Tsunami!: Second Edition (Latitude 20 Books (Paperback))

Walter C. Dudley
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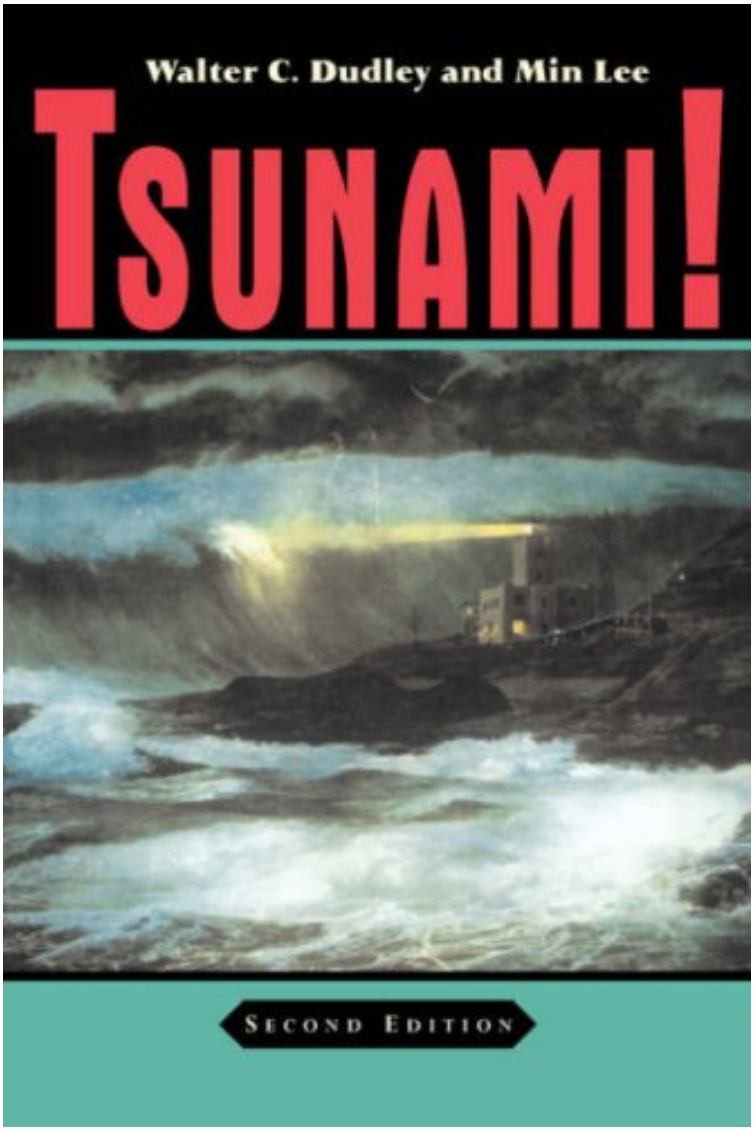

#162277 in Books Walter Dudley Min Lee 1998-11-01 1998-11-01Original language:EnglishPDF # 1 9.00 x 1.00 x 6.00l, 1.32 #File Name: 0824819691376 pagesTsunami | File size: 73.Mb

Walter C. Dudley : Tsunami!: Second Edition (Latitude 20 Books (Paperback)) before purchasing it in order to gage whether or not it would be worth my time, and all praised Tsunami!: Second Edition (Latitude 20 Books (Paperback)):

6 of 6 people found the following review helpful. Learn about tsunamis!By Jill MalterNow that there has been a huge disaster, with a tsunami off the coast of Sumatra in 2004, we may be interested in looking at a book about tsunamis, written in 1998.This book boasts about the early warning system in Hawaii. And it tells about proposals to install real-time tsunami detectors to protect Japan, the Philippines, Indonesia, and much of the rest of the Pacific Ocean

shores.Dudley and Lee begin with a description of the tsunami of April 1, 1946. 48 minutes after the earthquake, a 100-foot high wave struck Unimak Island, Alaska. Hawaii was over 2300 miles from the site of the earthquake, but it was struck less than 5 hours later, and there was considerable damage. There is also a description of the earthquake and tsunami that struck Lisbon, Portugal in 1755, killing tens of thousands of people.The book then describes how the complete lack of preparedness for the 1946 tsunami led to the development of an early warning system. This includes a "tsunami watch" and the use of the emergency broadcast system to warn everyone. And, of course, it includes predictions of wave arrival times at various places along the shores. In 1957, this system was tested when a 10-foot high tsunami from Alaska struck Hawaii. Hawaii's system was tested again in 1960, on the occasion of a very high magnitude earthquake in Chile (probably the largest earthquake in the world during the twentieth century). That generated a huge tsunami: those in Chile could have used an early warning of it! This tsunami was 35 feet high when it eventually struck Hilo, Hawaii. In 1964, the waves from the great Alaskan earthquake were less than a third that high when they reached Hawaii.The warning system was used to warn the residents of Hawaii in 1986 of a potentially damaging tsunami. But this turned out to be a false alarm: the waves that hit Hawaii were only one to four feet high and did no damage.The authors explain that Indonesia has been a frequent target of tsunamis, mentioning the ones in 1992 and 1994, as well as one that struck nearby Papua New Guinea in 1998. And it talks about the eruption of Krakatoa, which generated a tsunami that struck nearby Merak with a 135-foot high wave.Dudley and Lee discuss the threat of bolide-generated tsunamis (large meteor strikes). These could produce waves several hundred feet high, over a thousand miles away.The book concludes with a discussion of improvements in tsunami warning systems. Obviously, there is more work to be done!If you are near the beach and get hit by a big earthquake, some folks will tell you to head for the shore to get away from buildings and avoid the aftershocks. I suggest thinking twice about that!I recommend this book.1 of 1 people found the following review helpful. Still the best place to start on tsunamiBy Harry EagarThis is the review I wrote in 1988 of the first edition of "Tsunami!" The second edition is about twice as long, reflecting additional research:For a good, simple, workable idea, tsunami prediction has had a tough career.First, the idea was scoffed at. Thomas Jaggar, the founder of the Hawaii Volcano Observatory, had the idea that seismographic indications of big earthquakes could give hours of warning that a destructive "tidal wave" was on its way to Hawaii. He made successful predictions as early as 1923, but the technique was ignored for a long time.The disastrous 1946 waves, which killed more than 100 people in Hawaii, led to a revival of Jaggar's idea.Most of "Tsunami!" is devoted to retelling the experiences of people who lived through the big waves of the past generation in Hawaii. Many died, many lived but lost everything. There were also many exciting escapes.Unfortunately, although tsunami prediction works, it has had and still has problems with consumer acceptance. There would be fewer stories of exciting escapes if more people would take the warnings seriously. But to some, the declaration of a tsunami watch is a signal to head for the shore -- to watch.These funseekers contributed to the death toll of 61 when waves hit Hilo in 1960.The biggest part of the tsunami warning problem is that the system turns in too many false alarms. Any earthquake that shifts the sea floor in a big way may set off a cycle of huge waves. But not every big undersea quake does. (Landslides and exploding volcanoes also can initiate the misnamed "tidal" waves, but they are minor causes.)Tide gauges were added to the system to help sort out which quakes set off big waves. Still, with waves traveling up to 500 miles an hour, Hawaii has at best about six hours notice of a tsunami coming from the Aleutian islands.Co-author Walter Dudley, a tsunami researcher at the University of Hawaii-Hilo, says that the Pacific Tsunami Warning Center policy is to sound the alarm in doubtful cases. There seems to be no alternative, but too many false positives erode public confidence. (Since this book was published in 1988, the center's response time has improved considerably, but there has not been a big, Pacific-wide tsunami since then to provide a real-world test. In 2006, when a big undersea quake shook Hawaii, so close that any tsunami would have started reaching local shores within five minutes, the center was able, accurately, to predict "no tsunami" very quickly.)Under the circumstances, tsunami experts are faced with a constant struggle to keep the public educated about the danger (especially the public in Hilo, almost always the place in Hawaii that gets hit the hardest).Just now (as of 2006), they have an extra burden. In almost 200 years of record-keeping there have been about 96 tsunami in Hawaii, about one every other year. But there hasn't been a big foreign tsunami for more than 40 years. (The last killer tsunami in Hawaii, at Halape, Big Island, was in 1975, but it was unusual in being caused by a local earthquake at Kilauea.)Although the Boxing Day tsunami that devastated Southeast Asia in 2004 and was videotaped gave people worldwide a close look at what the waves can do, few in Hawaii have any good sense of what a big one would do here in the 21st century. Areas of Hawaii that were uninhabited the last time the waves struck are built up now. Scientists fear that the 159 deaths caused by the 1946 waves could be exceeded next time."Tsunami!" is packed with useful information. Dudley tells what tsunami are and how the warning system came into being. Co-author Min Lee collected the accounts from survivors of the 1946, 1952, 1957, 1960 and 1975 waves.Anyone living in Hawaii would be better off for knowing what's in this book. But if you live near the shore, and if the tsunami zone map in your telephone book includes your house, don't consider reading this book as an option. Make it an obligation.5 of 5 people found the following review helpful. A very good book about the Pacific tsunami hazardBy Jerald R LovellThe recent cataclysm in Southeast Asia points up a problem about which Pacific Ocean residents have long known; tsunamis or "tidal waves". This book is written by Dr. Walter

Dudley, one of the chief experts on tsunamis, and on how to detect them, and protect against them.The book is well-organized, highly readable for professional and lay persons alike, and is a valuable contribution to literature on this most important subject. The diagrams readily follow the text and greatly augment its understanding. The photographs are interesting, but average. However, tsunamis are not a subject in which photographs aid understanding to any real degree.Dr. Dudley carefully examines the various causes of this phenomenon, including meteor strikes and landslides, matters which have only recently come to the attention of science. He explains the physics of the tsunami with a merciful absence of complex mathematical equations.Considerable attention is devoted to the creation and development of the Pacific Tsunami Warning System, with specific reference being made to mistakes and corrections follwing each event. A very fine summary of each damaging Pacific tsunami over the last half of the 20th Century gives a excellent portrayal of the ever-present danger from such spasms of nature.Looking to the future, Dr. Dudley urges continued education and refinement of the Warning System as the best way to avoid enormous human disaster from these waves. It is ironic that he counsels warning systems should be in place all over the world, since any large body of water is subject to such disturbances.Since both our mainland coasts are subject to tsunamis, I think this book is must reading for anyone with coastal property, particularly for folks in Washington, Oregon, and California. Tsunamis cannot be stopped, but while property can be replaced, human life cannot. This book will help save yours by showing the dimension and frequency of the hazard, and what to do when a tsunami is imminent.I recommend this book very, very highly.

On April 1, 1946, shortly after sunrise, the town of Hilo on the island of Hawai'i was devastated by a series of giant waves. Traveling 2,300 miles from the Aleutian Islands in less than five hours, the waves struck without warning and claimed 159 lives. Fourteen years later, on May 22, 1960, a massive earthquake occurred off of the coast of Chile. The earthquake generated giant waves that sped across the Pacific at 442 miles per hour, reaching Hilo in just fifteen hours. The first wave to hit the town was a modest four feet higher than normal, the second nine feet. Before the third wave could arrive, a tidal phenomenon known as a bore smashed into the Hilo bayfront, with thirty-five foot waves that wrenched buildings off their foundations. That day several city blocks were swept clean of all structures and 61 people died. The first edition of Tsunami!, published in 1988, provided readers with a complete examination of the tsunami phenomenon in Hawai'i. This second edition adds many eyewitness accounts of the tsunamis of 1946 and 1960 and expands its coverage to include major tsunamis in the Mediterranean and off the coasts of Japan, Chile, Indonesia, Fiji, Alaska, California, Newfoundland, and the Caribbean, as well as the 1998 devastation in Papua New Guinea. Dramatic photographs and accounts of experiencing a tsunami firsthand are placed within the framework of the how and why of tsunamis, our scientific understanding of these phenomena, and the current status of the Tsunami Warning System, which is widely used to forecast and measure tsunamis and prepare coastal areas for potentially deadly tsunami strikes.

"Twice as long, fully updated, and far more comprehensive [than the first edition]. . . . A deeper and wider treatment of the subject. The edition retains a mix of personalized information, scientific data, and history told in a style that satisfies both technical and lay readers."About the AuthorDudley is professor of oceanography at the University of Hawaii at Hilo, scientific advisor to the Pacific Tsunami Museum, and media contact for the InternationalTsunami Information Center in Honolulu.Lee interviewed tsunami survivors and collected their stories while living on the Island of Hawaii from 1975-85.