

Dr. Van Dorn lecture re Good Friday Earthquake in Alaska

May 28, 1964

Three days after the Good Friday earthquake and tsunami struck Alaska with devastating force, a Scripps Institution of Oceanography scientist, Dr. William G. Van Dorn, was working in the disaster area.

The immediate investigative work together with evidence gathered since have allowed Dr. Van Dorn to piece together most of what took place the evening of March 27. The dramatic results will be presented publicly for the first time by Dr. Van Dorn at 8:00 p.m., Monday, June 1, in Sherwood Hall, La Jolla. The lecture, presented by the Committee for Arts and Lectures of the University of California, San Diego, will be documented by color photo slides taken by Dr. Van Dorn while working in Alaska.

The lecture is free and open to the public.

Dr. Van Dorn, an Associate Research Oceanographer and a specialist in wave mechanics, flew to Alaska to attempt to reconstruct the events which took place during and immediately following the earth tremors. He spent nearly two weeks surveying the area attempting to establish the source of the tsunami, or wave action, which swept its destructive force as far south as California.

Dr. Van Dorn found that a huge block of material encompassing 60,000 square miles--larger than the state of Florida--tilted on an axis running northeast-southwest and nearly parallel to the Alaska Peninsula. The tilted land mass lies mostly under about 100 fathoms of water off the west coast of the state.

The tilting of this huge block produced a giant seiche, an effect similar to that of kicking water in one end of a massive bathtub. Dr. Van Dorn found that a great torrent of water surged from the south edge to the north edge of the tilting land mass. Almost immediately, most of the wave action was then reflected with great force back to the south and on down the coast of Canada and the United States.

The major damage to the port towns located throughout Prince William Sound was caused by the gigantic seicheing action in the long narrow fiords. Dr. Van Dorn found that a cross seiche, racing across the fiords, occurred shortly after the earthquake and caused minor damage. This was followed, about 30 minutes later, by a longitudinal seiche, coming the length of the fiord which swept in and wrecked the area.

During his two weeks in Alaska, Dr. Van Dorn spent much of his time interviewing eyewitnesses, studying aerial photographs, and flying to as many of the rugged and uninhabited islands as he could reach.