

Profile of Edward L. Miles

Edward L. Miles is one of the few National Academy of Sciences (NAS) members without a formal background in science.

However, his extensive studies in international relations and oceanography have brought him into the thick of the debates regarding the laws of the seas and climate change. Elected to the NAS in 2003, Miles is the Virginia and Prentice Bloedel Professor of Marine Studies and Public Affairs at the University of Washington (Seattle, WA) and Senior Fellow at the Joint Institute for the Study of the Atmosphere and Ocean, also at the University of Washington. In his Inaugural Article in this issue of PNAS (1), Miles and his research team propose the creation of a National Climate Service in the United States. Such an agency could provide authoritative short- and long-term information, predictions, and recommendations regarding climate trends and variability at regional, national, and global levels.

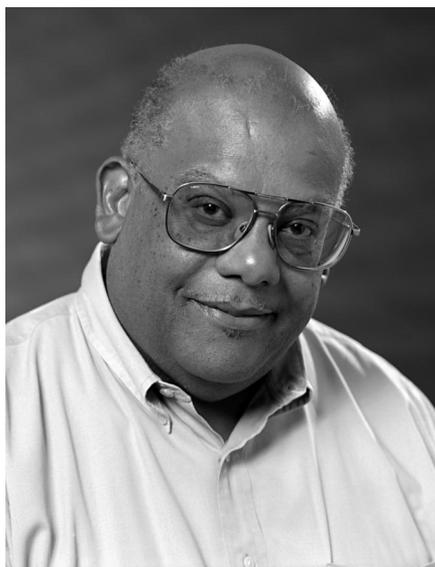
Trinidad to DC, via Norway

Miles was born in Trinidad in 1939, where he lived until college. Trinidad was then a British colony, and for college Miles had to choose between studying in England or the United States. His inclination was to go to the United States to become a fighter pilot, but his father, an electrical engineer, talked him out of it. Miles instead chose to attend Howard University (Washington, DC), where he majored in history with a minor in politics. After graduating in 1962, Miles attended summer school at the University of Oslo (Oslo, Norway). He fell in love with the country and has returned many times to Norway for research collaborations.

In 1962, Miles enrolled in a Ph.D. program in international relations in the Graduate School of International Studies at the University of Denver (Denver, CO). His supervisors were Dean Josef Korbel, father of former U.S. Secretary of State Madeleine Albright, and B. Vincent Davis, an international relations and national security expert. Miles' thesis focused on the process and politics of codifying and progressively developing international law. He also studied how international law was developed regarding the oceans and outer space. When Miles completed his degree in 1965, he was offered a faculty position in his department, which he accepted.

Entering International Policy Waters

Miles planned to write a series of books on the politics of creating international



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law, first on space, then the oceans, and finally a theoretical piece putting the lessons learned from the two case studies together in a broader framework. After finishing the project on outer space (2), he tackled the study of policies governing the oceans and has remained in this academic area ever since. Miles' involvement with ocean policy began in 1967, when he was invited to join an interdisciplinary group of oceanographers, fisheries biologists, ocean engineers, and lawyers based at Ohio State University (Columbus, OH) and studying ocean policy problems at national and global levels. Later this group merged with the Law of the Sea Institute, and several members joined a new International Marine Science Affairs Panel at the National Research Council.

In 1972, Miles received an International Affairs Fellowship from the Council on Foreign Relations to spend a year conducting research on his oceans project at the International Oceanographic Commission in Paris. Miles says, "The Law of the Sea conference was just being organized at that time, and I had studied the process of creation in international law. This was an opportunity to get in on the ground floor with respect to the ocean. So I became involved with that in the summer of 1973, and I never left."

The Convention on the Law of the Sea, which was completed in 1982, was one of the longest, largest, most complex, and most difficult sets of negotiations that the United Nations had ever hosted. Miles followed the years of negotiations and showed that the result

was determined by the structure and dynamics of the negotiation process. "I was a participant, and I followed it for 10 years. I wrote a book that details how the law was brought into being," he says (3).

As the conference got underway, Miles went to Cambridge, MA, in 1973 for a year at the Harvard Center of International Affairs, with a joint appointment to the Woods Hole Oceanographic Institution (Woods Hole, MA). He was a senior fellow and helped then-president Paul Fye set up the Marine Policy Center. "While there, I decided that I was going to spend quite a bit of time on the ocean. The people at the University of Washington were creating an institute for marine studies as an integrated science, social science, and law experiment. They were making an approach to bring me to Seattle, and I had to say I was really interested," he says. In 1974, Miles moved to the University of Washington and has been there since.

Serious About Oceanography

"I decided if I was really going to do this seriously and go to [University of] Washington, I needed to learn the science as well," Miles says. He began learning oceanography at Woods Hole Oceanographic Institution and continued these studies at the University of Washington. "I became really interested in fisheries and problems of international management of fisheries," he says, "and I started working on that as well as oceanography. I have continued so for more than 30 years now."

Miles' work on fisheries peaked in the 1980s when he and colleagues from the United States and Norway launched a large study of international environmental regimes to determine what factors raised or lowered the chances of reaching a successful resolution on the problems for which the regimes were designed. The work was timely because the first Intergovernmental Panel on Climate Change (IPCC) had begun its work. Miles started writing a book evaluating the effectiveness of international environmental regimes in which science and technology play a large part. The IPCC report was coming up, and he and his colleagues decided to survey more regimes than had been assessed in the literature and to focus almost exclusively on oceans because ocean studies had

This is a Profile of a recently elected member of the National Academy of Sciences to accompany the member's Inaugural Article on page 19616.

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mediately shot down. “I expected a lot of questions, doubts, queries, and challenges, but that didn’t happen,” he says. Instead, he says what happened was “like setting a match to tinder. There was great receptivity. I don’t mean people agreed with everything I said, but it sort of broke the logjam on conceptualizing the problem. People were very excited about it, and I came back home and got a lot of questions from the team.”

In his Inaugural Article, Miles asks five major questions regarding a National Climate Service: why it should be built, what it is, what functions and services it provides, how it should be designed, and how it should be evaluated. Miles and his colleagues say the time is right to develop a National Climate Service that can aid citizens, businesses, and governments in making the best use

of emerging knowledge about the consequences of climate variation and change. Climate science and the understanding of climate impacts on resources has improved enough in the last 20 years that a climate service could now provide useful information about climate and climate impacts for interested parties.

Miles and his team say a national network should be developed because stakeholders are not making full use of existing climate and climate-impact information. They propose that the National Climate Service should be organized like RISAs are now, with small regional centers providing tailored information. Enough centers could be established to cover the entire country. “NOAA should be the leader of a congressionally mandated interagency partnership,” says Miles. He says the National Climate Service should be

linked and networked at the regional level through regional offices of partner agencies, RISAs, NOAA’s regional climate centers, the National Weather Service, state climatologists, and the new National Integrated Drought Information System.

Conveying his belief in the urgency of the matter, Miles thinks that a National Climate Service could be in place in 5 years. “NOAA needs to take the lead, and we have to have support of the administrator, and conversations have to be developed within the executive branch and between the executive [branch] and Congress,” Miles says. “We hope that we have provided some impetus for those conversations to take place in a focused way, where they have not been before.”

Philip Downey, *Freelance Science Writer*

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