Robert Christy, Manhattan Project physicist, dies

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PASADENA, Calif. (AP) -- Robert F. Christy, a former California Institute of Technology professor who helped design the trigger mechanism for the atomic bombs used in World War II, died Wednesday. He was 96.

Christy died of natural causes at his home in Pasadena, surrounded by his family, according to Caltech spokeswoman Deborah Williams-Hedges.

Christy was one of the early recruits to the Manhattan Project at Los Alamos Laboratory, a U.S. government research project to develop atomic weapons during the war. He was hand-picked to join by his University of California, Berkeley, professor J. Robert Oppenheimer, with whom Christy studied quantum mechanics.

The Canadian native devised what came to be known as the Christy bomb or Christy gadget, a plutonium implosion device.

Born in Vancouver, Christy showed mathematical prowess early in his schooling and skipped grades to graduate from the University of British Columbia when he was 19, according to a 1994 interview recorded in Caltech's archives.

Before the Manhattan Project began, Christy researched with the era's leading physicists, including Italian Enrico Fermi and Hungarian Eugene Wigner.

"What I was told was that they were trying to make a chain reaction. And the purpose of the chain reaction - well, it might be to drive submarines, or whatever. I was not told about bombs at the time," Christy said in the 1994 interview.

When the first bomb was tested at Los Alamos, Christy said everyone was pleased to have succeeded in the experiment, but a month later, when the atomic bomb was dropped on Hiroshima, it was a very sobering experience.

"There had been bombs dropped on cities. There had been firestorms, and so forth. I believe people nowadays don't realize that in war your objective is to beat the enemy. And unfortunately, mostly that involves killing a lot of the enemy to do that. So war is a very bloody thing," Christy said. "I felt then that although this was a terrible event, it probably saved many, many more Japanese lives. They probably would have lost millions if they had had to defend themselves against an invasion."

Later in life, Christy opposed the further development of nuclear weapons. He became a member of the National Research Council's committee on dosimetry, which studied the radiation effects of the Hiroshima and Nagasaki bombs.

At Caltech, Christy taught theoretical physics, nuclear physics and astrophysics and went on to serve as faculty chair, vice president and provost, and acting president.

While at Caltech, he investigated pulsations in the brightness of stars, which are used to measure cosmic distances. Christy was awarded the Royal Astronomical Society's Eddington Medal for his work.

He was elected to the National Academy of Sciences in 1965.

Caltech Physics, Mathematics and Astronomy Chair B. Thomas Soifer said Thursday that Christy was a major figure at the private university and a founder of a very important area of astrophysical research.

"Bob was an outstanding theoretical physicist; his contributions to scientific research, to public policy and his leadership helped in shaping what Caltech is today," said Soifer.

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