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John Goering is interviewed by Steve Sherman talks about Bering Sea oceanographic exploration

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Steve Sherman: Alaska's Bering Sea is second in size to only the Mediterranean. Its continental shelf is larger than all the other states combined. Its waters are rich in marine life ranging from microscopic plants to whales. Yet little is known about the Bering Sea. Its high winds and shifting ice packs and volcanic shoals have made the Bering the nemesis of mariners for centuries. This month University of Alaska oceanographers from the Institute of Marine Science will begin the first phase of a long-term oceanographic exploration of the Bering. Here today to tell us what the University of Alaska researchers will be looking for is Dr. John Goering, a biological oceanographer at the university. Dr. Goering, what makes the Bering Sea so unusual and intriguing for oceanographers?

John Goering: Well perhaps one of the major things that has interested oceanographers about the Bering Sea is its extreme productivity. By this I mean the extreme or large production of organic matter that goes on in the area. In fact one of the highest values of photosynthetic fixation of carbon that has ever been measured in the open Pacific Ocean has been measured just north of Unimak Pass which occurred in the Bering Sea. So from a biological point of view it is quite interesting and unique. Also the vast or extensive continental shelf is of interest to many because of the possible minerals that lie hidden there. By this I mean there's potential of oil and gas production. You know about the various precious metals which are existing or thought to exist off the coast of Alaska near Nome. So there's quite an interest in the continental shelf. And it's of interest to physical oceanographers because of the extreme surges of storms and because it is covered with ice part of the year.

Steve Sherman: What are some of the projects that you will be undertaking?

John Goering: Well we'll begin the study this year supported by the National Science Foundation which will involve three major aspects. One of the primary projects or one of the primary parts of the project will be a study of the hydrography of the area just north of the Aleutian Chain. And this will include a study of the major current systems and particularly we'll be interested in the mixing of Bering Sea water and Pacific Ocean water through the various passes of the chain. Another part of the study will be dealing with the production of organic matter that I mentioned earlier. And this will involve primarily measuring rates of production of organic matter on a seasonal basis. Very little is known what goes on in the Bering Sea in the winter time. Most of the work that has been done in the past has been done only in the summer. And we'd like to see what happens there in the winter.

Steve Sherman: In other words you don't have any precedence study to refer to.

John Goering: That's correct. Most of the work that has been done there has been summer and we would like to take a seasonal look. And concerning this productivity we'll be spending of our time mostly looking at the initial steps in the food chain. We'll be studying the photosynthetic fixation of carbon and the microscopic plants and animals which of course form the basis for the complex food chain ending in

such things as fish and mammals which are very abundant in the area. And the third part of the study we'll be looking at some of the trace metal chemistry. In particular here we'll be studying the influence of some of the metals such as copper and zinc on the production of organic matter. They are known to be important and the exact importance is what we'd like to work out. There's another sideline study here which also will be started which is looking at the carbon dioxide cycle. We all know that carbon dioxide, water and sunlight gives us the first product of photosynthesis which is carbohydrate or sugar. And so the carbon dioxide cycle will be examined since it is such an important area in the production of organic matter.

Steve Sherman: How long will all this take? Is there a time schedule of some sort that you have already?

John Goering: This first phase dealing with the study that I just outlined will last two years. But we do intend to continue studying the Bering Sea for who knows until we know all that we want to know.

Steve Sherman: Thank you Dr. Goering.