Pathfinder AVHRR SST and Coast Guard MGS

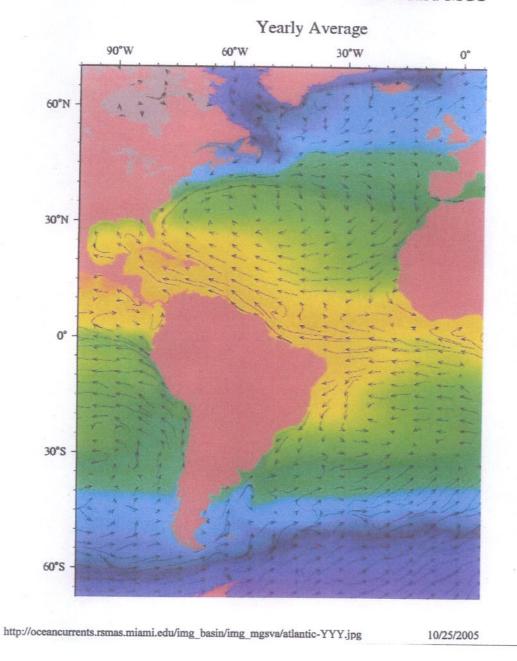


Figure 13
Typical Currents and Water Temperature Chart for the Region.

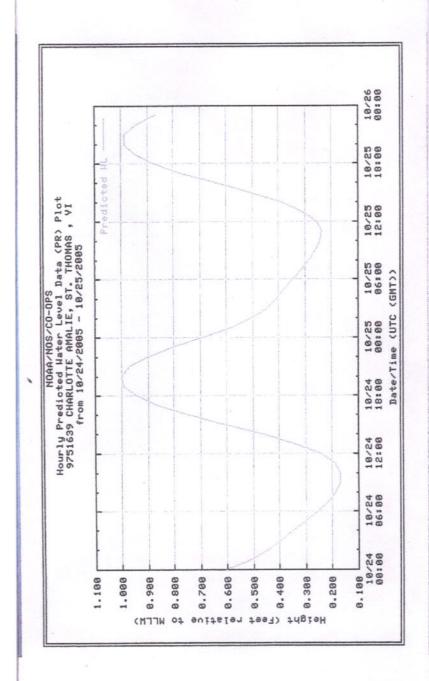


Figure 14
Typical Daily Tide Chart.

7.0 Impacts on the Human Environment.

7.01 Land and Water Use Plans

The proposed project is offshore and submerged. There are no significant natural areas, or areas of particular concern within 200' of the proposed project site. There are no future development plans.

7.02 Visual Impacts

The proposed project results will be completely submerged, the aesthetic beauty and visual compatibility with the surroundings can only be appreciated from beneath the surface.

7.03 Impacts on Public Services

a. Water

No fresh water on site is required for this project.

b. Sewage Treatment and Disposal

No sewage will be generated and there will be no shoreside wastewater created at these sites.

c. Solid Waste Disposal

Solid wastes will be minimal, limited to mostly personal trash by volunteers at the project sites. (i.e. food wrappers, beverage containers, etc.) Compactors, Separators, Incinerators, and private haulers will not be necessary.

d. Roads, Traffic and Parking

Access is as follows:

To Brewer's/UVI site, access from Brewer's Beach

To Coki Pt. site, access from Coki Beach

To Cloudbreak/Inner Brass site, Access Hull Bay Beach

At all sites: Reef Ball is brought to beach in light duty truck, or "pickup" from Dependable Maritime yard. Using manpower, reef ball is unloaded and rolled down the beach towards awaiting boat. Reef ball is then "floated" and positioned over its awaiting spot. Divers then slowly release the air and guide it down to where it is supposed to be. Landed in the wrong spot? No problem, reef ball can be reinflated with the diver's apparatus, and easily moved to its correct location.

We do not anticipate increased traffic loads, access or circulation problems, or existing road hazards. Highway safety will not be impaired. No parking permits required.

6.07 Terrestrial Resources.

No flora or fauna is in danger during construction or deployment of the reef balls.

6.08 Wetlands

All the reef ball habitat sites are well clear and not in proximity to terrestrial wetlands, intertidal marine areas, salt ponds, marshes, lagoons, tidal flats, etc.

6.09 Rare and Endangered Species

There is no potential project impact on any endangered species.

6.10 Air quality

The cement mixer for the concrete is electric, so other than the engines in our trucks, there is no equipment to effect air quality.

7.06 Impacts on Historical and Archeological Resources

The proposed project will not have any impact on historical and archeological resources.

7.07 Recreational Use

Actual deployment of the reef balls may interrupt a few minutes of swimming at the most extreme, but who wouldn't be interested in such an activity one morning at the beach? Coki Pt. and Brewer's Bay sites will be recreationally enhanced, due to the fact that there is an existing water enthusiast population already. The Cloudbreak location is more indirect. The Eternal Reef Society Founder stated an average of 10 family members per memorial reef ball will attend deployment and some will return on a future dive or "drive over" During the time of their visit, the Virgin Islands offers numerous other recreational activities.

7.08 Waste Disposals

The proposed project will not involve the use of chemicals, oils, or hazardous materials. There will be no thermal or saline effluents. There is no dredging or need for sewage disposal.

7.09 Accidental Spills

This project does not require the handling of oil or other hazardous materials.

7.10 Potential Adverse Effects Which Cannot Be Avoided

Possible movement of reef balls during storms; In world wide study of over 250,000 reef balls deployed, none of the Army Corps of Engineers approved reef balls had moved.

7.0 continued:

7.03 Impacts on Public Services

Electricity e.

Use of electricity is minimal, when it is needed at project site, a small portable generator (5KW or less) is sufficient. Therefore no impact on local resources is anticipated.

7.04 **Social Impacts**

When permit is granted and the aforementioned objectives are met, then the following goals can be realized:

- a. A long-term social, economic, and quality of life values of a reef ball habitat benefit the local economies of the Virgin Islands.
- b. Use of a reef ball habitat as a component of fisheries management.
- c. Identify, procure and maximize new and existing sources of funding for reef ball habitats.
- d. Improve intergovernmental coordination and public / private cooperation in reef ball habitat development.
- Foster public and private sector marine ecosystem stewardship and comprehension of reef ball affairs.

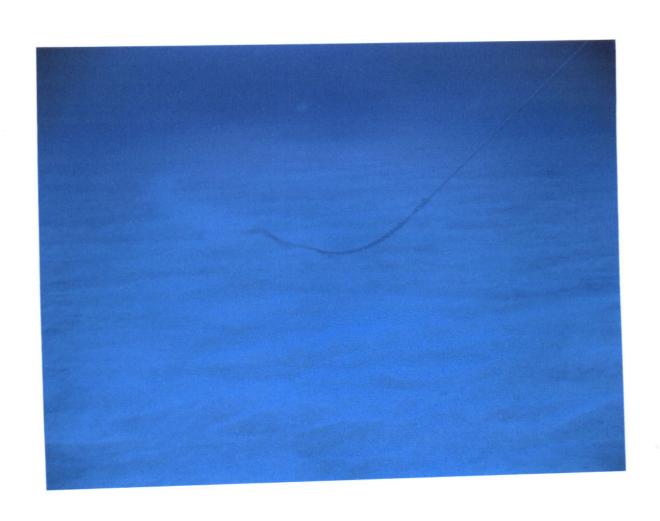
7.05 **Economic Impacts**

Short term impacts: Creating local employment, thereby providing income tax revenue, gross receipt taxes, and workman's compensation.

Long term impacts: While Dependable Maritime currently employs 9 persons, it coincides with the Cruise Ship Season, as many businesses do in the Virgin Islands.

At the start of the proposed project, we anticipate 3 divers, 4 boat crew, 3 construction workers, and 2 technicians. At individual deployment stages, volunteers will be allowed to contribute. This covers aspects of all 3 habitat sites, construction, deployment, and monitoring. This will create more year-round employment for our staff, and allow Dependable Maritime to hire additional help.

Starting base pay at Dependable Maritime is \$15 per hour.



Cloudbreak / Inner Brass

Underwater photo of site centerpoint facing east.

8.0 Mitigation Plans

Due to the scope and nature of the project work, any adverse impact, be it environmental or other, will be unsubstantial and require no mitigation other than common sense and respect for environment.

9.0 Alternatives to proposed Action

9.01 Granting and/or Denying Permit for 1 or 2 of the 3 Sites

The 3 sites are separated by geography but were chosen for their potential contribution to that unique location, completing the triangle of Education, Tourism, and Revenue. Dependable Maritime realizes the 3 separate habitats work as one system economically, Volunteers and donations can not be expected to fund the project in a time constraint. This alternative seems nonviable.

9.02 No Action Alternative

A no action alternative would result in the continuance of apathy and ignorance toward our underwater organisms and the environment they live in. Indirectly, the loss of jobs and tax revenue to the Virgin Islands Government, a free study reef, a free tourist attraction, the first live memorial reef in the Virgin Islands, and a living thing to leave our children, that will always give back.

More indirectly, it would close the door on a technology that the rest of the world is discovering to be beneficial in improving their fisheries, commerce, beach restoration, and underwater ecological development.

10.0 Relationship Between Short Term and Long Term Uses of Man's Environment

The use of 3 separate submerged areas of sand bottom are intended to house the reef ball habitat indefinitely to become a living multi-species home. In the advent of a decision to remove or relocate, the deployment procedure is easily reversed.

11.0 References

This Environmental Assessment Report was prepared by:

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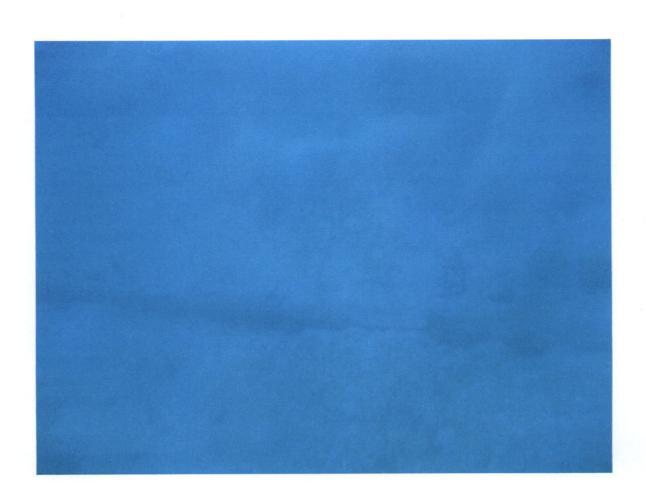
Edward Pierce

St. Thomas, USVI, 00802

St. Thomas, USVI. 00802

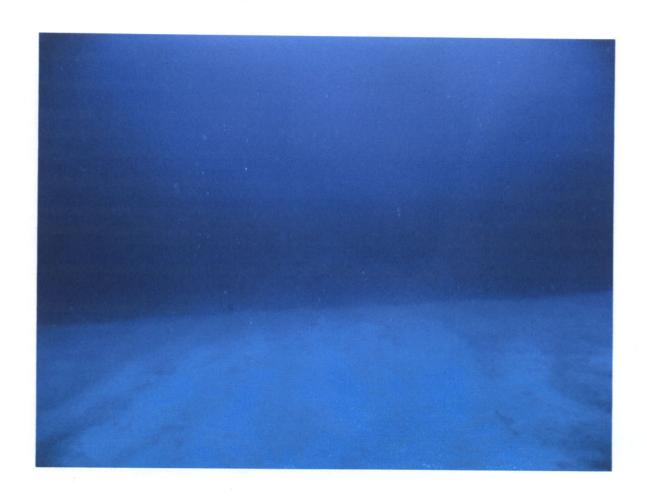
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Brewer's Bay / UVI

Some of the debris typical in this area. (near centerpoint location)



Coki Point

Site Centerpoint facing east.