



Cleaning Up the Great Pacific Garbage Patch

Sponsor: American Bureau of Shipping / Austin Cwiklik

The Garbage Patch Kids:

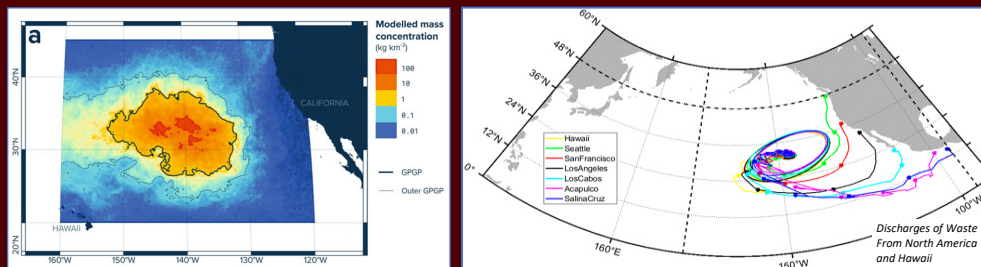
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SUMMARY

Develop an innovative solution to address ocean pollution, with an emphasis on the Great Pacific Garbage Patch (GPGP).

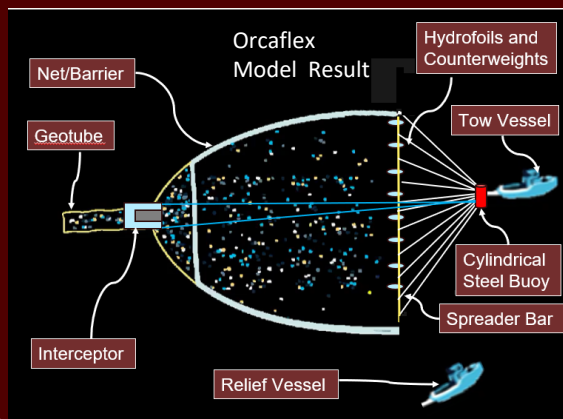
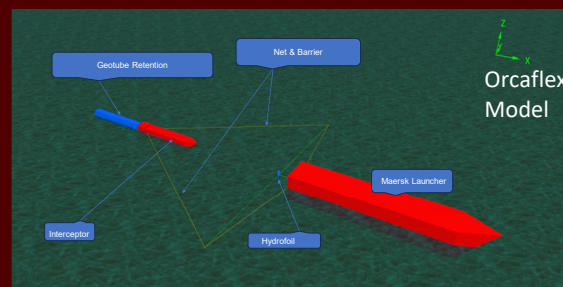
LOCATION



PROJECT REQUIREMENTS

- Understand how the Great Pacific Garbage Patch is formed
- Investigate current ocean technology and how it is being employed to solve the issue
- Identify weaknesses with current designs and propose solutions
 - Innovation and creativity highly encouraged
 - Non-mechanical and/or autonomous solutions recommended
 - Apply industry regulations and standards to design
 - Limit within plausibility and time/budget concerns

FINAL DESIGN: ATLAS



- Reduce to one tow vessel
- 1.1 km arc length net
- 880 m spreader bar
- 22 hydrofoils underneath spreader bar to decrease drag

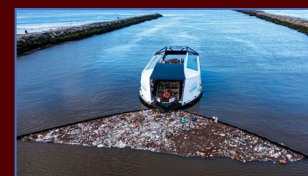


- Redesigned Collection and sorting
- Geotube technology to capture microplastics
- Steel buoy for easy attach/detach
- Additional system cameras

CURRENT GARBAGE CLEANUP TECHNOLOGY

Interceptor

- Currently 61 *Interceptor* models in operation
- Preventative measures placed at river mouths
- Guided barriers lead pollutants to conveyor belt
- The conveyor belt then directs the trash into one of their several floating dumpsters
- 50 cubic meter dumpsters



System 03

- 2.2km floating barrier pulled by two ships
- Two wings of net 4m deep
- 1.5 knot trash collection speed
- Marine Animal Safety Hatch

