

2000-78-41

Dr. Tom Royer, speaker

Karen Cedzo, moderator

Series: University focus

1981

Tom Royer from the Institute of Marine Science (IMS) has been studying the recirculation of the sub-Arctic gyre that is comprised of the Alaska current. The Alaska current travels westward and then at some point it travels eastward. It is unknown if the Alaska current goes all the way to Asia. Royer's studies funded by the National Science Foundation were begun last July. Five buoys were placed in the north Pacific. The buoys transmit data on their position, water temperature and the condition of their batteries. Gilmore Tracking Station receives the data and it is sent to Maryland where it is transmitted by radio to France to an American French joint venture. The French are interpreting the data. Everything was fine until a few weeks ago. Royer said the buoys were put out along a line at 160 degrees west. The northern most buoy is up near the Aleutian Islands. The three northern buoys were drifting west and the two southern buoys were drifting east. They had them in the center of a very large gyre. The northern most buoy actually went through one of the passes about a month ago and then into the Bering Sea and then back to the Gulf of Alaska. Suddenly between the 24<sup>th</sup> and 26<sup>th</sup> of November it began going north into the Bering Sea at eight knots in a straight line. They assumed at that point that it had been picked up by a ship. It staying in the Bering Sea for several days and then started in a direct line for the northern coast of Japan. They knew where the buoy was, but they weren't sure which ship it was on. Fortunately IMS has friends in Japan. On the 3<sup>rd</sup> of December they could tell that the buoy had stopped and was in port in northern Japan. Dr. Yukihamo who is with IMS had a friend with the Japanese Fisheries in that particular port. Within two hours of the buoy being in port it was located. The lost buoy will be returned to either the Bering Sea or the north Pacific. Instructions asking the curious will now be printed in Japanese, Korean and Russian before it is redeployed. The buoy that was picked up was the most interesting. It was the only one to travel in and out of the Bering Sea on its own. Royer said it did show there was an exchange of water from the Gulf of Alaska into the Bering Sea. It also showed there was transport of water out of the Bering Sea back into the Gulf of Alaska. One of the problems they could be looking at in the future is what is the exchange of water between the Gulf of Alaska and the Bering Sea. It is not clear at this point what it is. Cedzo said the batteries were expect to last until April. Data will be interpreted and subsequent studies will be developed. The ship that picked up the buoy has a reputation in Japan. Royer said it is already famous in Japan because several years ago it snagged a Russian submarine in its nets. Cedzo said Dr. Royer has been with the Institute of Marine Science since 1969.

Karen Cedzo reports on the campus calendar and activities.