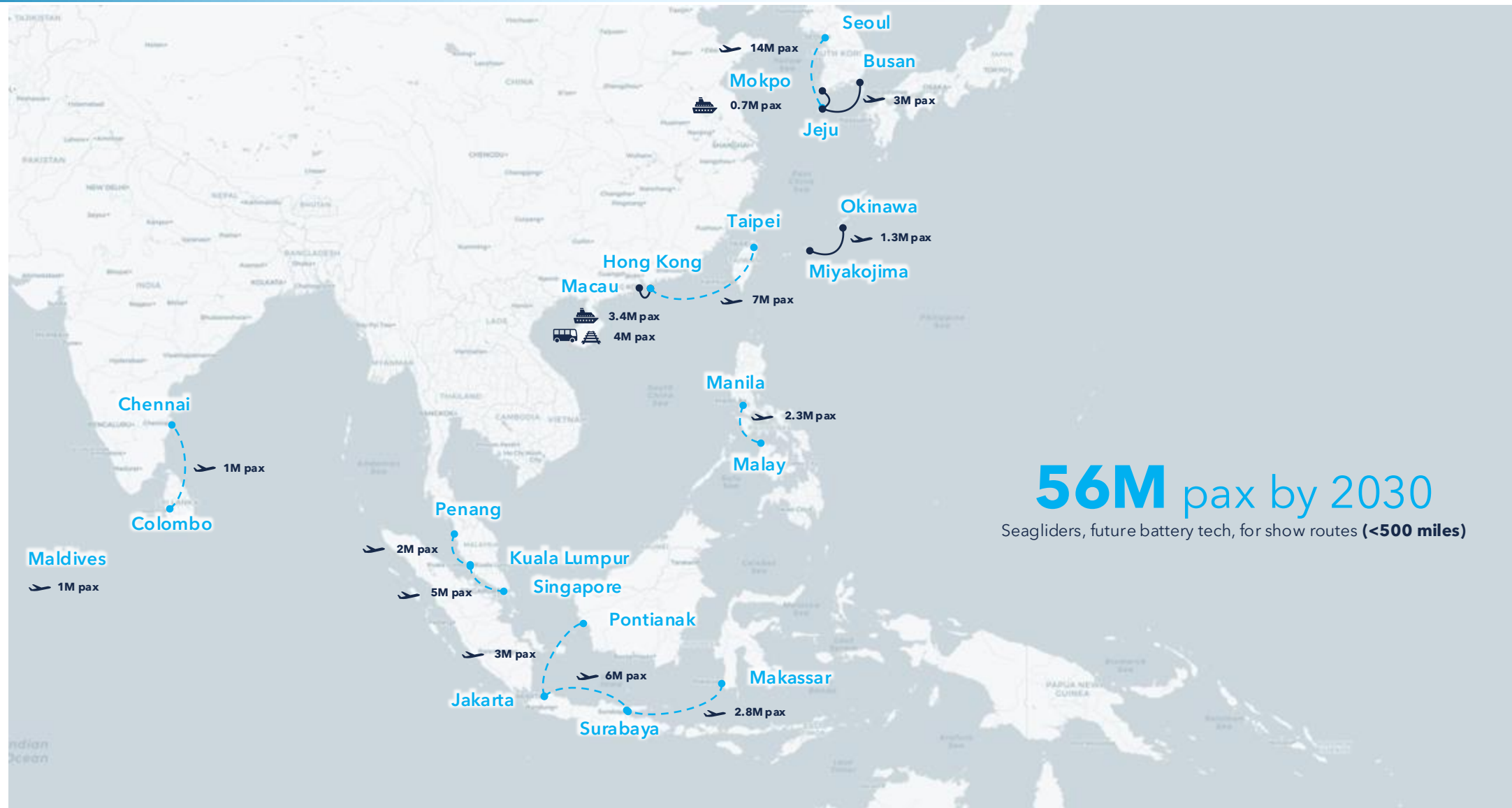


— Accessible with current battery technology — — Accessible with future battery technology

# Top routes in Mediterranean Europe



# Top seaglider routes in Asia



**56M** pax by 2030  
 Seagliders, future battery tech, for show routes (<500 miles)

—●— Accessible with current battery technology    - - - ● - - - Accessible with future battery technology

# Top routes in Middle East



—●— Accessible with current battery technology    ●- - -● Accessible with future battery technology

# The "Chesapeake Connector"

175 miles in ~1 hour

\$110/ticket

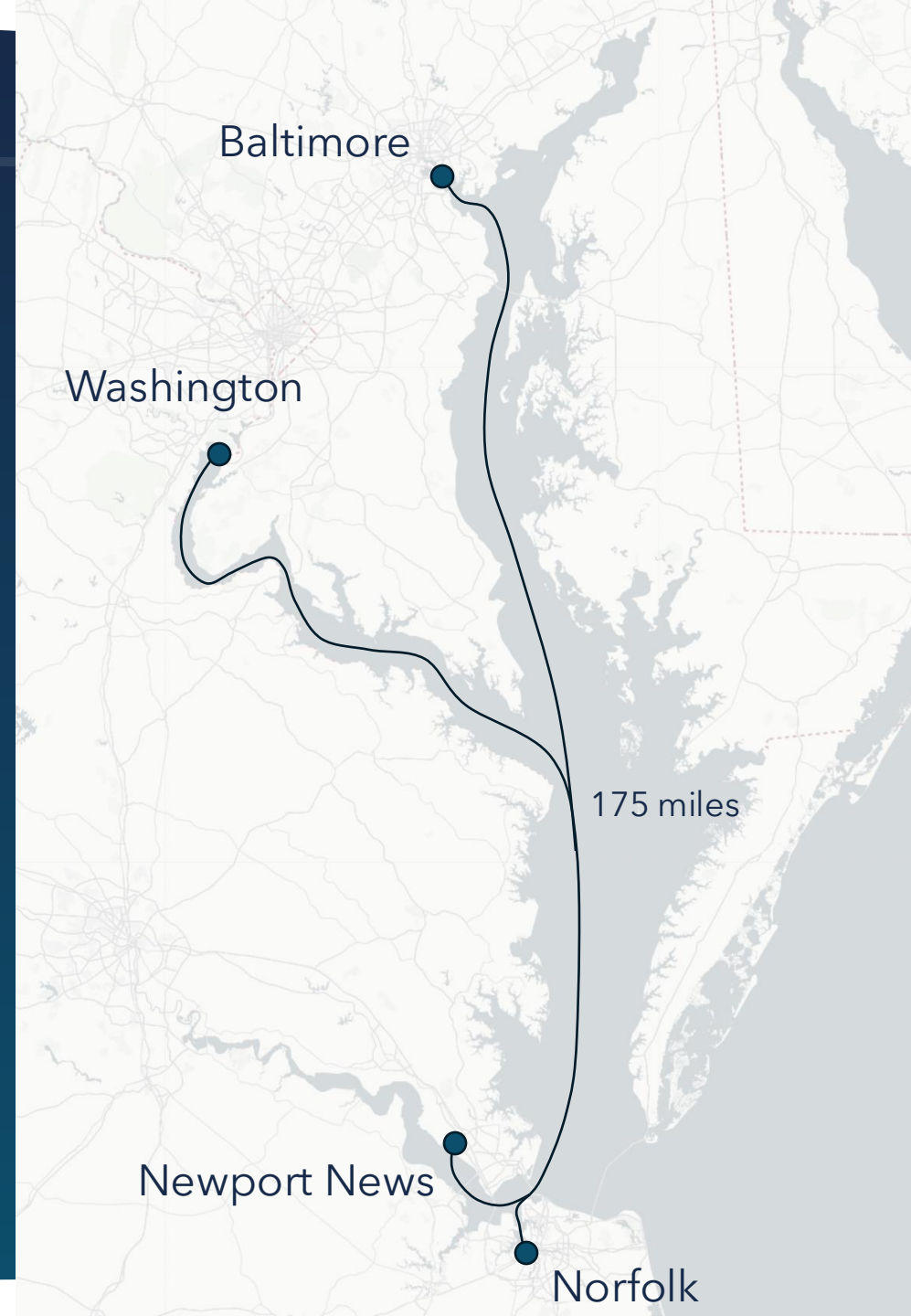


Viceroy  
12 seats

\$55/ticket

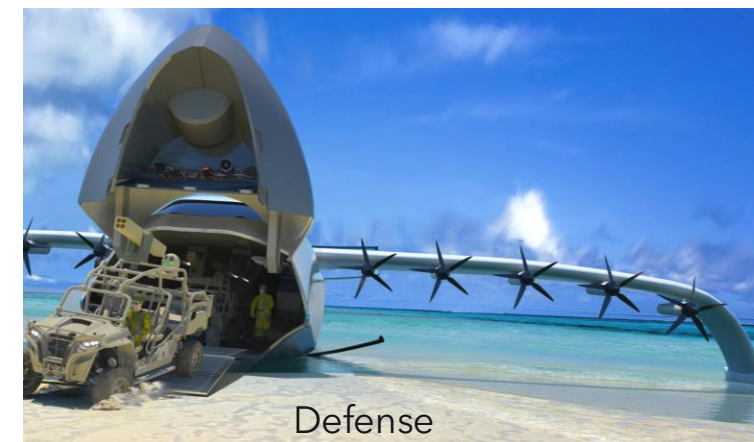
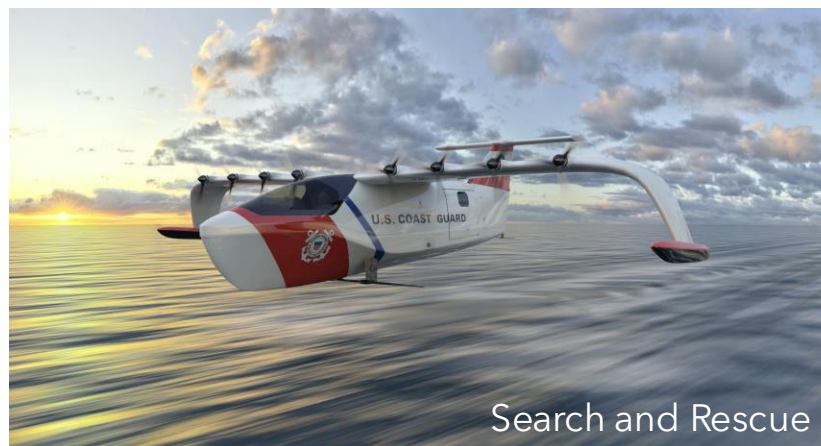
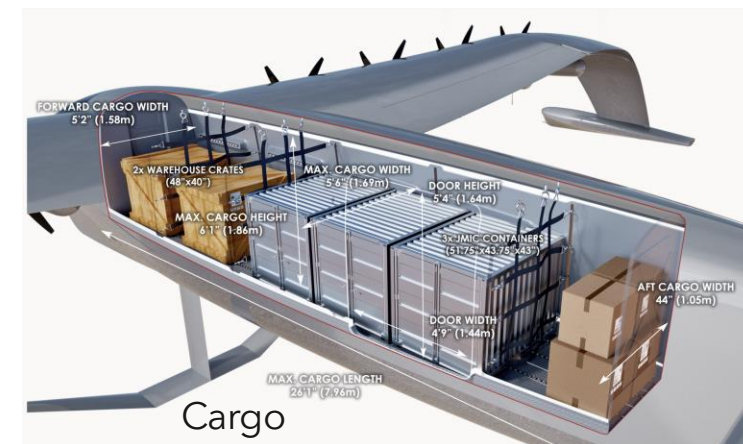
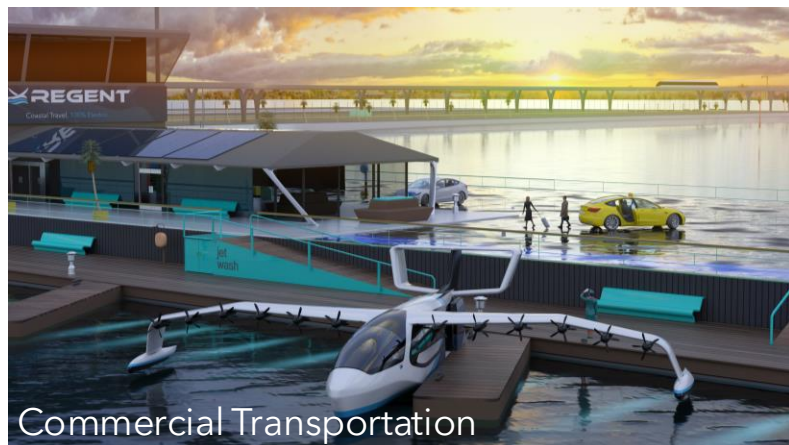


Monarch  
100 seats





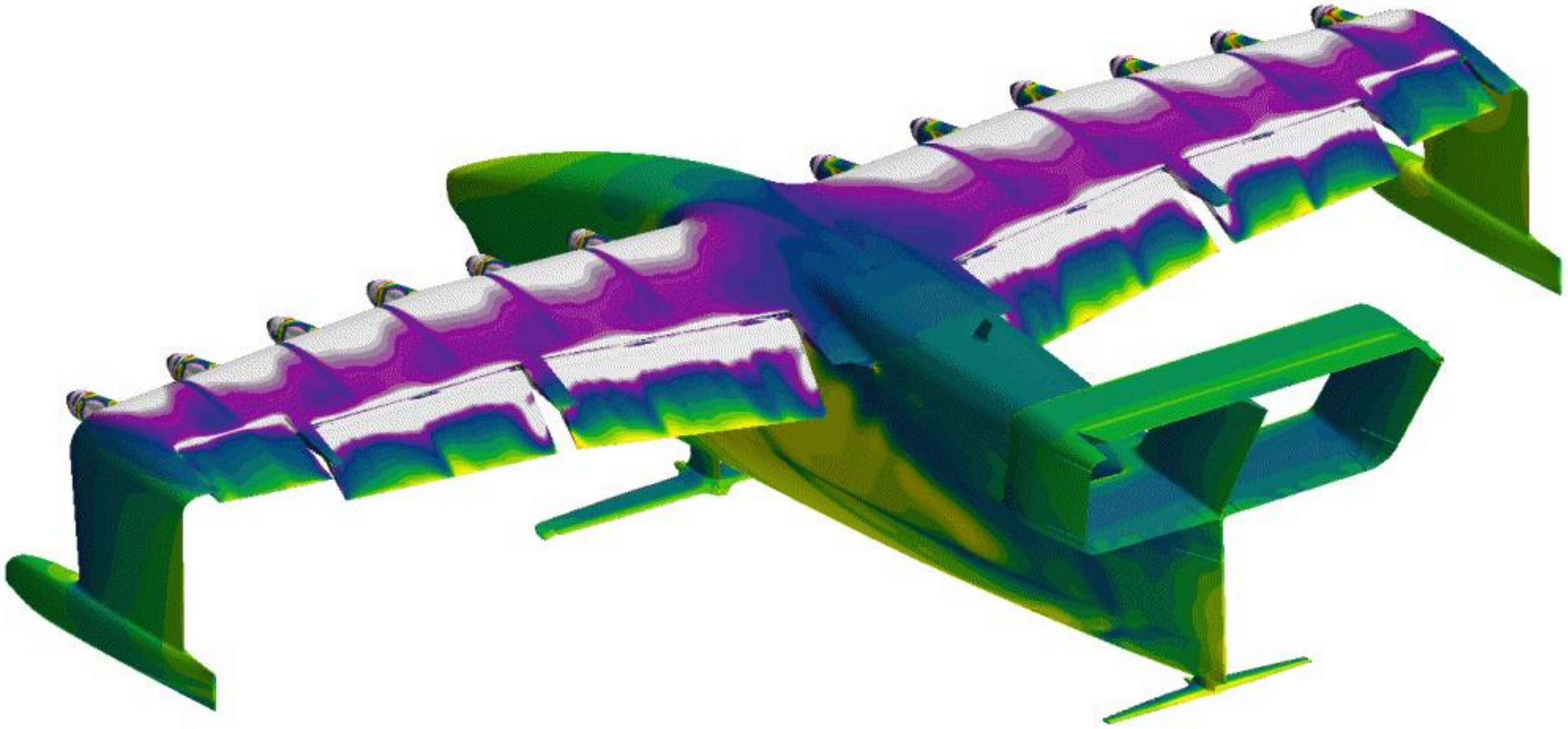
# Seaglidors are a multi-use vehicle for multiple mission sets



# REGENT









# Seaglider technology has been de-risked

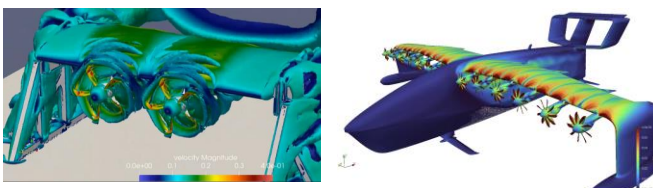
## Float>Foil>Fly Mode Transitions

Derisked with 1/4 scale (18' wingspan, 400 lb) prototype



## Full-scale Aerodynamics

Derisked with full-scale blown-wing test stand



Full-scale experimentation validates computational fluid dynamics (CFD) models and informs digital twin simulation



## On-water Operations

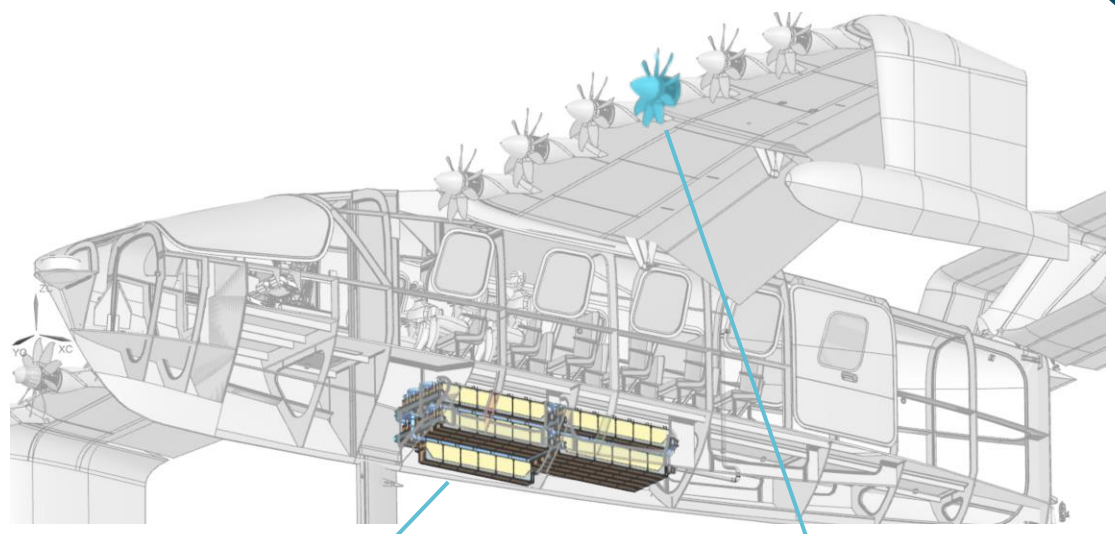
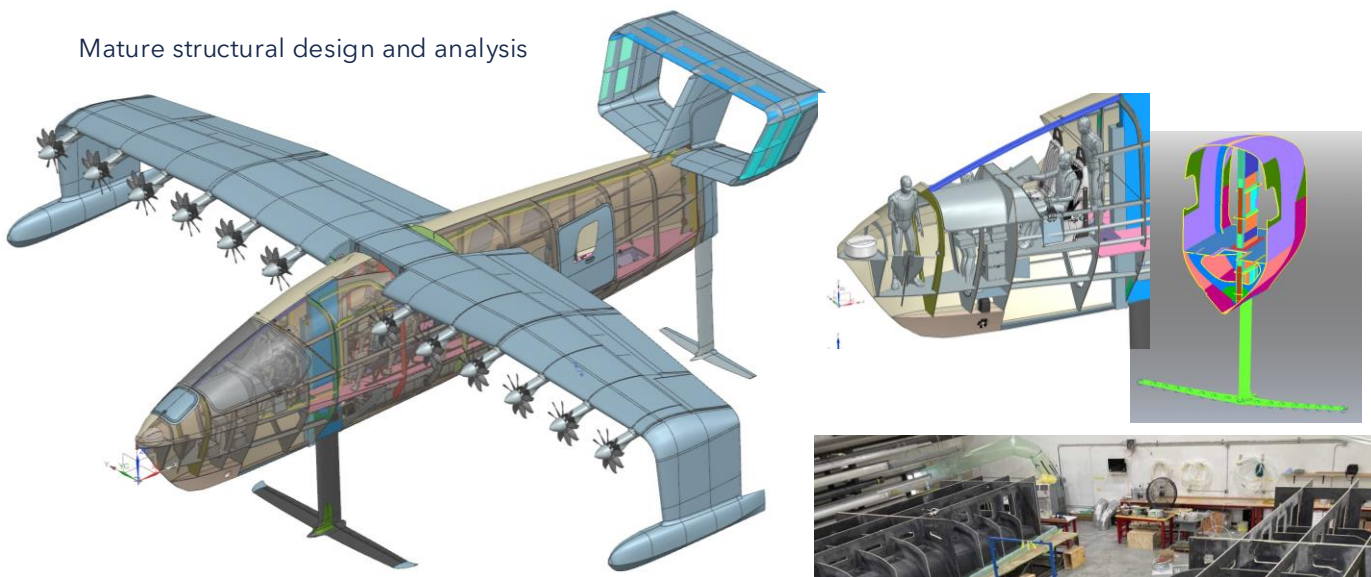
Derisked with testing in relevant crowded harbors



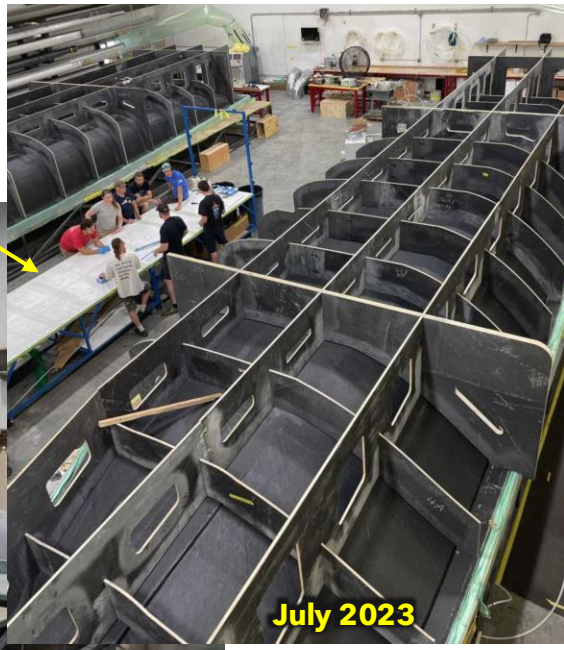


# Viceroy full-scale prototype program on schedule for human flight in 2024

Mature structural design and analysis



Carbon fiber hull molds under construction



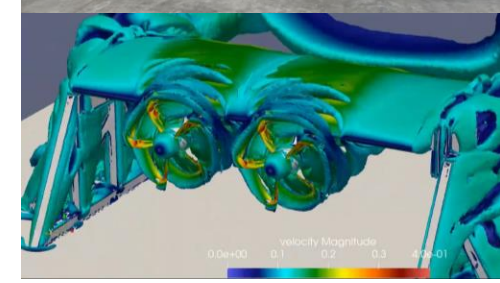
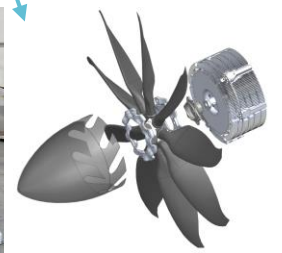
Flight batteries on-hand and under eval



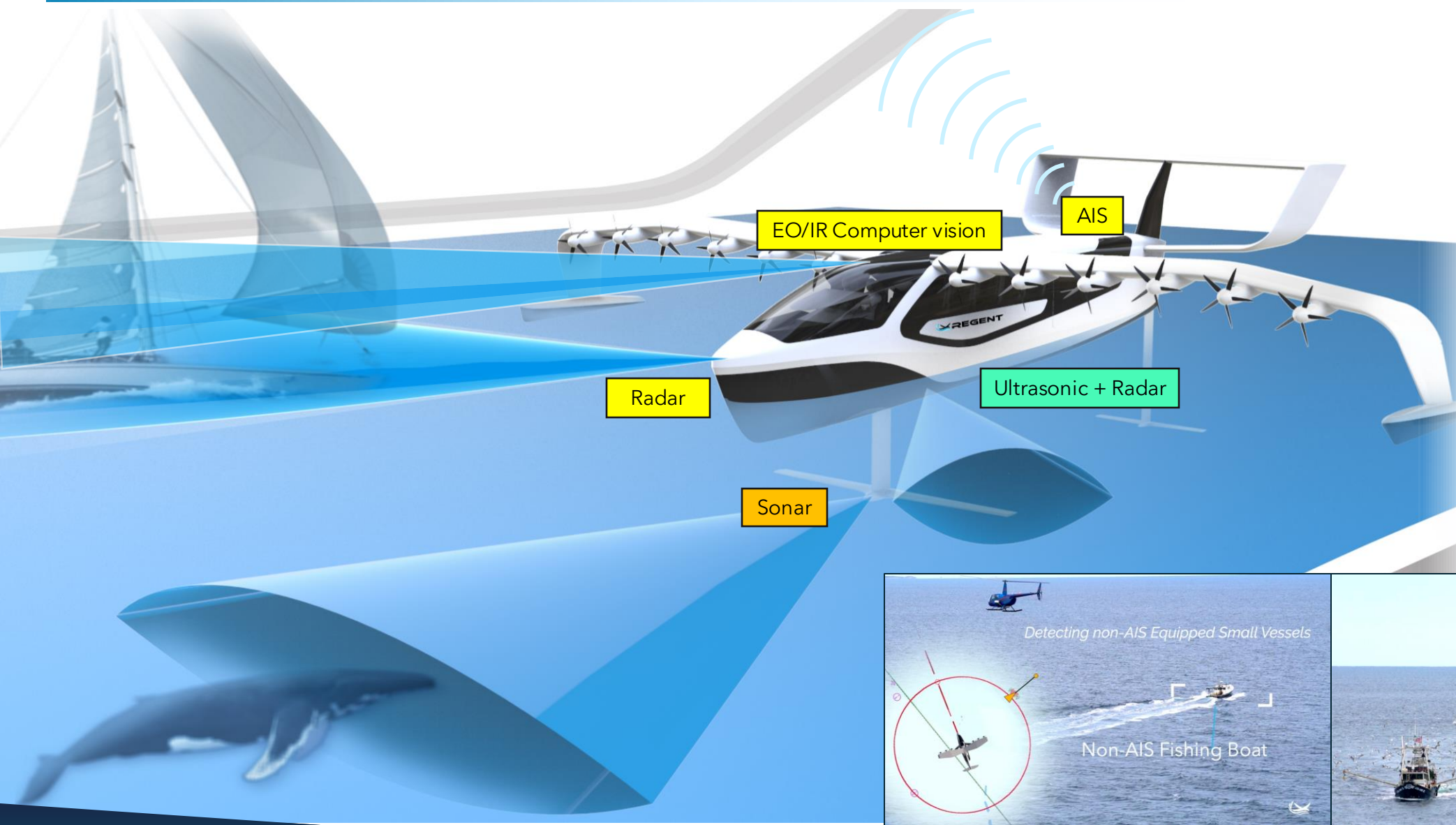
Blown wing aero test stand



Motor-prop assembly integrated and under eval



# Seaglider perception system under test and development



## Surface Perception

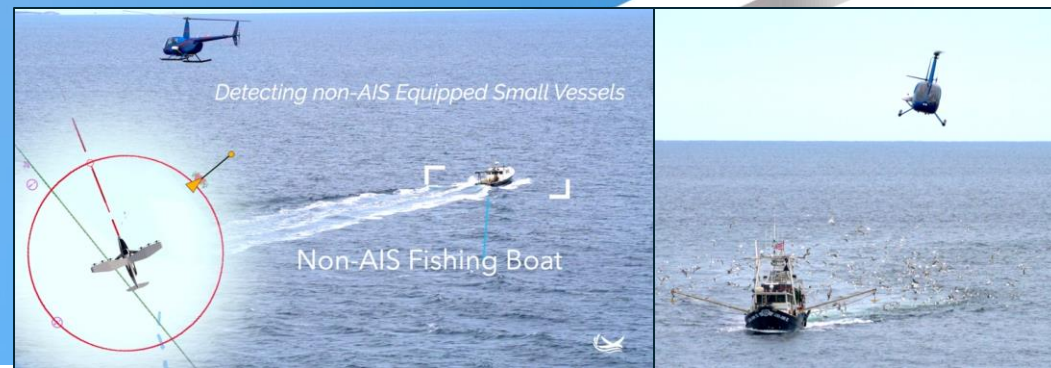
Fusion of radar, AIS, and infrared computer vision detects obstacles on waters surface

## Underwater Perception

Hydrofoil-mounted sonar detects sub-surface obstacles

## Altitude & Wave Perception

Radar (high-altitude and forward looking) and ultrasound (low-altitude) detect water's surface and wave state



# Commercial







# Seaglider order holders and strategic investors on 6 continents

Over **500 seagliders** representing **over \$8B** on order



## Total Orders

**318**



Viceroy  
12 seats

**211**



Monarch  
100 seats





**MOKULELE**  
AIRLINES

**SOUTHERN AIRWAYS**  
EXPRESS

MOKULELE

Ke'ehi  
Lagoon  
Seaglider  
Terminal

The Boathouse  
Cafe

SOUTHERN

# REGENT has ensured seaglider operational viability with ecosystem development in major markets



## Hawaii



Orders and strategic investments from major regional operators



Co-funding of seaglider feasibility study. Commitment to build infrastructure and finance seagliders.



Endorsements and collaborations with community and environmental groups

## Miami



Orders from major regional operators



Joint public-private partnership currently exploring site selection at PORT MIAMI and designing dock



Request from the city and county for dock and charger requirements

## New Zealand



Orders constituting largest private transportation deal in NZ



Support voiced by three major NZ cities including the capital of Wellington and MOUs in progress with three others including Auckland



Northport in Whangarei offering support in housing the OceanFlyer maintenance base and training institute

## Nice, France



VILLE DE NICE

**MOU from City of Nice:**  
 "Your project ...constitutes a relevant mobility solution with indisputable advantages for our region... My team will ... accompany you when the time comes to implement it... rest assured of my support" - Mayor Christian Estrosi, Nice, France



TransDev to partner with REGENT on City of Nice RFI response for Nice to Monaco connector service



Partnership discussions with Engie and Port de Nice, supported by City of Nice, advancing towards charging infrastructure development

# Hawaii Ecosystem | Hawaii Seaglider Initiative (HSI)

## Founding Members



Co-Chair



Co-Chair



## Discussion Groups

Four Critical Workspaces for Corporate, Community and Government Stakeholder Engagement



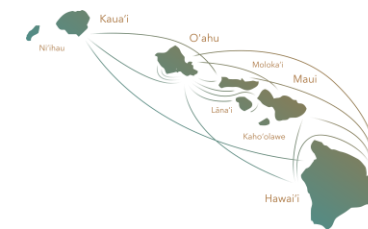
Hawai'i  
Seaglider  
Initiative

Infrastructure & Private  
Industry

Community, Culture, &  
Environment

Resiliency  
(Energy, Food, Transit)

Education & Workforce  
Development

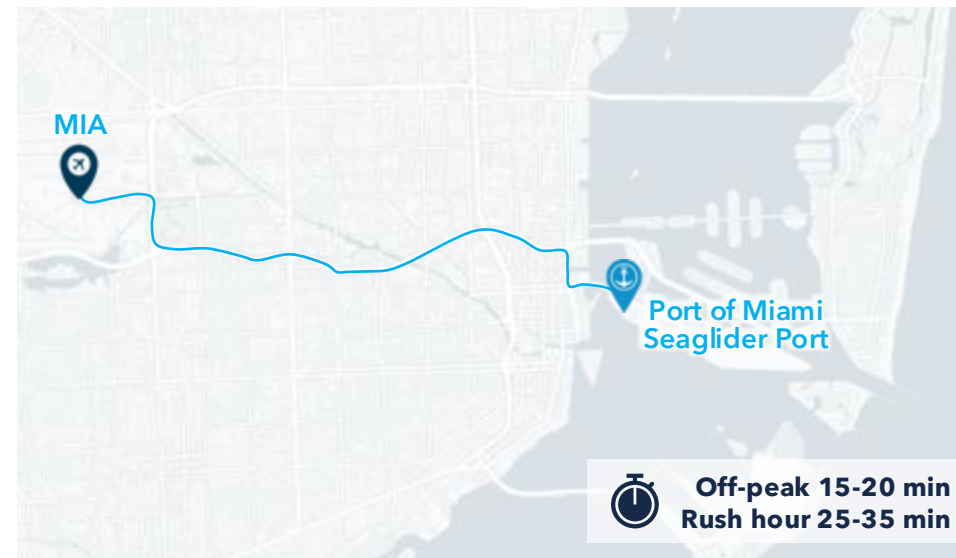


## Honolulu Airport Pier



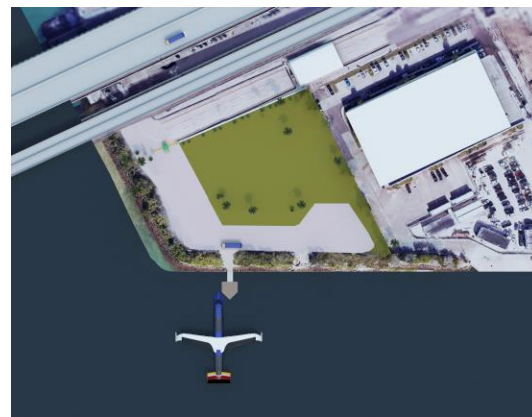
# Miami Ecosystem | Port of Miami

**Ongoing discussion** to turn an unutilized portion of Port of Miami into a seaglider port. REGENT is actively lobbying and in comms with the county mayor and other officials



## Dodge Island Seaglider Base

## Growth Over Time



1300 Pax / Day

2700 Pax / Day

4000+ Pax / Day

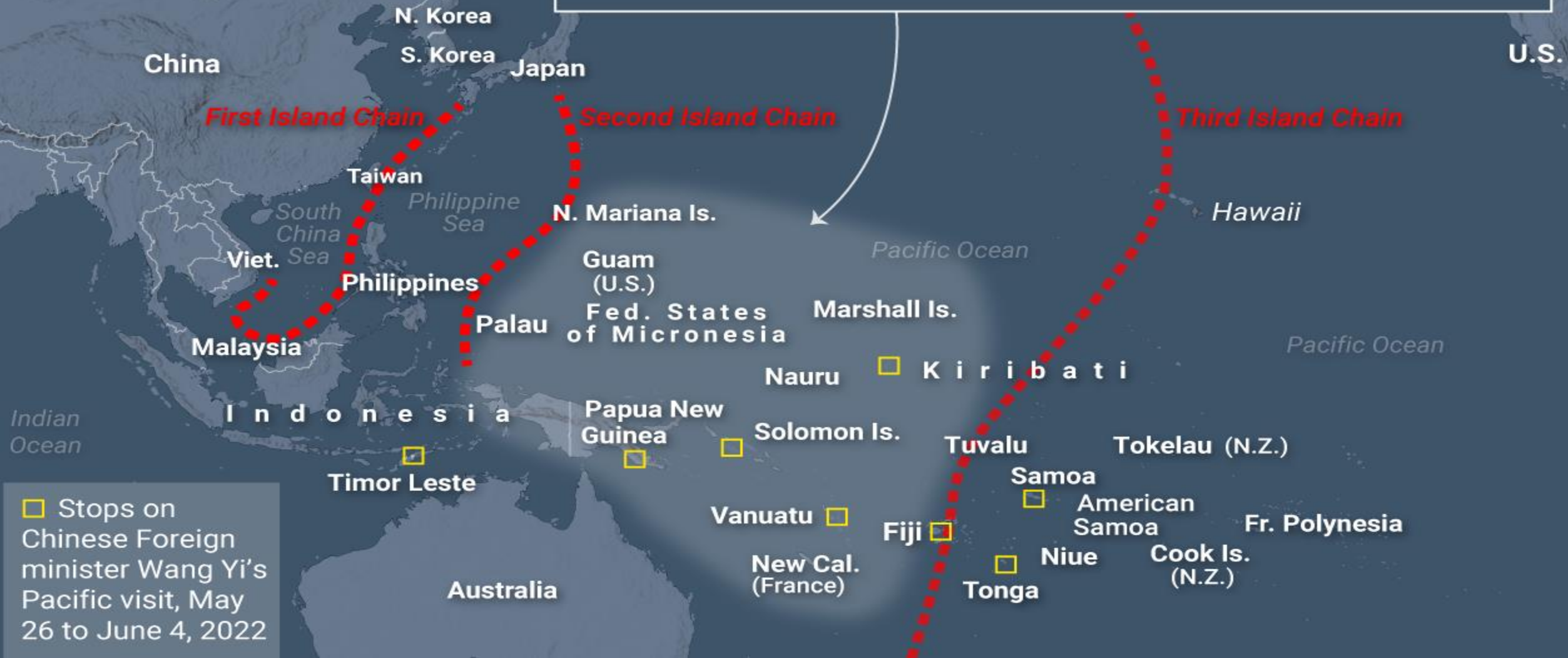
# Defense



# China's Moves Beyond the South China Sea

## Chinese activities in the Pacific Islands include:

- Pressuring countries to downgrade diplomatic relations with Taiwan
- Leveraging regional investments to increase relations and reduce countries' economic ties with the U.S. and its partners
- Controlling narratives and shifting public opinion away from democratic values toward an authoritarian Chinese model



□ Stops on Chinese Foreign minister Wang Yi's Pacific visit, May 26 to June 4, 2022

# REGENT's advisory team provides world-class experience in key areas



**General Robert Blake Neller, USMC (ret.)**

Former Commandant, U.S. Marine Corps



**Admiral William Moran (ret.)**

Former Vice Chief of Naval Operations,  
U.S. Navy



**Admiral Charles Ray, USCG (ret.)**

Former Vice Commandant,  
U.S. Coast Guard



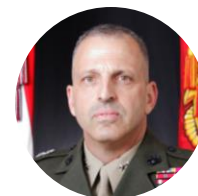
**James "Hondo" Geurts (ret.)**

Former Undersecretary of the Navy,  
U.S. Navy



**LtGen George Trautman, USMC (ret.)**

Former Deputy Commandant, Aviation  
U.S. Marine Corps



**LtGen Michael Dana, USMC (ret.)**

Former Deputy Commandant, Installations & Logistics  
U.S. Marine Corps



**Dennis Muilenburg**

Former CEO, Boeing



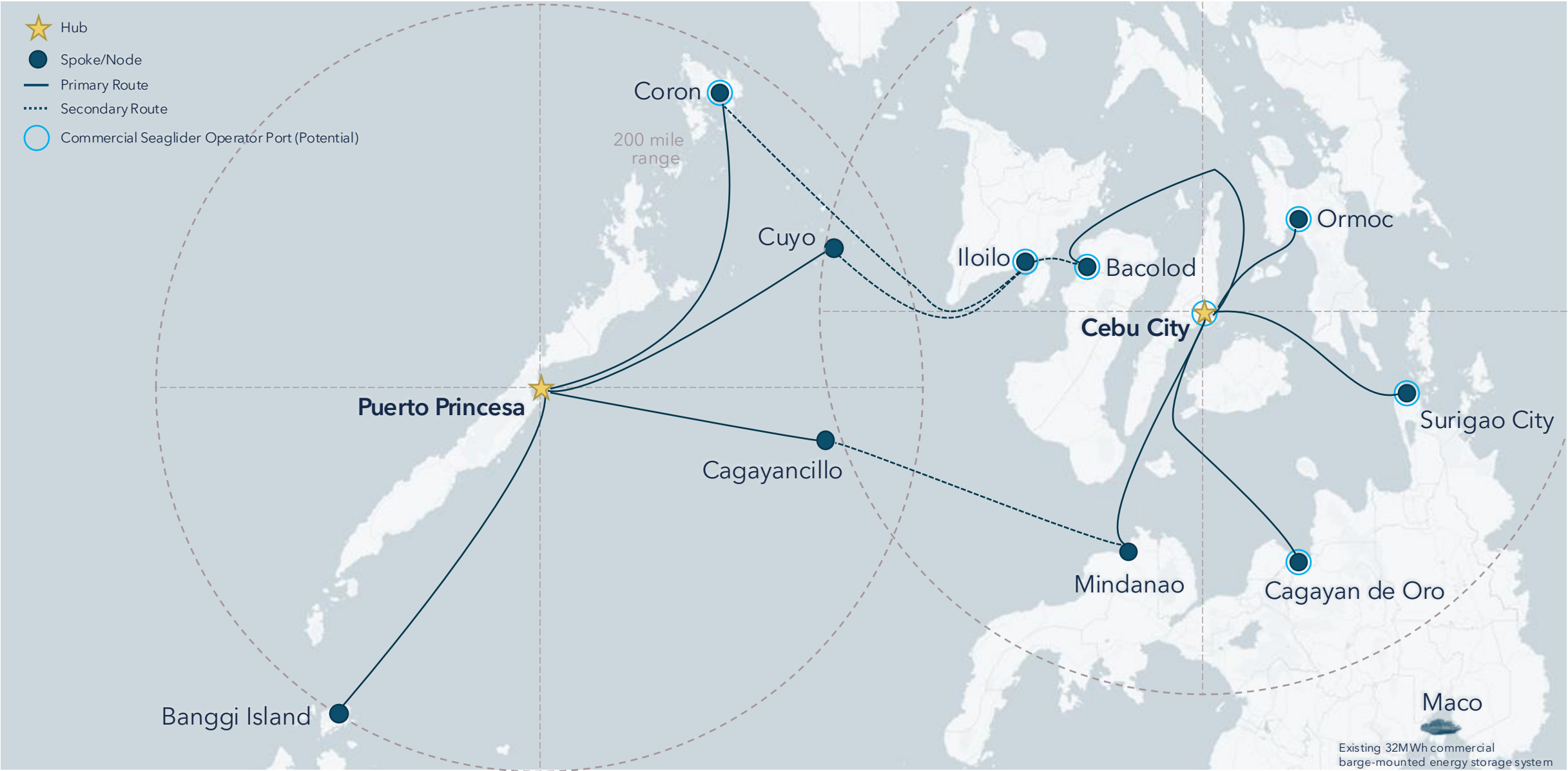
**David Neeleman**

Founder and CEO, Breeze Airways  
Founder, JetBlue Airways, Azul Airlines, WestJet





# Hub, spoke & node with 200 mile range: Indo-Pacific (Philippines)





# Hub, spoke & node with 200 mile range: Indo-Pacific (Singapore)





# REGENT seaglider family of systems



★ **Squire**



Viceroy (electric)



★ **Viceroy** (hybrid)



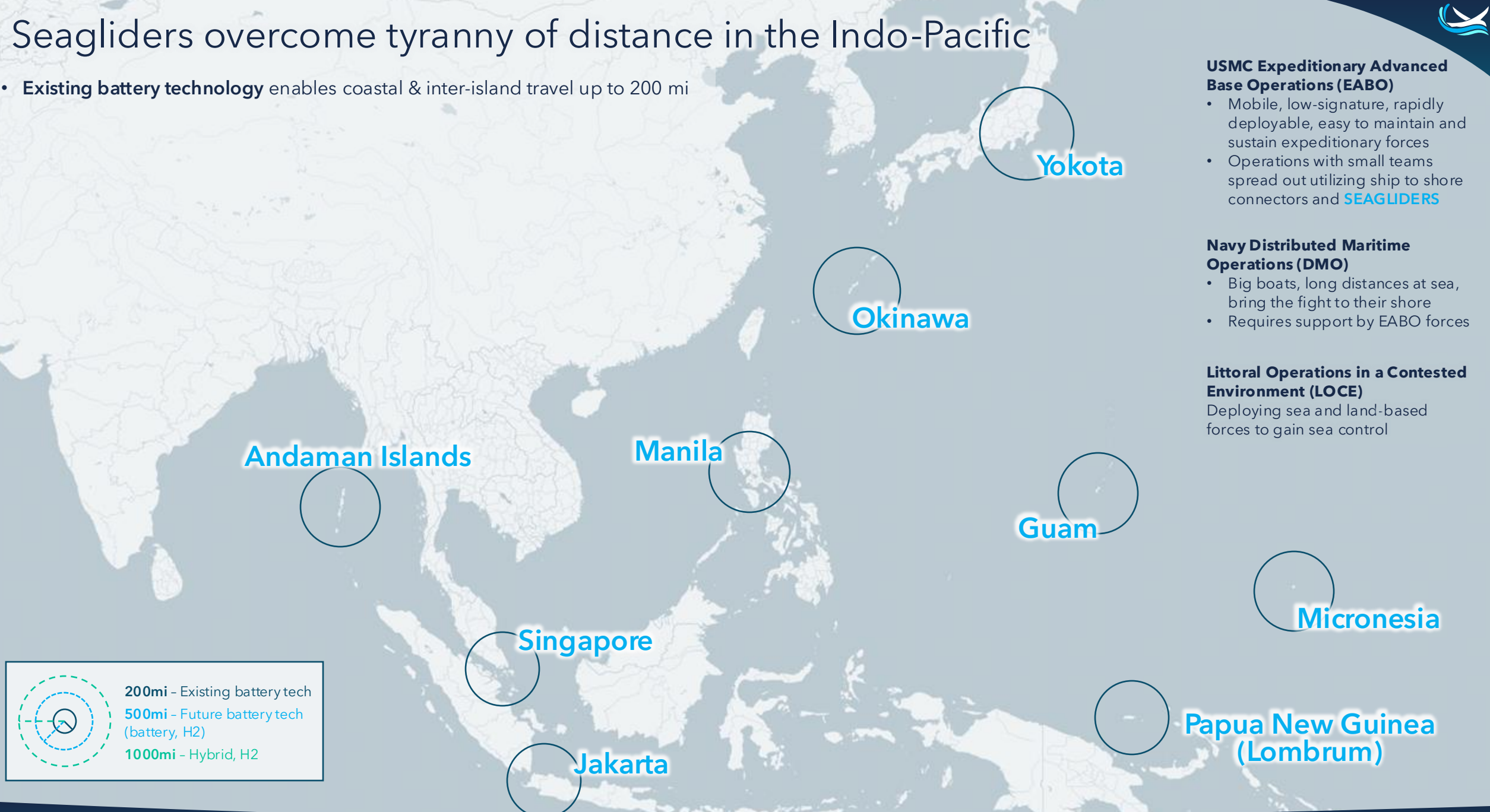
Monarch

Passengers	Unmanned	12	12	100
Operational Range (end-of-life batteries)	40+ miles (65 km) (with existing li-ion batteries*)	200 miles (320 km) (with existing li-ion batteries*)	<b>1,000 miles</b> (1600 km) (with existing PT-6 engines*)	500 miles (800 km) (w/ future battery or hydrogen tech)
Payload	<b>50 lbs</b> (23 kg)	3,500 lbs (1,600 kg)	3,500 lbs (1,600 kg)	25,000 lbs (11,000 kg)
Wingspan	18 ft (5.5 m)	65 ft (20 m)	65 ft (20 m)	≈100 ft (30 m)
Max weight	400 lbs (180 kg)	15,000 lbs (6,800 kg)	15,000 lbs (6,800 kg)	110,000 lbs (50,000 kg)



# Seagliders overcome tyranny of distance in the Indo-Pacific

- Existing battery technology enables coastal & inter-island travel up to 200 mi



200mi - Existing battery tech  
500mi - Future battery tech (battery, H2)  
1000mi - Hybrid, H2

## USMC Expeditionary Advanced Base Operations (EABO)

- Mobile, low-signature, rapidly deployable, easy to maintain and sustain expeditionary forces
- Operations with small teams spread out utilizing ship to shore connectors and **SEAGLIDERS**

## Navy Distributed Maritime Operations (DMO)

- Big boats, long distances at sea, bring the fight to their shore
- Requires support by EABO forces

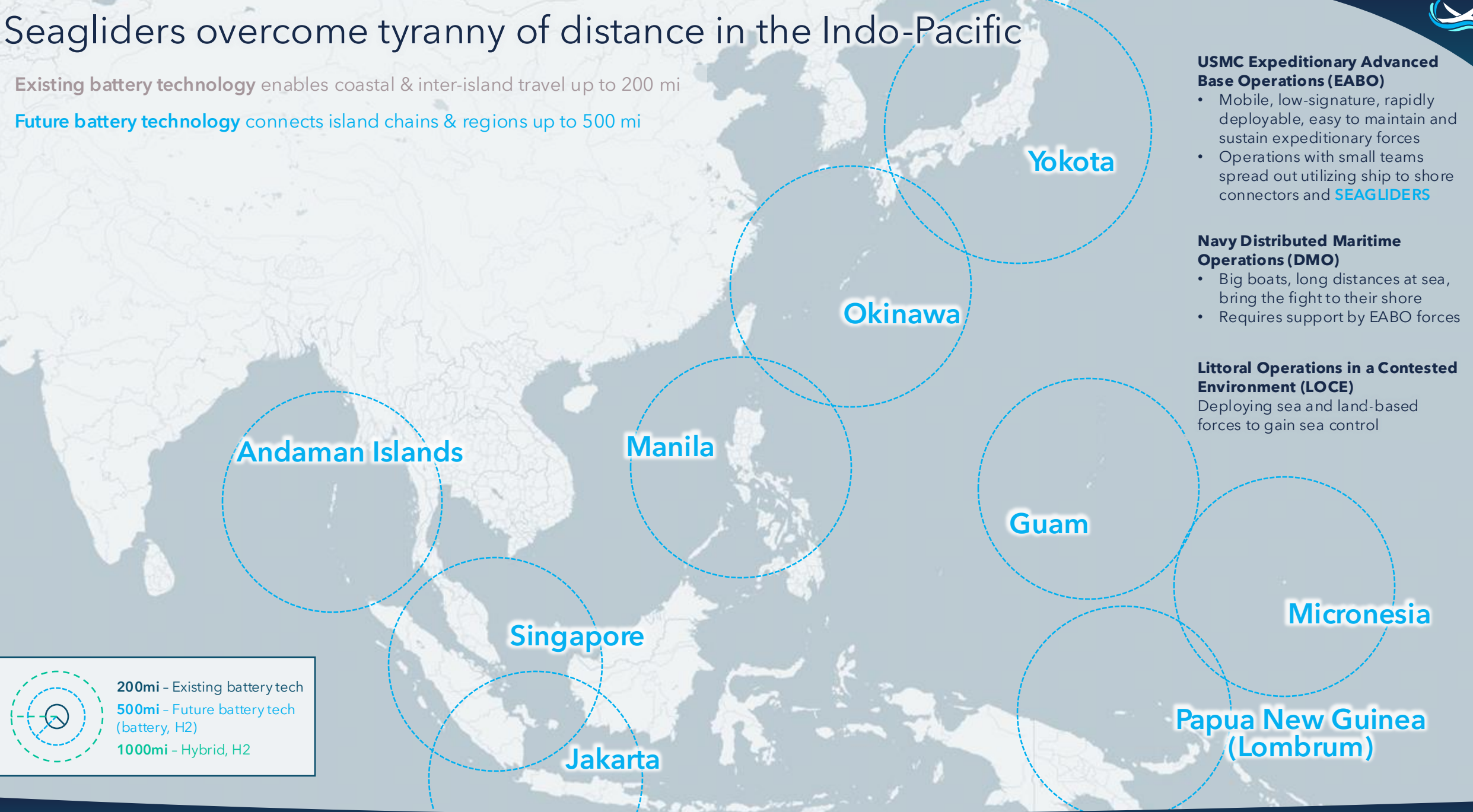
## Littoral Operations in a Contested Environment (LOCE)


Deploying sea and land-based forces to gain sea control



# Seagliders overcome tyranny of distance in the Indo-Pacific

- Existing battery technology enables coastal & inter-island travel up to 200 mi
- Future battery technology connects island chains & regions up to 500 mi





- 200mi - Existing battery tech
- 500mi - Future battery tech (battery, H2)
- 1000mi - Hybrid, H2

## USMC Expeditionary Advanced Base Operations (EABO)

- Mobile, low-signature, rapidly deployable, easy to maintain and sustain expeditionary forces
- Operations with small teams spread out utilizing ship to shore connectors and **SEAGLIDERS**

## Navy Distributed Maritime Operations (DMO)

- Big boats, long distances at sea, bring the fight to their shore
- Requires support by EABO forces

## Littoral Operations in a Contested Environment (LOCE)

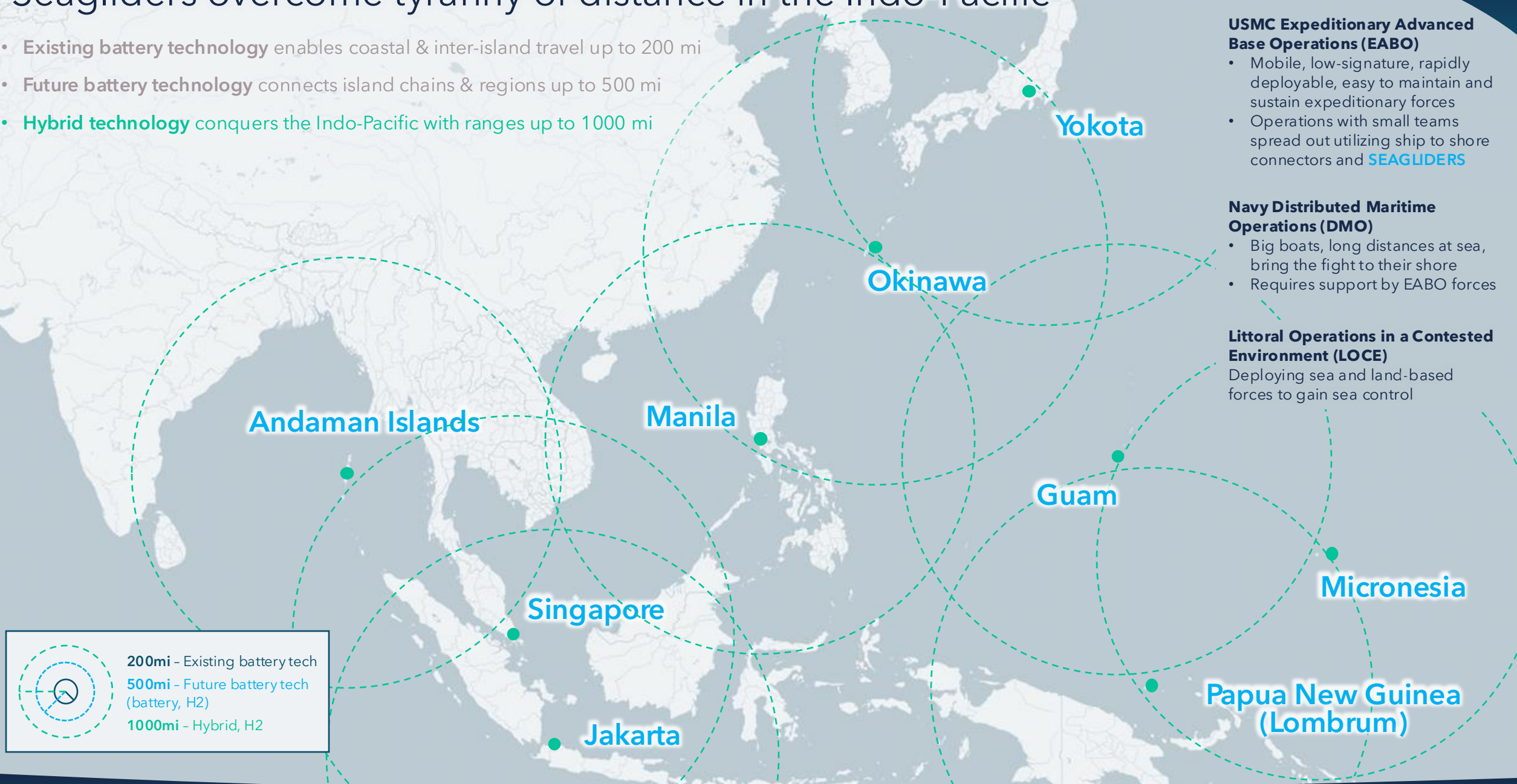
Deploying sea and land-based forces to gain sea control



# Seaglidors overcome tyranny of distance in the Indo-Pacific

- Existing battery technology enables coastal & inter-island travel up to 200 mi
- Future battery technology connects island chains & regions up to 500 mi
- Hybrid technology conquers the Indo-Pacific with ranges up to 1000 mi

200mi - Existing battery tech  
500mi - Future battery tech (battery, H2)  
1000mi - Hybrid, H2



## USMC Expeditionary Advanced Base Operations (EABO)

- Mobile, low-signature, rapidly deployable, easy to maintain and sustain expeditionary forces
- Operations with small teams spread out utilizing ship to shore connectors and **SEAGLIDERS**

## Navy Distributed Maritime Operations (DMO)

- Big boats, long distances at sea, bring the fight to their shore
- Requires support by EABO forces

## Littoral Operations in a Contested Environment (LOCE)

Deploying sea and land-based forces to gain sea control

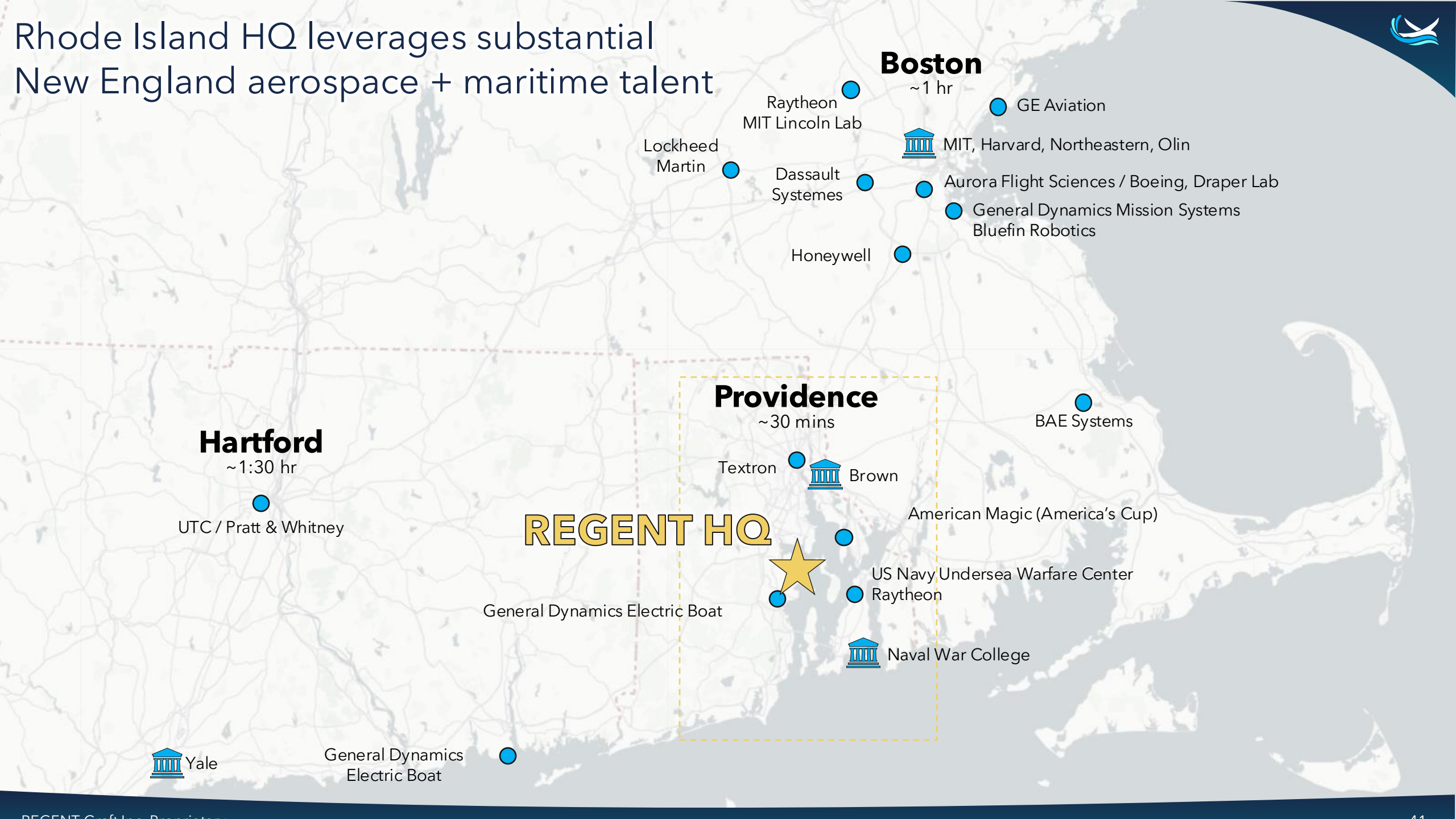
# Rhode Island growth and seaglider manufacturing







# Rhode Island HQ leverages substantial New England aerospace + maritime talent



## Boston

~ 1 hr

- Raytheon
- MIT Lincoln Lab
- Lockheed Martin
- Dassault Systemes
- Honeywell
- GE Aviation
- MIT, Harvard, Northeastern, Olin
- Aurora Flight Sciences / Boeing, Draper Lab
- General Dynamics Mission Systems
- Bluefin Robotics

## Providence

~30 mins

## REGENT HQ

- Textron
- Brown
- American Magic (America's Cup)
- US Navy Undersea Warfare Center
- Raytheon
- Naval War College
- General Dynamics Electric Boat
- BAE Systems

## Hartford

~ 1:30 hr

- UTC / Pratt & Whitney



- General Dynamics Electric Boat

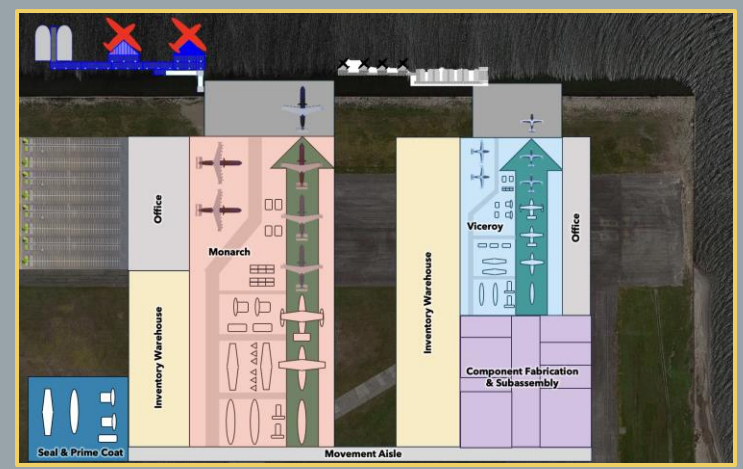


# The REGENT Campus: One home from prototyping through manufacturing

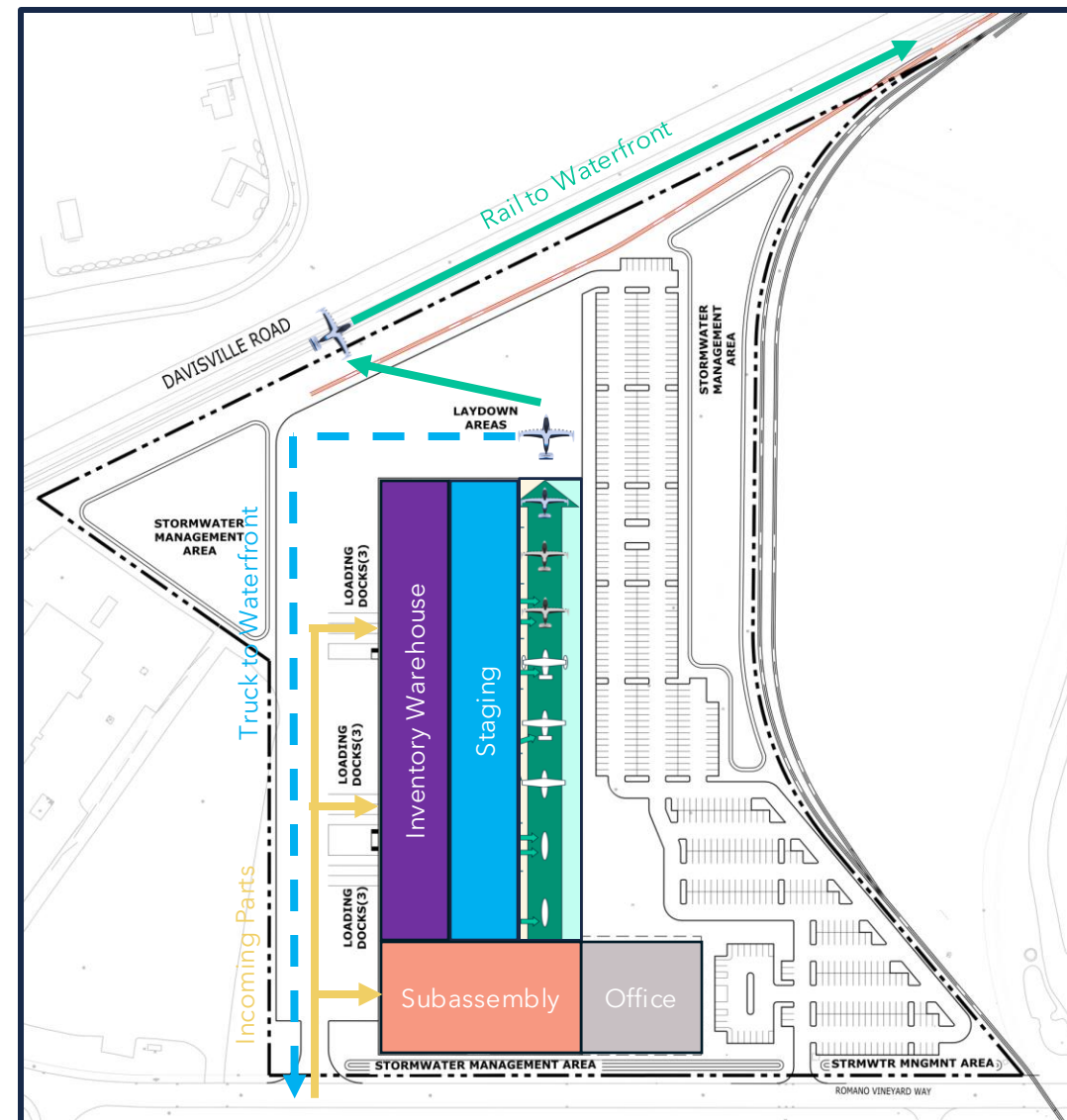
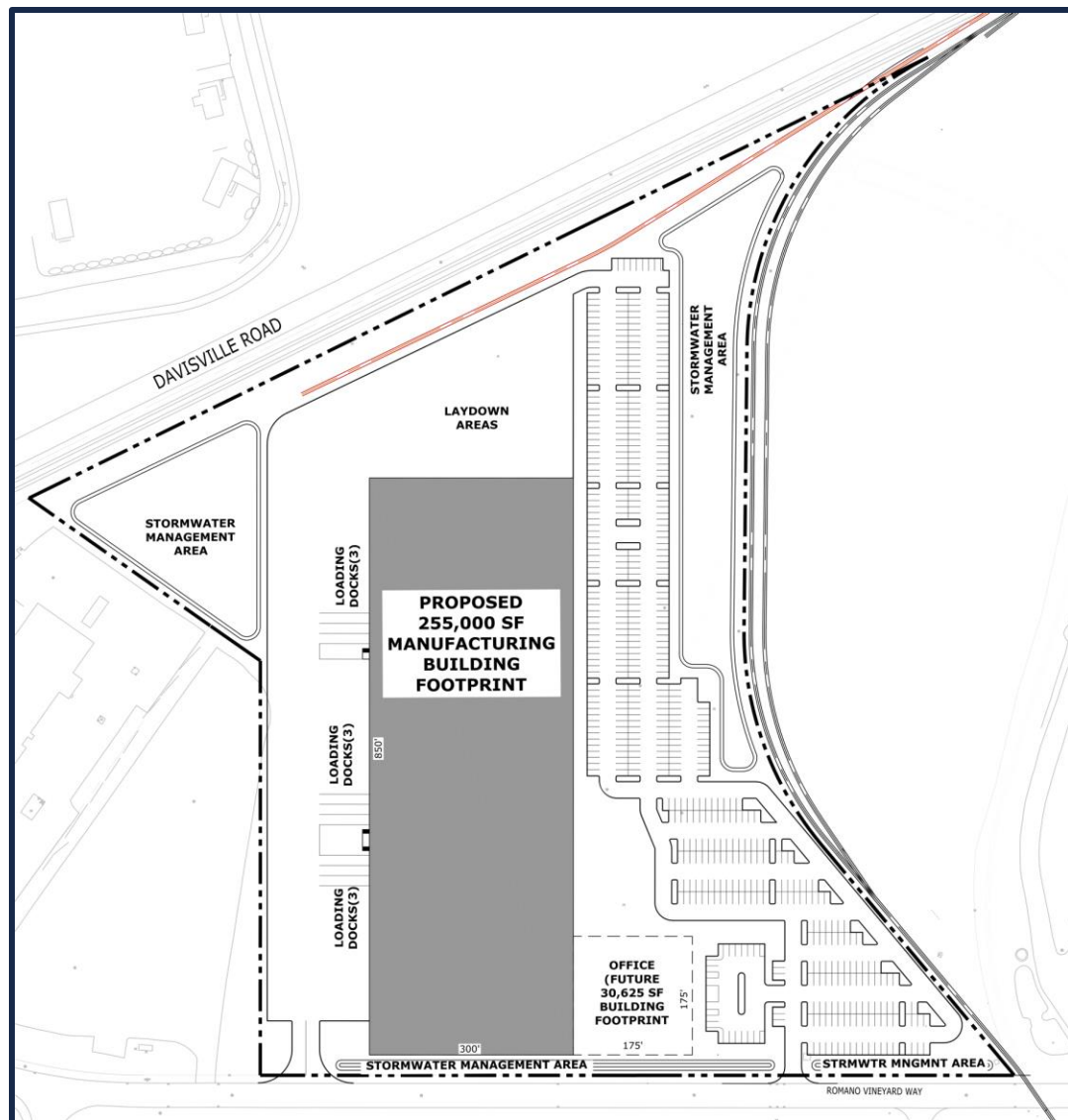
**Phase 1 - Today**  
Viceroy Prototyping

**Phase 2 - 2025+**  
Viceroy Production

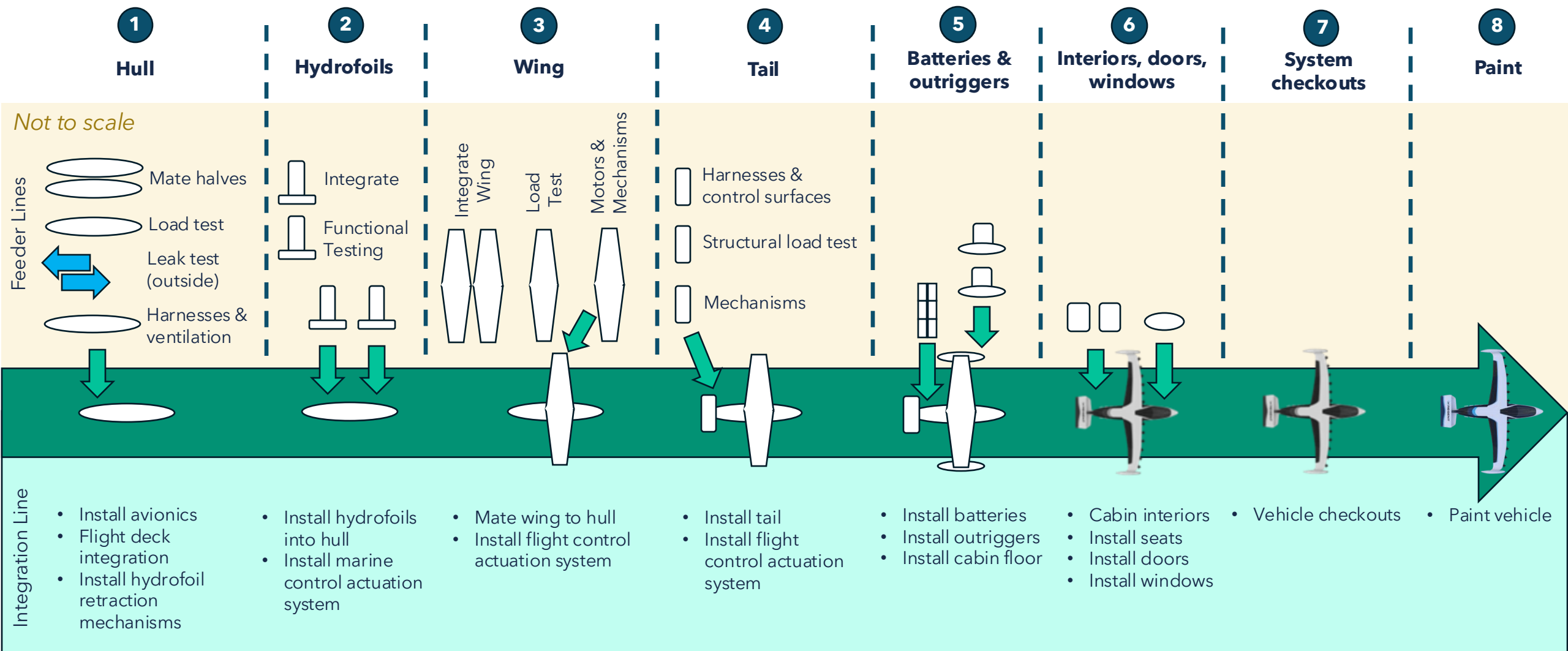
**Phase 3 - 2027+**  
Monarch Production



# 2025 Viceroy Manufacturing Site Layout



# Viceroy Integration Stations





# **REGENT**