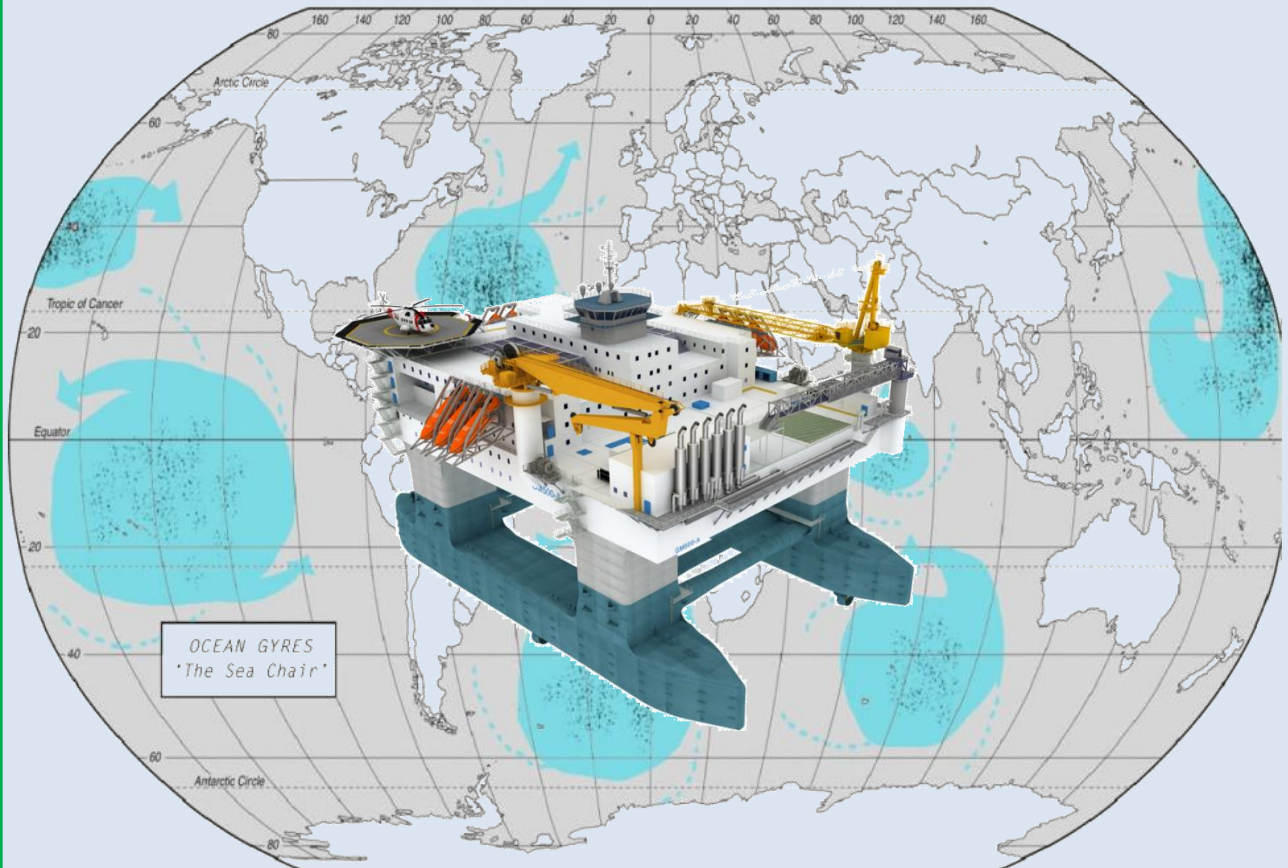


OCEAN HARVESTER

What if We Could Reduce The Ocean Environmental Pollution With Ocean Trash Recycling



**Would You Invest a Billion Dollars
to start solving the problem?**



PROJECT ARCHIMEDES LLC,
HUMANITARIAN & ENVIRONMENTAL SERVICES AND RESEARCH

OCEAN HARVESTER OFFSHORE PLATFORM

RETHINKING THE SOLUTION:

In applying the oil company's application and solutions for ocean energy exploration the engineering and science has come of age in the 21st century in both strength and operational endurance. Our intended application follows these time tested advances in ocean operations ,and departs the somewhat limited vessel capabilities of super ships, which are mobile but limited in production delivery capacities by being in all manner both a ship and platform. To undertake the task of clearing our oceans of decades of outdated dump regulations worldwide, our concepts and approach may provide solutions to our current floating trash and environmental hazards globally.

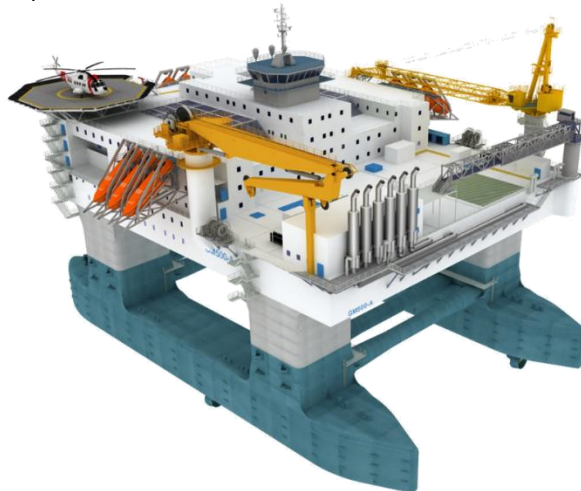


OUR APPLICATION:

The design and capability to operate in extreme open ocean environment which allow vessel mobility and capacity to recover and process ocean trash and provide onsite research and ocean environmental exploration in a singular platform for extended periods has lead our planning to the Semi-Submersible Platform.

This platform is designed primarily to operate in existing Ocean Trash Vortex Gyer locations 24/7 for the recovery and processing of ocean plastic trash fields. The removal of this contaminate and processing for mainland transport and re-processing into useful building applications will provide the core profit margins needed for successful operations, but may also be deployed for extended deep ocean scientific and exploration projects .

The secondary application addresses the need to expand the limited knowledge base for long term ocean effect and recovery from such waste which has long been restricted to brief exploratory and research projects, thus will now allow for the extended field scientific laboratory and research studies worldwide on the ocean environment, weather and field exploration platform for valued research to world wide scientific studies.



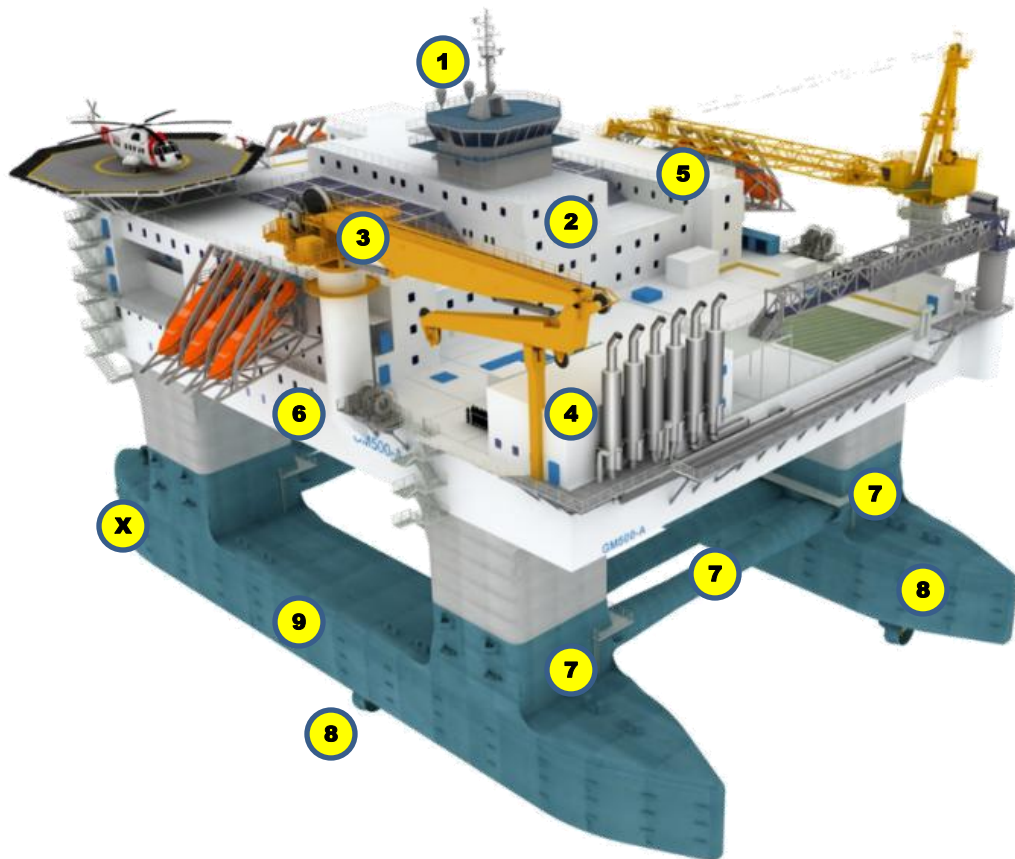
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THE PRINCIPAL PROCESS:

A self contained powered vessel which is a semi-submersible, processing factory and discharge control, allows the company to remain on station 24/7 and process into aggregate size plastic, metals and combined waste trash for offloading onto waiting bulk container ship/barges which in turn offload to numerous shoreline processing plants where the reformation process can be initiated for new and durable building materials worldwide. The available trash fields will provide product for 500 years +.

Illustrated here are the conceptual elements based on the model pictured. Final design and engineering will take approximately 24 months before actual platform construction begins, and will be delivered 24 Months later for service.



- | | | | |
|----------|---|----------|---------------------------------------|
| 1 | BRIDGE AND OPERATIONS CENTER | 6 | PROCESSING PLANT CENTER |
| 2 | CREW AND SCIENTIST LIVING QUARTERS | 7 | INTAKE MANIFOLDS RECOVERY |
| 3 | PROCESSOR DISCHARGE & BOOM | 8 | AZMITH POWER THRUST GENERATORS |
| 4 | PLATFORM POWER STATION | 9 | ADJUSTABLE SUBMERSION |
| 5 | SCIENCE LABS & RESEARCH TOWER | X | WATER JET PROPULSION SYSTEMS |

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GENERAL CONCEPT SPECIFICATIONS:

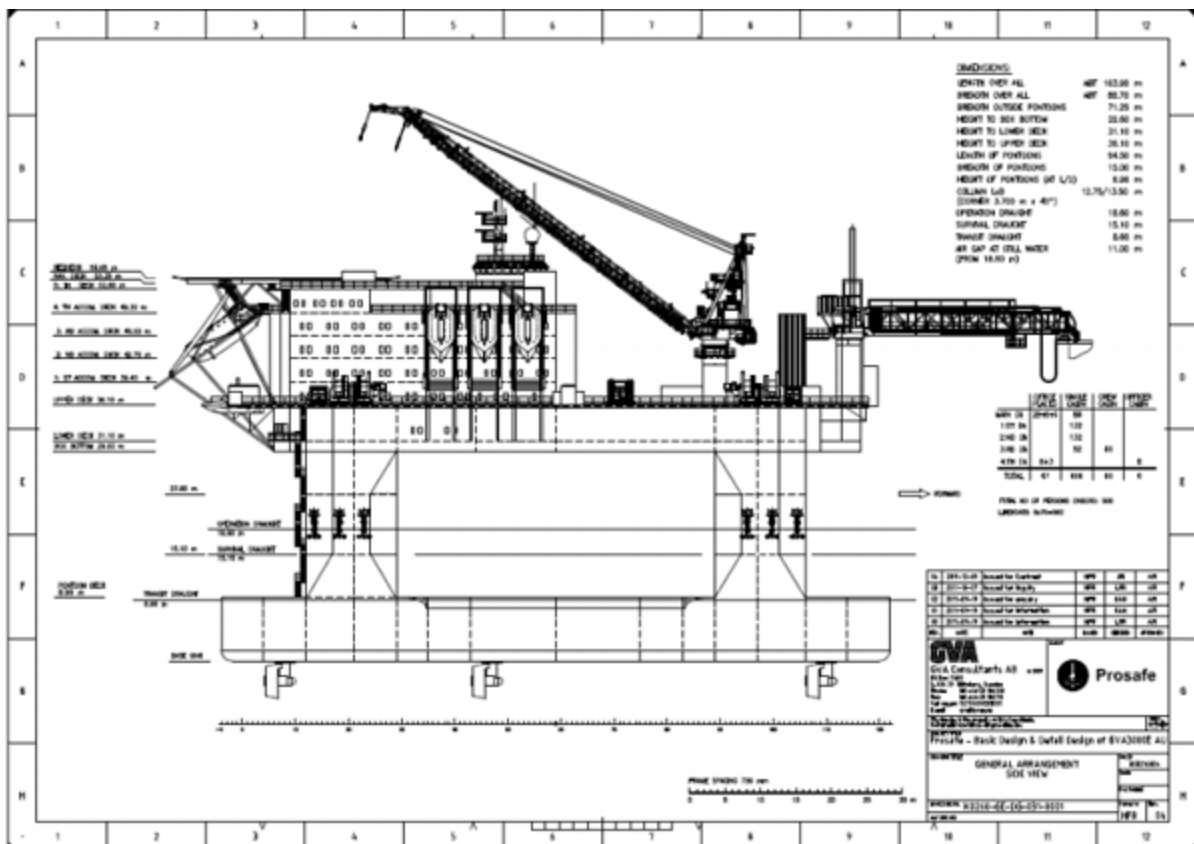


This new ultra-deepwater harsh-environment semi-submersible rig will be built for a water depth rating of 10,000 feet. It will be an N-Class compliant sixth generation rig capable of maintaining position dynamically in deepwater with thruster assisted mooring in shallow water in the North Sea , Barents Sea and Pacific open ocean environments. The rig is also engineered and climate configured to carry out year-round processing operations in such harsh areas. With offshore operations moving toward deeper waters and harsher environments, we are confident of leveraging on these emerging opportunities with our building of high-specification ultra-deepwater multi purpose rigs.



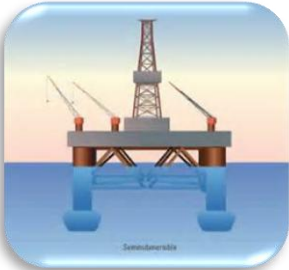
Length of 104.5 meters, width of 75 meters, depth of 46.85 meters, design draught of 9.5 – 17.75 meters, operation in water depth of 70-1750 meters, maximum wind speed of 51.5 M/second in survival conditions, and self powered for sustained operations of 10 kts.

SIMILAR PROFILE FOR ILLUSTRATION



OCEAN HARVESTER OFFSHORE PLATFORM TRASH PROCESSING

THE BOTTOMLINE COST



In estimating the cost of operations and initial investment cost, the figures shown here represent a general guideline based on research costing of oil producing platforms within final engineering parameters. It is estimated that there will be a total volume 9,125,000 tons of trash recovered annually based on 365 days and 24 hours operations.

Product will be dispersed to a minimum of 5 plants for product completion (all of which will be local government businesses in 3rd world countries) to assist in boosting their job markets and export capabilities.



Based on these estimate of recovery production, each plant shall receive 1,825,000 tons of raw materials. From the recycling process of 1 ton average yield will be \$200 retail product per ton or \$365 Million Dollars if full processing is completed.

INITIAL AND ANNUAL OPERATING COST ESTIMATES

| ITEM | COST | TERM | OPERATE | RETURN |
|--------------------|---------------|--------------|-----------------|--------------------|
| PLATFORM | \$500 Million | 48-60 Months | \$18.25 Million | 7 Years Start Ops |
| RESEARCH EQUIPMENT | \$250 Million | 24-36 Months | \$ 5,0 Million | 10 Years Start Ops |
| PROCESSOR PLANT | \$100 Million | 36-48 Months | \$11.0 Million | 7 Years Start Ops |
| CREW & OPERATORS | \$ 20 Million | NA | \$30.0 Million | Annual |
| SUPPORT BASE/SHIPS | \$ 5 Million | NA | \$40.0 Million | Annual |

REVENUE PRODUCTION RATE

| PRODUCT | VOLUMN | RATE |
|------------|-------------|--------------|
| Bulk Trash | 25,000 Tons | \$100 PT |
| Research | 12 Months | \$20 Million |

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| PRODUCT | VOLUMN | RATE |
|----------------|----------------|-----------|
| Cost To Finish | 1.8 Million BF | \$1.40 BF |
| Sale Price | 1.8 Million BF | \$2.50 BF |
| Profit Margin | 1.8 Million BF | \$.90 BF |

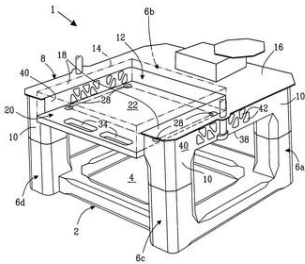
THE RETURN:

Based on these estimate of recovery production figures, each land based plant shall receive 1,825,000 tons of raw materials. From the recycling process of 1 ton a average yield will be \$200 retail product per ton or \$456 Million Dollars if full processing is completed.

Realistically the return on harvest along with production should yield the processing gross profit ratio of \$182.5 Million per plant based on the (5) plant design. The resulting gross to the company would then be \$912.5 Million per year under such model.

OCEAN HARVESTER OFFSHORE PLATFORM

SCIENCE IN MOTION:



Most all have been told that we know more about space and exploration of our universe, than we know about our own planets oceans. What most don't know is that aside of some governmental efforts the available research funds and available sea vessels to conduct such research our scientific efforts are limited for the ocean sciences. WE NEED TO KNOW – EXPLORE – AND UNDERSTAND OUR PLANET.

Our platform will provide that badly needed opportunity for scientist, researchers and environmentalist from the international specter to meet, collaborate and cooperate as never before, with extended "ON SITE" facilities not for weeks, but months.

The platform shall house many of the items shown here, plus accommodations for up to four (10 team) scientific projects at a time.

ONBOARD TOOLS FOR EXPLORATION



COMMERCIAL DIVERS



SCIENCE FIRST HAND OBSERVATION



OFFICE & CONFERENCE



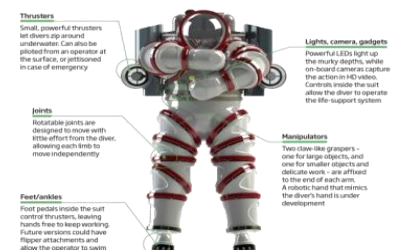
LABS

DEEPWATER EXPLORATION



Un
Stuck

NEXT GENERATION RESEARCH



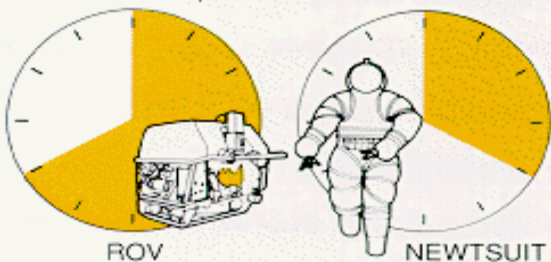
MASSIVE SCIENCE RESEARCH SAVINGS

IN WATER RESEARCH AT 90% LESS COST!

Can you imagine the grant and research savings of scientific and graduate studies which require on site observations in this harsh environment. Our concept is to provide this solution to remove a barrier which removes speculation and theory with real factual results. Our science community can now gain the valuable research results in real time.

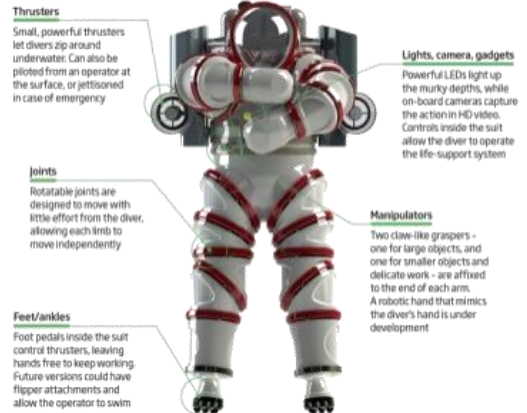
Manufactured by Ceanic Corporation

Task Time Comparison



Underwater Iron Man

Studded with cutting-edge gadgetry, the Exosuit will soon be rolling in the deep



| SATURATION DIVE | | HARD SUIT DIVE | |
|--|--------------|---|-------------|
| DESCRIPTION | COSTS | DESCRIPTION | COSTS |
| 2 sat divers @ \$1,000/day ea. | \$2,000/day | Crew of 4 (1 Supervisor, 1 Technician, 2 Operators) | \$3,937/day |
| 12 support crew/day shift \$500/day ea. | \$6,000/day | | |
| 10 support crew/night shift \$5,000/day | \$5,000/day | | |
| Dive support vessel for 10 tons of equipment | \$10,000/day | Dive support vessel for 2 tons of equipment | \$2,000/day |
| Consumables (Heliox, soda-sorb, etc.) | \$5,000/day | Consumables (Oxygen, soda-sorb, etc.) | \$750/day |
| Medical support | \$1,000/day | No medical support required | \$0 |
| Daily Cost | \$29,000 | Daily Cost | \$6,687 |
| Total Cost | \$275,500* | Total Cost | \$6,687** |

SATURATION NOTES:

24-hrs compression to 1,000', 12-hrs work, 8 days decompression

TOTAL TIME 9.5 days
Deck space required 4,000 sq. ft

Mobilization costs can range from \$50,000 to \$150,000 and take anywhere from 3-14 days.

HARD SUIT NOTES:

No compression/decompression

TOTAL TIME 12 hrs.
Deck space required 200 sq. ft.

The Hardsuit can be mobilized in HOURS and is readily transported by helicopter or aircraft

NOTABLE ADVANTAGES OVER CONVENTIONAL APPLICATIONS:

- The system can be operated at a fraction of the cost of conventional deep diving systems. Crew size is reduced from 24 personnel to 4, expensive mixed gases are not required, and operational deck space is reduced from the traditional 4000 square feet to 200 square feet.
- All medical and physiological problems associated with compression and decompression are completely eliminated, which is reflected in operational insurance costs.
- The complete Hardsuit ADS is helicopter transportable and can be operational within hours.
- The Hardsuit ADS can be operated tethered or free, as the life support is a closed circuit and completely self contained
- In both cases the operator is protected from the pressures of great depth but the Hardsuit operator, who is at the problem site, can make decisions leading to a faster project completion. Completion time may be half the time of an ROV.

DISCOVERY FOR SCIENCE & REAL WORLD EXPLORATION

DEEP WATER INVESTIGATION: “Aquanauts of the Oceans”

On July 20, 1965 they made their first 6,000-foot dive for the Navy to obtain certification.

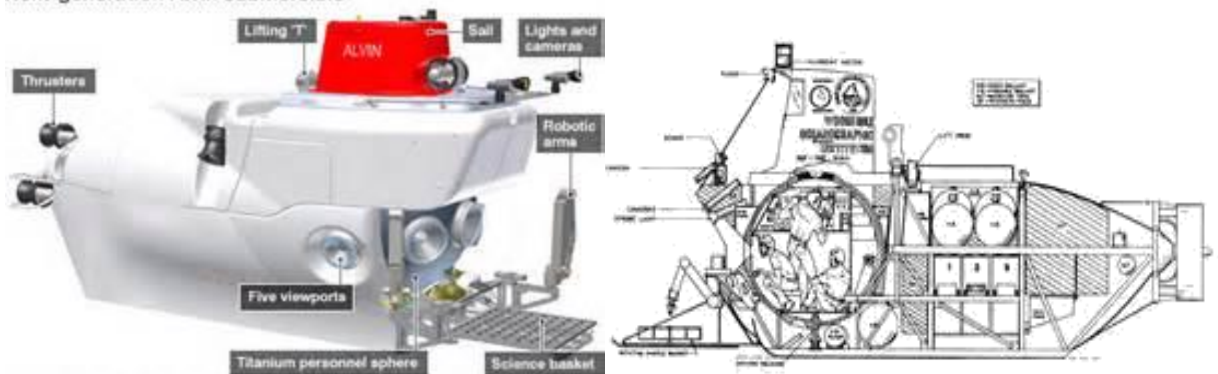
Alvin was designed as a replacement for bathyscaphes and other less maneuverable oceanographic vehicles. Its nimble design was made possible in part by the development of syntactic foam, which is buoyant and yet strong enough to serve as a structural material at great depths.

The vessel weighs 17 tons. It allows two scientists and one pilot to dive for up to nine hours at 4,500 meters (14,800 ft). The submersible features two robotic arms and can be fitted with mission-specific sampling and experimental gear. The plug hatch of the vessel is 0.48 meters (1 ft 7 in) in diameter and slightly thicker than the 2 inches (51 mm) thick titanium sphere pressure hull; it is held in place by the pressure of the water above it.

Until recently, only government agencies with big budget funding could afford to breach these dark and unknown areas. Today however, we can provide the scientific community the opportunity to vastly expand their understanding of our planets eco system and base their research on facts not conjecture. General upgrade of support systems, instruments and materials, will allow Alvin to reach 98% of the ocean floor.

National Deep Submergence Facility (NDSF)

Next-generation Alvin submersible



Source: Woods Hole Oceanographic Institution

**NOW SCIENTIFIC KNOWLEDGE IS NO
LONGER FOR THE ELITE, BUT FOR THE
MASSES, HARVESTER HAS ARRIVED**

PROJECT SUMMARY

It was once said that the future was for the visionaries, and in today's society and ever changing events it seems the next step to knowledge and action is hampered by the almighty dollar. This project although requiring a solid commitment today, has the results for decades and beyond.

Project Archimedes is about application to known science – and this application is indeed following that principal. We argue, speculate and opionate every advancement to oblivion, yet the final truth lies in the response and change.

Only Investors and dedicated personnel from every walk of life provide the answers if we will just see the potential. Our generations to come can only benefit from our success – not our indifference, so see the potential and MAKE THE DIFFERENCE

Through the Gyre

By now, most of us are aware that there is a large patch of floating plastic in the middle of the Pacific Ocean. What you may not know is that it's not made up of plastic bags and empty bottles. It's made up of billions of tiny pieces of plastic, and it's basically invisible unless you're floating in it. While this might sound better, it's actually much worse for the environment—and for you.

Location
The garbage patch is located in the North Pacific Gyre, one of five major swirling vortices of currents in the world's oceans.



Size
The borders of the plastic garbage patch are difficult to determine because much of the plastic is in pieces too small to be seen by satellites or planes.

Estimates of the size range from about 250,000 square miles (an area roughly the size of Texas) to 6 million square miles, which would mean that the garbage patch covers about 10 percent of the entire Pacific Ocean.



Formation

Of the 200 billion pounds of plastic people use each year, about 10 percent ends up in the ocean. Seventy percent of that eventually sinks, but the other 30 percent is carried on the surface by ocean currents. When plastic ends up in the waters of the Pacific, much of it is swept up into currents that lead to the Pacific Gyre. Garbage from the east coast of Asia takes roughly a year to reach it; garbage from the west coast of North America takes five years.



Contents

Ninety percent of the trash floating in the world's oceans is plastic. In every square mile of ocean, according to some estimates, floats nearly 50,000 pieces of plastic. In the Pacific Gyre, most of that plastic comes from four sources:

- Low-density polyethylene (plastic bags)
- Polypropylene (bottle caps)
- Polyethylene terephthalate (plastic water bottles)
- Expanded styrene (Styrofoam)



Photodegradation

The sun breaks down plastic into smaller and smaller pieces, but can never break it down entirely. Unlike organic materials, which eventually biodegrade, the plastic breaks into ever smaller pieces while still remaining a polymer.

As it breaks apart, the plastic ultimately becomes small enough to be ingested by aquatic organisms which reside near the ocean's surface. Plastic waste enters the food chain.

Plastic Pieces



Plastic Chemicals

Plastics in the water absorb floating chemicals, which are attracted to the plastics' oil base. Many of these chemicals are known as persistent organic pollutants, which never leave the environment or break down. These chemicals include:

- Aldrin (insecticide), Chlordane (pesticide), Dieldrin (insecticide), DDT (pesticide), Dioxins (toxic chemicals that are an industrial waste product of actions like metal smelting and paper bleaching), Endrin (insecticide), Furans (toxic chemicals used as solvents), Heptachlor (insecticide), Hexachlorobenzene (fungicide), Mirex (insecticide), Polychlorinated Biphenyls (or PCBs, coolant and lubricant), Toxaphene (insecticide)



Impact

Ocean life can mistake the small pieces of floating plastic for zooplankton. When they eat it, they also ingest the chemicals that the plastic has absorbed. These organisms and small fish are consumed by larger fish, which also absorb the chemicals, and which are then eaten by people. Many of these poisonous plastics also end up in the stomachs of marine birds and animals.

LET'S FIX THIS DEBATE
We Already Have One Volunteer

