

Tofino Aerospace:  
Addressing Fundamental Challenges;  
Creating Local Opportunities:

Lawrence Marazzi

[lawrence.marazzi@tofinoaerospace.com](mailto:lawrence.marazzi@tofinoaerospace.com)

# Tofino Aerospace: Addressing Fundamental Challenges; Creating Local Opportunities:

- Long Range  
Unpiloted Air Vehicle (UAV)  
Services: Patrol, Data-Collection,  
Conservation, Management,  
Emergency Response
- Technology Development: for  
Next Generation Low/Zero  
Emissions Aircraft



# A time of Critical Challenges in the Protection and Management of Natural Resources...

- Flora/Fauna/Environmental changes due to global warming and increasing 'Greenhouse Gas' emissions



# A time of Critical Challenges in the Protection and Management of Natural Resources...

- Increased food-chain vulnerability



# A time of Critical Challenges in the Protection and Management of Natural Resources...

- Illegal Unreported Unregulated Fishing



# A time of Critical Challenges in the Protection and Management of Natural Resources...

- Illegal waste dumping, tank flushing



# A time of Critical Challenges in the Protection and Management of Natural Resources...

- Increase in wild-fires

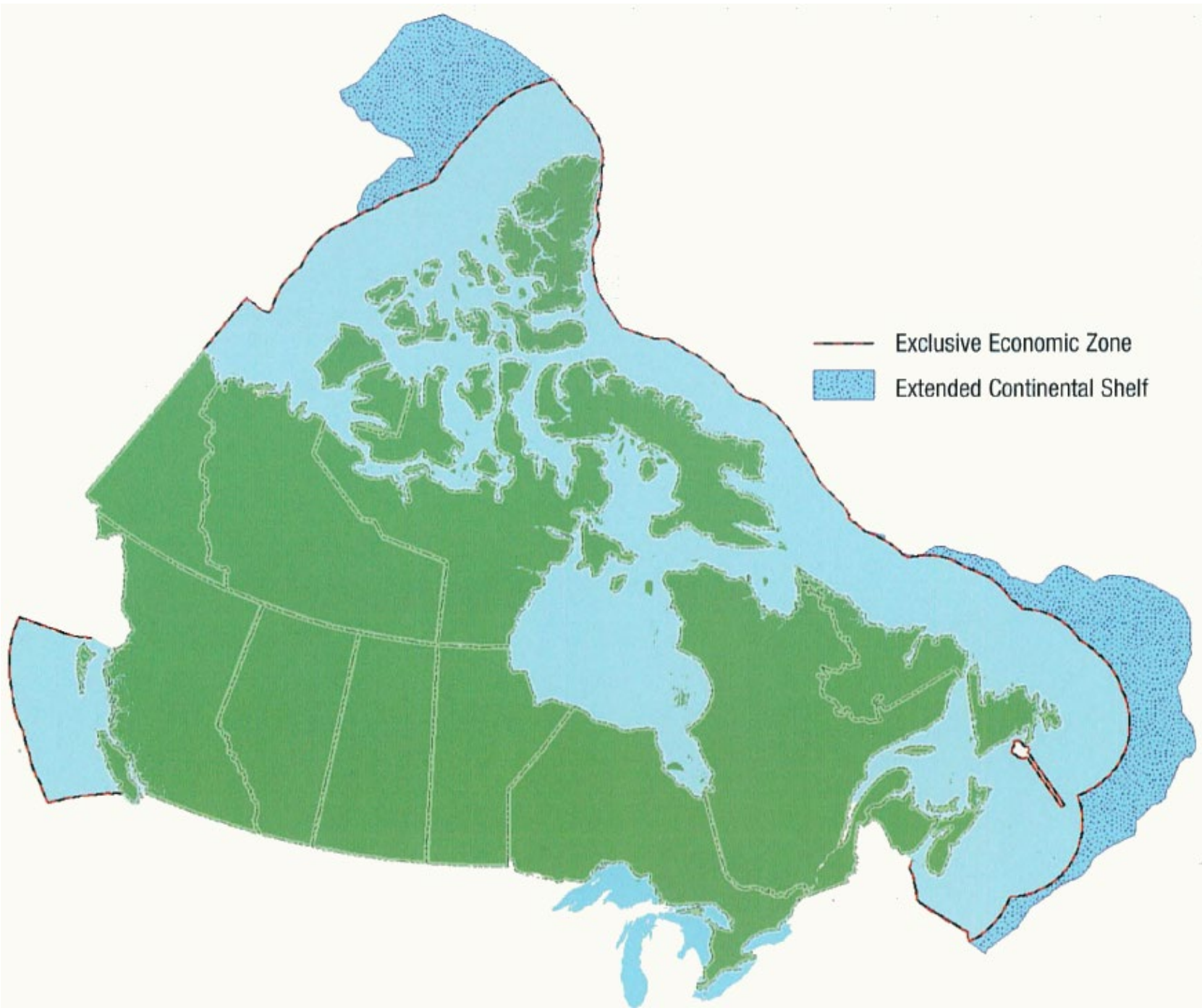


# A time of Critical Challenges in the Protection and Management of Natural Resources...

- Increasing risk from 'Bad Actors' in Pacific, Arctic, and Atlantic areas:







# Efforts to Address these Challenges have Grown but must Accelerate:

- Increasing fire fighting capability
  - But observation/Command/Control crewed helos/AC; can cost \$2-6k/hr to operate:



# Efforts to Address these Challenges have Grown but must Accelerate:

- Zero Emissions Aircraft technology in development
  - But no aircraft in regular service



# UAV's, & Zero Emission Aircraft Could Contribute Solutions to Both Sides of these Challenges

- UAV's enable the observation of vast areas at much lower cost
- Data collected will generate new conservation insights/conservation levers
- Patrol/protection can become real-time across West/North/East coasts.
- Development of Zero Emission Aircraft (ZEA) Technology combined with sustainable energy generation can help take CO2 out of aviation.

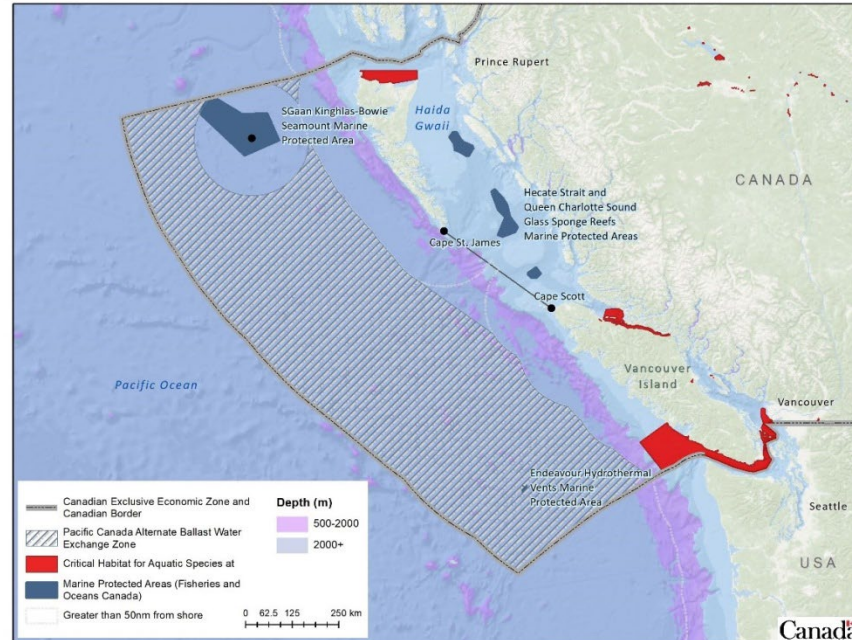
# Working with Communities, Governments, Academia – We will use long range & endurance UAV's to:

- Support activity identification of fishing boats/trawlers/other maritime-traffic; protecting fish-stocks, and the eco-system.



Working with Communities,  
Governments, Academia – We will use  
long range & endurance UAV's for:

- Multi-spectral observation/analysis; improving understanding; conservation of critical food-chain flora/fauna.



# Working with Communities, Governments, Academia – We will use long range & endurance UAV's to:

- Support early, persistent night/day observation of wild-fires accelerating their management and reducing their impact.



# With Technology partners our UAV's will also be used as test-platforms for Urban Air Transport & Zero-emission aircraft development.

- Leverage Saietta Electric Drive experience, technology – I founded it in 2008; now has 7 sites/factories in 3 countries, and over 250 staff.

**[www.saietta.com](http://www.saietta.com)**





With Technology partners our UAV's will also be used as test-platforms for Urban Air Transport & Zero-emission aircraft development.

- Multiple applications/opportunities:
  - Urban air-transport



With Technology partners our UAV's will also be used as test-platforms for Urban Air Transport & Zero-emission aircraft development.

- Multiple applications/opportunities:
  - Regional passenger aircraft



With Technology partners our UAV's will also be used as test-platforms for Urban Air Transport & Zero-emission aircraft development.

- Multiple applications/opportunities:
  - UAV's/drones.



**Thank You - Tofino Aerospace**