International Marine Minerals Society

MOORE MEDAL
2015 CITATION

The International Marine Minerals Society (IMMS) presents Charles L. Morgan, with The Moore Medal*, which is given in the name of Professor J. Robert (Robby) Moore for distinction in the development of marine minerals. Professor Moore conducted marine minerals research at Cardiff University in Wales, Great Britain and the Universities of Harvard, Wisconsin, Alaska, and Texas in the United States. He was committed to the intelligent integration of government, industry, and academia to address the development of marine minerals.

Robby founded the Underwater Mining Institute and IMMS, and he committed his research and many other considerable personal efforts to the multidisciplinary development of marine minerals. The Moore Medal is not awarded on any regular basis, but is reserved for those rare occasions when the career of an eminent figure in marine mining and minerals activities warrants such an honor.

*Robert W. Cooke earns a living designing and making monumental sculptures for many customers, mostly in the Northwest. Before becoming a full-time artist, Bob was the Exploration Manager for the International Nickel deep seabed mining consortium. He attended many UMs and became a good friend of the Institute and many of its participants. He designed and made the Moore medal when IMMS decided to initiate the award.
Dr. Charles Morgan is awarded the Moore Award, generally, for his long-term dedication to the worldwide development of marine minerals resources and, specifically, for his tenacity in serving as the Technical Chair of the annual Underwater Mining Conference for more than twenty years.

In 1971, Morgan obtained a BA in Chemistry, with a specialty in the Earth Sciences from the University of California, San Diego. He then completed the PhD program in 1975 at the University of Wisconsin, Madison for Oceanography and Limnology under Professor Robby Moore, founder of the International Marine Minerals Society and the Underwater Mining Institute, with a thesis focused on a comparison between ferromanganese nodules that formed in Lake Michigan with those retrieved from the deep seabed in the Clarion-Clipperton Zone (CCZ) of the northeastern tropical Pacific. While working on his thesis at Wisconsin, Morgan was interviewed in his Wisconsin laboratory by Mr. Conrad Welling (Moore Award Winner in 1998) who was leading a nascent effort by Lockheed Corporation to develop the CCZ deposits and looking for talent to participate in this effort.

Immediately after completing his doctorate, Morgan accepted a position with Lockheed Ocean Systems in California. He worked for a decade on the exploration for manganese nodules within the CCZ and the development of environmental regulations and impact analysis for mining these deposits. He worked as co-chief scientist on a number of long oceanographic cruises to the CCZ, collecting geological and biological samples, specimens, and data to help characterize the manganese nodule resources in the region and the ecological setting where they are found. He spent more than a year, distributed over about three years, working with lawyers and regulators in Washington DC on the development of regulations for the exploration and mining of manganese nodules under U.S. law.

In 1984, shortly before the original Lockheed program was phased out due to economic and political considerations, Morgan took a consulting job in Hawai`i, working for the U.S. Department of the Interior on a resource and environmental impact assessment project evaluating the ferromanganese crust deposits within the Hawai`i and Johnston Exclusive Economic Zones. He worked until 1999 as a researcher at the University of Hawai`i and between 2000 and 2016 as a consultant at a private firm in Hawai`i, Planning Solutions, which specialized in coastal and marine environmental impact assessments.
Between 1997 and 2001 Morgan was the first, and to date only, US Representative serving on the International Seabed Authority Legal and Technical Commission. Between 2006 and 2008 he served on the U.S. Department of the Interior Outer Continental Shelf Policy Committee.

In 1994, at the request of Robby Moore, he assumed the role as the Technical Chair for the Underwater Mining Institute (later renamed the Underwater Mining Conference), and continued in this capacity until 2015. During his tenure as Technical Chair, the UMC expanded its reach beyond the shores of the US and Canada, involving participants from over 25 countries. Morgan chaired conferences in ten different international destinations.

Morgan was the first author of the International Seabed Authority 2009 Technical Report #6, which is to date the most comprehensive publicly available resource assessment of the CCZ manganese nodule deposits. Based in Hawai‘i, he continues to work as an independent private consultant on environmental and seabed mineral development projects.

Samantha Smith, IMMS President
September 2015