



Understanding the interaction of the Earth's two major fluid bodies, the atmosphere and the ocean, is fundamental to predicting future changes in our climate.

USF: UNSTOPPABLE

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Dear Alumni and Friends of USF,

The University of South Florida, a world leader among research universities, is at the forefront of cutting-edge scientific discoveries that will help shape the future. In particular, issues related to climate change are gaining great traction within the academic and scientific communities.

For more than four decades, USF's College of Marine Science has been conducting basic and applied research through the application of biology, chemistry, geology and physics to the marine environment, as well as to the interactions between the sea and the adjoining atmospheric and land systems. As a result, CMS is well-poised to tackle the complex challenges facing humankind.

Recently, our world-renowned scientists, including faculty members and graduate students,

have been working more intently than ever with state and federal agencies to better understand the oceans to create global solutions to our most serious problems. It is a quest we must support in every way, for all our sake.

The experts at CMS recognize that the ocean is an intricate system that comprises interactions among a virtually limitless number of subsystems. With the atmosphere being literally everywhere, and the oceans accounting for nearly three-quarters of our planet, understanding the relationship between these systems is absolutely essential.

Water, at least in large quantities, is unique to Earth, and most scientists believe that without it, life as we know it would never have evolved. The Earth's hydrological cycle—the movement of water from the



ocean to the air to the land and back to the sea—is based on ocean/atmospheric interactions, which is why our scientists view the hydrological cycle as a primary area of research.

In addition to the “whole-Earth” approach, CMS is also building an increased presence in smaller scale ocean/atmosphere science. Scientists examine weather and climate in selected regions, including the western Atlantic, the Gulf of Mexico and the Caribbean Basin—specifically those areas that affect Florida.

As they do so, CMS scientists are building interdisciplinary research teams through the Center for Ocean Technology using the latest innovations in order to quantify the effects of development on the coastal ocean (depleted fish stocks, coral reef decay) and the threats that the ocean poses to this development (red tides, hurricane storm surge, elevated sea levels).

Life in the ocean is intimately linked to the hydrologic cycle and land-ocean interactions.

Scientists know that marine life responds to the ongoing changes in the global earth system, but little is known about how and under what conditions marine life responds to such changes. We must, therefore, succeed in these scientific endeavors. Human life is increasingly dependent on the ocean, and many marine species are now threatened. Learning to predict the changes that will affect ocean resources is essential.

Each of us is responsible for helping sustain the ecological systems that are vital to the Earth’s survival. The scientists at CMS are engaged in ground-breaking research that truly impacts our world. Please join me in supporting their efforts—our future depends on it.

Sincerely yours,

A handwritten signature in green ink that reads "Judy Genshaft". The signature is written in a cursive, flowing style.

Judy Genshaft, President

