



Jean-Michel Cousteau and soft coral.  
©Carrie Vonderhaar, Ocean Futures Society

## Jean-Michel Cousteau Discusses the State of the World's Oceans & What Needs to Be Done to Protect Them



Sharing the spotlight in this issue of *Currents* is Jean-Michel Cousteau, founder of the Ocean Futures Society. On 19 March 2011, Kenneth Hess from the public affairs staff at the Chief of Naval Operations Energy and Environmental Readiness Division (N45) and Bruce McCaffrey, managing editor of *Currents* magazine, conducted this interview as one in a series of interviews with representatives from environmental non-governmental organizations (NGO). Mr. Cousteau spoke about his work, the state of the oceans, and what needs to be done to protect them.

**CURRENTS:** Many of our readers are likely familiar with your family name and some of the work that you and your father have done to explore the oceans, and educate people about the importance of protecting them. What drives you to do this kind of work?

I had the privilege of being tossed overboard when I was seven.



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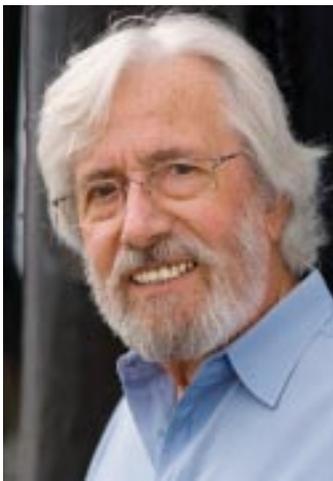
**JEAN-MICHEL COUSTEAU:**

Well, first of all, I had the privilege of being tossed overboard with a tank on my back when I was seven years old. That's when my exploration of the ocean began. It literally became something deep inside me that I only realized years later. It had something to do with the quality of life, and that I saw fewer and fewer fish and more and more garbage in the ocean. That is what has made me want to continue to support the philosophy of my father through our efforts at the Ocean Futures Society.

**CURRENTS:** Who tossed you overboard?

**COUSTEAU:** My father did. He did that to my late brother too who was only four and a half at the time. My mother was there and diving became a family affair. Some families go up in the mountains to play in the snow, others go diving. In those days, we were probably the only kids that had this opportunity. We didn't know at the time, but we were very privileged.

**CURRENTS:** In this country, we would call that "sink or swim."



Jean-Michel Cousteau.

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## The Basics about Ocean Futures Society

**FOUNDED IN 1999** by Jean-Michel Cousteau, the official mission of the Ocean Futures Society is “to explore our global



ocean, inspiring and educating people throughout the world to act responsibly for its protection, documenting the critical

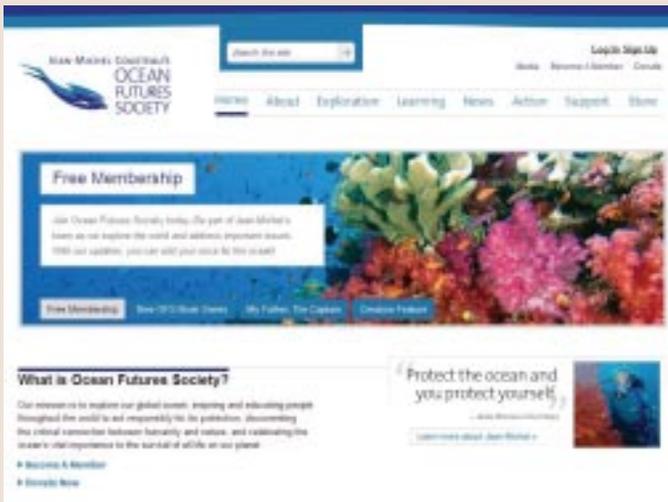
connection between humanity and nature, and celebrating the ocean's vital importance to the survival of all life on our planet.”

Some of the issues that the Ocean Futures Society has been focusing on recently include:

- Toxic flame retardants in the ocean
- Alternatives to offshore drilling
- The health and protection of marine mammals
- Sustainable fisheries

The Ocean Future Society web site includes links to important environmental news stories, information about the Society's current or upcoming expeditions, and a Kids' Cove, where children can view videos of marine and freshwater animals and even learn the “real story” behind cartoon hero SpongeBob Squarepants.

Visit [www.oceanfutures.org](http://www.oceanfutures.org) to learn more.



**COUSTEAU:** Well, at seven years of age along the shoreline in the south of France, we were in the water all the time, so we were not going to sink. But as a scuba diver, you have to sink. So maybe it's the other way around. Maybe it's “swim and sink.”

**CURRENTS:** Can you give us some insights into your education?



**COUSTEAU:** I went through a traditional school program in France until the Calypso appeared in our family. My mother was more a sailor than my dad and she moved aboard the ship first. It became her home. She spent more time on the ship than my father, my brother and I combined. As a result, my brother and I were sent to a boarding school in Normandy for five years. During the holidays and vacations, we would join the ship wherever she was—another very privileged situation, particularly in those days when transportation was not as easy as it is today. My brother and I would either leave early or come back to school late. Our teachers called us the “little island birds” because we were not respecting the school schedule like everyone else did. We spent three or four months a year on the ship.

At some point, my dad decided he wanted to live on the water. He co-designed a submersible diving saucer which I believe was the first one propelled by water jets. He thought it was great to be inside a pressurized vessel, but he liked to feel, touch and sense things. So that's when he decided to

create the first underwater habitat, which was called Continental Shelf-One. I was in high school at the time and thought, “Humans are going to live underwater. So I’m going to be the first architect to build cities underwater.” That was my obsession when I was 17 years old. When I finished high school, my dad said, “Yeah, why not?” So I looked for a school where I could learn marine architecture but found nothing. In fact, there are no marine architecture programs still today. So ultimately, I decided to enroll in a traditional architecture program in Paris. I’m a licensed architect in the European Union today. Then I worked at a shipyard. I felt that with these two disciplines—naval architecture and traditional architecture—I could be an expert in marine architecture. But I’m still waiting for my first

client.

I still use my education today whenever we make a film. Putting a film together is like designing a hospital, school or somebody’s home. You have to understand where you want to go. You have bits and pieces, not necessarily in the right order, and you have to make it happen. That is what has led me to communicate with the public in the best possible way. We are visual creatures.

**CURRENTS:** You obviously feel that technology can better help us understand the ocean environment. Do you have other examples of that?

**COUSTEAU:** I know that today we’re living in what I call the communication revolution. Every human being can be in touch with every other human being—whether rich or poor. I’ve been in places where you have one computer and 100 people looking at it—asking questions. When someone gets hurt on the other side of the planet, we know about it instantly. What’s happening in the Middle East, what’s happening

Whether you live on the ocean or on top of a mountain,  
we are all connected to the same water system.



Elephant seal giving birth.

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in Japan—we all know about it. That was not the case when I was a kid. Today we have opportunities to communicate with other people on the planet that we never had before. And we either misuse that opportunity or use it properly. When we do use it responsibly, it allows us to communicate with anyone on the planet—information that can help people improve their standard of living and better understand and respect our life support system—the oceans. Whether you live on the ocean or on top of a mountain, we are all connected to the same water system. If tomorrow you go skiing, you are skiing on the ocean. When you take a drink of water, you're drinking the ocean.

The oceans are our life support system. People didn't make those connections. But more and more, thanks to the communication technology that's available today, we can make people who have never seen the

Get them out there and they'll understand that our lakes and rivers are the roots of the ocean.

ocean understand how connected they are to it. That's what we do.

**CURRENTS:** What is the purpose of the Ocean Futures Society?

**COUSTEAU:** Well, the purpose of the Ocean Futures Society is to communicate. One way we communicate is through the production of television or other programs. The second way is through the educational system—go into the schools or get the kids out of the schools and get them wet. We do this so that they understand how connected they are to our lakes, rivers and oceans. The third way we communicate is via diplomacy—communicating with decision makers and providing them with the information that will help them make better decisions in either the business world or political arena—regardless of who is in place at the time. And that's why democracy and freedom is critical—so that information can be passed on. And I'm happy to say that today we're seeing a lot of that taking place.

**CURRENTS:** Talk about some of the specific challenges that you and your organization have been focusing on.

**COUSTEAU:** The first challenge is that the name Cousteau makes people think that we are rich. We are not a wealthy organization and are constantly struggling to meet our financial needs. There's a lot more we can do—but it's all dependent on having enough financial resources in place.

The other challenge we face is making sure that the educational system doesn't keep young people in the classroom. Kids are kept in the schools for all kinds of reasons—liability, financial and so on. Those kids really need to get out to feel,



sense and touch the real world. So when they go back to their classrooms, they'll understand what it's all about.

I used to take kids to Papua New Guinea. I couldn't do that today. We need to get kids out into the field. And all decision makers need to support that. The teachers are not against it, but they're confined to their classrooms. If we're going to do a good job of protecting the planet, we need for all current and future decision makers to understand that we depend upon nature for the quality of our lives.

**CURRENTS:** You seem to be suggesting that there needs to be a culture change of sorts so that our leaders understand that so much of education is outside the confines of a traditional classroom.

**COUSTEAU:** I don't think it's a cultural issue. I think we've been captivated or cornered by the system. And

## The *Ambassadors of the Environment* Program

**ONE OF THE** Ocean Futures Society's most important ongoing programs is *Ambassadors of the Environment* (AOTE), an educational program dedicated to engaging people of all ages with their natural environment.

The goal of AOTE is to "extract and distill lessons from nature and culture, using them to explore alternatives for a sustainable future and empowering participants to live more gently on our planet as *Ambassadors of the Environment*."

AOTE holds programs all over the world for school groups, families and divers. In addition to having fun in the water, participants learn the basic principles of ecology, energy, waste, biodiversity and more. The program also fosters confidence and creativity in its students

through team building and challenge activities such as rock climbing and high ropes courses.

For more information on AOTE, visit [www.oceanfutures.org](http://www.oceanfutures.org) and click on "Learning."

the system can change. We have a program called Ambassadors of the Environment, where we have kids go out into the field with their teachers to feel, sense and touch. Get them out there and they'll understand that our lakes and rivers are the roots of the ocean. And that water comes from the ocean. It's all one water system—a pretty basic concept.

We have had a program on Catalina Island for many years now. To see a young boy or a young girl from downtown Los Angeles who lives 15 or 20 miles away from the shore see the ocean for the first time is pretty amazing. We need to be able to take those kids out of school, bring them to the island, and within three to five days, teach them how to swim and

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An AOTE participant snorkels in kelp off the Channel Islands.

©Tom Ordway, Ocean Futures Society

JEAN-MICHEL COUSTEAU'S  
OCEAN  
FUTURES  
SOCIETY



Céline Cousteau and Dr. Richard Murphy  
snorkel with AOTE participants in American Samoa.  
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[www.oceanfutures.org](http://www.oceanfutures.org)

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snorkel. In the evening, they can go and see the lobsters crawling on the ocean floor and watch sharks sleeping. When we send that young boy or young girl back to his downtown Los Angeles school, he will talk to his friends, his neighbors and his family. He's a different person as a result.

There are a lot of people who still do not believe that climate change is an issue. They're wrong.

These kids will become the decision makers of the future.

**CURRENTS:** Can you talk about some of the other projects you're working on?

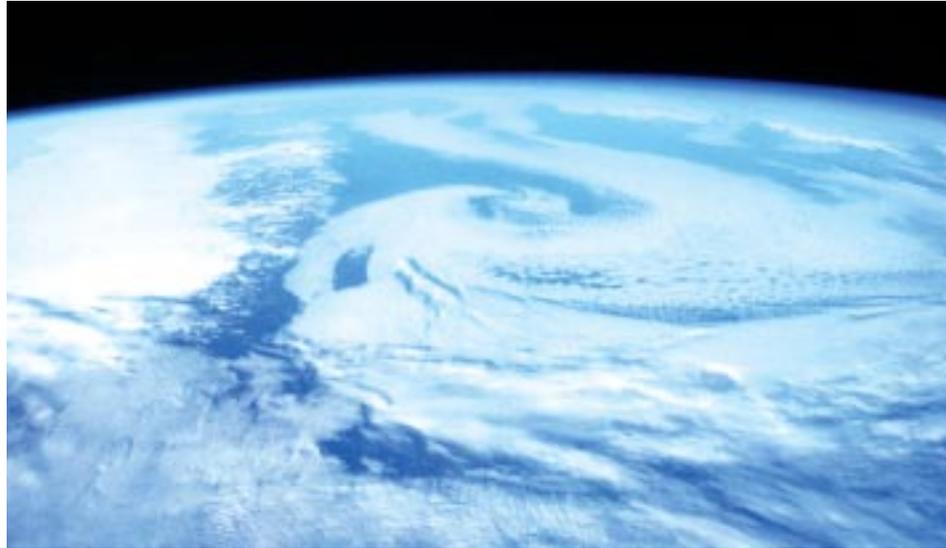
**COUSTEAU:** We took it upon ourselves, days after the oil rig explosion in the Gulf of Mexico to go there and spend almost two months in the region. I was in Prince William Sound 22 years ago. I know the Gulf is different, but the quantity of oil there is much, much larger. And the spill has not just impacted marine life but tens of thousands of people who have lost their jobs, lost their fishing boats, closed down their businesses and so on. These people have been profoundly affected by this catastrophe.

And nature will be punished for many, many years. We have learned from the local scientists that, in a typical year, three or four dolphins die in the area. This year, over 30 dolphins died—six to eight months after the spill. We don't know what else is happening there. We don't know what happened to the plankton. We don't know what happened to the shrimp. Are they going to be able to reproduce? We don't know what happened to the oysters, and the turtles that come and lay their eggs on the coastline. There are some very dramatic stories that we need to keep an eye on. To say it's over is a lie. It's not over. It's going to go on for decades.

We can do a better job of preventing these types of accidents. But when they do happen, we need to be prepared to face the consequences. In this case, we were not prepared. We took some shortcuts and were not prepared

when things went wrong.

Climate change is another major issue. There are a lot of people, including decision makers, who still do not believe



that climate change is an issue. They're wrong. And it's not just me saying this—it's the scientific community. We are guilty for speeding up the pace of climate change.

We're going to pay the price for climate change. Hundreds of millions of people are going to have to move. Where's the infrastructure to support them? These are real issues that need to be addressed.

Because ocean currents are below the surface of the water and are therefore not visible to most observers, we don't care about them. But currents are the bloodstream of the ocean. Where are all those chemicals going when they flow into the Missouri, or the Mississippi, to the Gulf and the Caribbean into the Gulf Stream—all the way to the northern Atlantic and Europe? Because we don't see them, we don't talk about them. It's another critical issue we need to face.

**CURRENTS:** It's a real challenge getting people to pay attention to things that are not visible to them. It's really hard to keep those less visible things on the public agenda—they are not like an explosion at a nuclear plant or a river catching fire.

**COUSTEAU:** Well, you're right. At the same time, when you have a release of radioactive material, you don't see it, but we manage over time to scare people, particularly in Japan. There are other ways to make people concerned

about toxic materials, radioactivity, hazardous chemicals or heavy metals. When do we stop using the ocean as a universal sewer? It's our choice.

**CURRENTS:** Are there other emerging areas that you want to mention from an ocean policy perspective?

**COUSTEAU:** Well, the ocean covers 70 percent of the planet. We protect a very small portion of the ocean—less

than one percent of it—but we have protected 11 or 12 percent of our land. We need to do a better job of protecting the ocean. The Ocean Futures Society was involved in helping President Bush to protect what was at the time, the largest piece of ocean ever protected. The British have done better since then which is great, but it's still not enough. We need to do a lot more.

Coastal regions are very important to protect. They're

## More About Jean-Michel Cousteau

**THE SON OF** ocean explorer Jacques Cousteau, Jean-Michel Cousteau has investigated the world's oceans aboard *Calypso* and *Alcyone* for much of his life.

He has produced over 80 films, received the Emmy, the Peabody Award, the 7 d'Or (a French television award), and the Cable Ace Award. In addition, Cousteau has been recognized for many "firsts" in a variety of endeavors.

In the first attempt ever to return a captive orca to the wild, Jean-Michel merged three non-profit organizations to form the Ocean Futures Society in 1999. The Society was dedicated to continuing research and care for Keiko, the captive killer whale of "Free Willy" film fame. In 2002, Keiko was returned to the wild, and the Ocean Futures Society changed its focus and evolved into a global "Voice for the Ocean."

Some of Jean-Michel's other accomplishments include writing a syndicated column carried in over 60 newspapers worldwide; leading the first undersea live video chat on the internet; and participating in a live downlink from the Space Shuttle Columbia to CNN to commemorate the International Year of the Ocean. In 2002, he became the first person to represent the Environment in the Opening Ceremony of the Winter Olympic Games in Salt Lake City.

In 2006, Jean-Michel's initiative to protect the Northwest Hawaiian Islands took him to The White House where he screened his PBS-KQED documentary, *Voyage to Kure*, for President George W. Bush. Inspired by the film, the president declared the 1,200-mile chain of islands featured in the film a Marine National Monument—at the time the largest marine protected area in the world.

Using his training in architecture, Cousteau has designed such projects as artificial floating islands, schools, and an advanced

marine studies center in Marseilles, France. In 1969, he led the transformation of a 100,000-square foot section of the *Queen Mary* into the Living Sea Museum in Long Beach, CA. He also directed the design and development of the Parc Oceanique Cousteau in Paris, an innovative public attraction to teach visitors about the ocean without displaying any captive animals.

Jean-Michel Cousteau  
with stranded orca.

© Carrie Vonderhaar,  
Ocean Futures Society



Today Cousteau lives in Santa Barbara, CA. Following family tradition, he has involved his own children, Céline and Fabien, in his filmmaking endeavors.

For more about Cousteau, visit [www.oceanfutures.org](http://www.oceanfutures.org).

critical for food and for the reproduction of many, many species. They're also critical for the protection of the coastline from bad weather and tsunamis. Are we going to continue to cut the mangroves? Are we going to continue to allow the coral reefs to die? Those are critical places that are protecting us. Nature doesn't care. What about us?

Fishing is also an issue. I'm on the side of the fishermen. I don't want them to lose their jobs because we haven't managed the ocean properly. They are heading toward bankruptcy. We point fingers at fisherman and say they're overfishing but we're destroying the areas where they are fishing. We're polluting it, they're capturing it, then we're putting it on our plates loaded with toxins. We are completely nuts! That can change but it will take a lot of communication.

**CURRENTS:** Are there some areas that are ripe for collaboration between the Ocean Futures Society and the Navy?

**COUSTEAU:** My father was in the French Navy. I grew up among naval officers. So I have a lot of respect for the Navy. If anybody understands anything

and not directly—were: "It's too far away." and "It's too expensive." I think the Navy can think longer term.

**CURRENTS:** Talk about your involvement with the National Ocean Council.

**COUSTEAU:** We're trying to help the educational system do a better job. And I think the National Ocean Council is doing a great job of that. We created an organization called the World Ocean Network (WON) which is connecting to a lot of these same institutions to communicate the importance of the oceans. WON is trying to get people to think globally. For example, the gray whale, on its longest migration, comes up along the coast of California, Oregon, Washington State, and then travels into Canada. There's nobody checking their pass-



Victoria Bermel

If anybody understands anything about the ocean, the Navy does.

about the ocean, the Navy does. But they're making mistakes just like everyone else. But I think it can change very easily. We just need to better communicate.

We can work more closely with the U.S. Navy. Navies are using sonar for some very valid reasons—for security and protection—which I completely understand. Those tests are needed to identify enemy submarines. But there are places where this testing can be done where there are no marine mammals present. We've already indicated places where that can happen. Some of the answers we got—

ports when they enter another country. There are no borders for the gray whale. Borders are artificial things that we've created. So WON provides "ocean passports" for adults and children.

**CURRENTS:** Talk about how you and your organization interact with other environmental groups.

**COUSTEAU:** We interact with other environmental groups on a project-by-project basis. But we will only work with other environmental organizations that are

not in conflict with people—breaking the law, being aggressive, insulting people—that is not acceptable to us. I don't disagree with their objectives. I just don't agree with the way they go about achieving them. If you break the law, it's anarchy. We will sit down with decision makers and team up with some NGOs on specific issues to try to make a difference. I have a lot of respect for the majority of them.

**CURRENTS:** Do you have a vision for what you'd like the ocean to be like 50 or 100 years from now?

The day we have ten percent of the ocean protected is the day I will start to smile.

**COUSTEAU:** Well, the good news is that information is becoming more and more available. There is more and more information that is being provided to the school systems and to decision makers.

I was in Washington a while ago and we had some very nice conversations with folks from the Department of Interior, Department of Commerce, National Aeronautics and Space Administration (NOAA) and other federal agencies. Those people want to hear what we have to say. And I think that is very helpful. So in that sense, things are changing. But in our view, not fast enough. If you care about your children and grandchildren and you want them to have the same privileges that we had, we really have to preserve more of the ocean. The day we have ten percent of the ocean protected is the day I will start to smile.

**CURRENTS:** As you may know, the U.S. Navy has installed systems on our ships to keep plastic out of the oceans and manage other shipboard waste in environmentally responsible ways. We're also looking for ways to use fewer and less toxic chemicals for building and maintaining our ships and seeking new processes and technologies for making

ships more energy efficient. Do these types of initiatives align with your perspective on how ocean vessels should operate and be built or maintained?

**COUSTEAU:** Well, of course the answer is yes. Most of the focus has been on cruise ships. There are 320 cruise ships circling the globe. While the media is focusing on cruise ships, which are doing a much better job of



Fabien and Céline Cousteau with manta ray.  
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keeping their junk out of the ocean, there are 165,000 other ships at sea 24-7. These are the ships that are causing the problems. This is where our focus should be.

When you look at the crew on board those ships, they have no education. Often the officers cannot communicate with the crew because of language barriers. Some of those ships sit in port for weeks and sometimes months. Their crews go to shore and they get into trouble because they have nothing else to do. They have very little money. We need to educate these people. We need to provide them with the right information and the U.S. Navy could do that—communicate with every human being on those ships. Why don't we have, in every port on the planet, free access to multi-lingual, audiovisual information about the ocean and what they can do to protect it? This is a dream of mine. We can provide those people with the

materials that will help them change their behavior. People will change when they know what the right thing is to do. How can you change if you don't know? I think the U.S. Navy can be leading this effort, particularly during peace time, for other ships, wherever they are.

**CURRENTS:** You're saying that the cruise ships are doing the right thing but other commercial ships are not?

**COUSTEAU:** Any new cruise ship is equipped to do the right thing. Whether it's the storage of recyclables or the storage of oil and grease—they offload it in the right place and it's being reused. But some ships, many of which are not allowed in U.S. waters, discharge their bilges directly into the ocean. And then there's laziness. Not many years ago, pictures were taken of a crew throwing things overboard at night. Well, they got caught and were punished. And it cost the company a lot of money. So I don't think they're doing that anymore. But let's not focus on the cruise ships. Let's focus on the 165,000 vessels that are crossing the planet on an ongoing basis. Those are the ones that need to be educated. The U.S. Navy has aircraft carriers with better than 5,000 Sailors onboard. Are they aware of how they can protect the ocean? I don't know. That has a lot to do with leadership.

**CURRENTS:** The Navy trains all of its Sailors about sound environmental practices. Each Sailor goes through training courses to make sure they understand their environmental obligations while at sea.

**COUSTEAU:** If the U.S. Navy can train all of its Sailors, perhaps they can offer that same training to

other navies of the world. There is no security or politics involved there. We can all help each other.

**CURRENTS:** In October of 2009, the Secretary of the Navy laid out five ambitious goals for conserving energy and transitioning away from fossil fuels. Are you aware of those goals?

**COUSTEAU:** I am aware that one of your ships has been propelled by fuel created from a one-cell algae plant. And I know that they have received quantities of that fuel for further testing although I'm not familiar with the results of those tests. Fuel from one-cell algae is the way we need to go—it's the fastest growing plant on the planet.

**CURRENTS:** The Navy has demonstrated an algae-based fuel in one of our riverine boats last summer. We also had a successful demonstration of our premier jet aircraft using a camelina-based fuel. We also ran a story in our spring 2011 issue about a collaboration between the Navy and NOAA to develop the algae-based fuel of the future. That might give you some insights into the type of thing that the Secretary of the Navy is asking us to make happen.

**COUSTEAU:** I look forward to reading about those efforts.

**CURRENTS:** We're also using sustainable energy sources on our bases such as solar, wind power, and geothermal,

## The Navy & Algae-based Fuels

READ MORE ABOUT how the Navy's research, testing and use of algae-based fuels in two recent issues of *Currents* magazine. In our winter 2011 issue, "Navy Fuels Great Green Fleet Vision" details a full-power demonstration of a Riverine Command Boat powered by algae-based fuel. And in our spring 2011 issue, read about an underwater algae production project in "NASA & the Navy Developing the Fuel of the Future."

You can download a copy of either article at the magazine's home on the Internet at <http://greenfleet.dodlive.mil/currents-magazine>.



and are funding pilot programs to explore ocean thermal energy conversion as an energy source where feasible.

**COUSTEAU:** I'm very, very excited to hear about these initiatives. If the U.S. Navy cannot be the leaders in this field, I don't know who can. Our job is to share that information and make people believe that we're going to make it happen. It's not the end of the world unless we do nothing. Any information you can help us with, I guarantee you will be shared.

**CURRENTS:** You talked a lot about public awareness about the ocean, and that you need to understand something in order to protect it. How else does public perception of environmental issues affect your efforts? How else can you change those perceptions?

When you talk about the environment, maybe 30 or 40 percent of the people listen. When you talk money, you've got everyone's attention.

**COUSTEAU:** Well, one of the things we're doing is producing a series of books on the U.S. National Marine Sanctuary system. We did a two-hour television special on the sanctuary system. Here is what triggered the whole initiative. We asked people in the streets a series of questions about the sanctuary system—How many marine sanctuaries are there? Who is paying for them? How are they managed?—that sort of thing. The answers we got were shocking. No one knew anything.

One day we were in Georgia, preparing for a dive in a sanctuary, offloading our tanks, cameras of other equipment from our truck when a guy stopped and asked us what we were doing. I said, "We're doing a show about the marine sanctuaries." He said, "I didn't know the Marines had a sanctuary."

It's funny but also sad and shocking because this country has done an amazing job of protecting its critical coastal waters. That's when I realized that we needed to find ways to get books about the sanctuary system into every school in the United States.

In terms of changing people's perceptions, we need to focus more on economic values. I'll use a simple example. When I go grocery shopping with a reusable bag here in California, I get five cents every time I bring one bag. If I bring two bags, I get ten cents. I've saved money and helped the environment at the same time. I've helped to keep a plastic bag out of the mouth of a sea turtle who thinks it's a jellyfish. When you talk about the environment, maybe 30 or 40 percent of the people listen. When you talk money, you've got everyone's attention. So I've found myself talking more and more about money.



**CURRENTS:** Is there anything else you'd like our readers to know?

**COUSTEAU:** Well, I really would like *Currents* to reach more people. I think there's a lot of information that you have that the public would love to access. I have to say that, unlike other parts of the military services, people love the Navy.

**CURRENTS:** We are certainly trying to expand our reach. That's one of the reasons for these interviews with you and other influential leaders in the environmental community. We appreciate you taking the time to talk to us and share your perspective.

**COUSTEAU:** I wish you well and thank you for what you're doing. ⚓