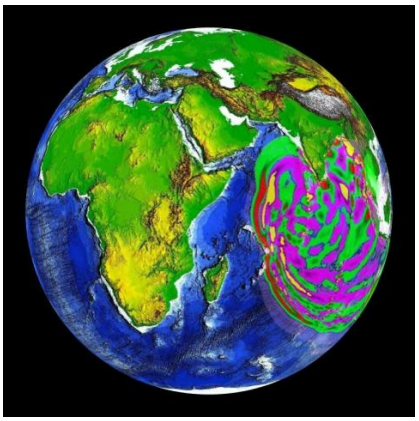
LACK of TSUNAMI WARNING SYSTEM



This illustration—from NOAA's "Science on a Sphere"—depicts the Indian Ocean tsunami as it moved across the water on December 26, 2004. Since the Indian Ocean lacked a tsunami-detection system, at the time, people were stunned when the waves arrived without any warning. Image online, courtesy NOAA.

Earthquakes occur nearly every day, but only damage-causing events make "the news." The USGS (U.S. Geological Survey) provides information about all those quakes and tremblors, both in America and around the world.

The "Ring of Fire," in the Pacific region, produces more earthquakes than any other place on Earth. However ... major seismic movements, like the Great Sumatra-Andaman Quake, can occur elsewhere.

A deadly tsunami, for example, was born in the same general area - near Sumatra - when a long-dormant volcano called Krakatoa erupted in 1883. After coming to life in May of that year, Krakatoa literally blew itself apart on August 27. The sound of that tsunami-causing explosion was heard on Rodrigues Island - in the Indian Ocean - nearly 3,000 miles away!

Like the tsunami of 2004, the tsunami of 1883 occurred without warning to anyone living in the area. Tens of thousands of people could not avoid, or outrun, the raging water.

By the 20th century, a tsunami warning system was in place throughout the Pacific Ocean. But ... on the day of the Great Sumatra-Andaman quake - during the early 21st century - not a single warning device was available in the Indian Ocean.

Things changed, in the aftermath of the disaster, but it took two years before the first DART (Deep-ocean Assessment and Reporting of Tsunamis) buoy was installed and operational. Today there are a few reporting buoys in place - between Sri Lanka and India (to the west) and Thailand (to the east) - as depicted on NOAA's interactive map.

On the morning of the 2004 quake, the first scientists to realize that a major seismic event had occurred were working in Hawaii. They had no clue, however, that a tsunami was forming.

Now that DART units are in place, in the Bay of Bengal, people living (and visiting) in that area should have some warning that a tsunami could threaten their lives and property. Seismic-caused waves can wreak havoc inland, as well as along the coast, so part of an appropriate warning response (and disaster plan) is to quickly reach high ground away from the shoreline.

No one knew about that, however, as events following the December 26th quake began to unfold.

See Alignments to State and Common Core standards for this story online at:
http://www.awesomestories.com/asset/AcademicAlignment/LACK-of-TSUNAMI-WARNING-SYSTEM-The-Impossible

See Learning Tasks for this story online at:
http://www.awesomestories.com/asset/AcademicActivities/LACK-of-TSUNAMI-WARNING-SYSTEM-The-Impossible

Questions 2 Ponder

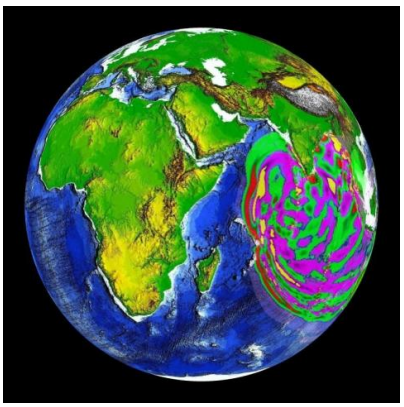
Why Did It Take So Long to Install a Tsunami-Warning System in the Indian Ocean?

After the massive tsunami of 2004 killed so many people, and rendered millions homeless, it took two years for the first DART (Deep-ocean Assessment and Reporting of Tsunamis) buoy to be installed in the Indian Ocean.

Why do you think it took so long for the first DART buoy to be installed after the 2004 tsunami caused widespread damage along the Indian-Ocean coastline?

If a similar tsunami-caused disaster had threatened the coastlines of a major world power, do you think the protection system would have been more quickly installed? Explain your answer.

Media Stream



Indian Ocean Tsunami - Wave Movement

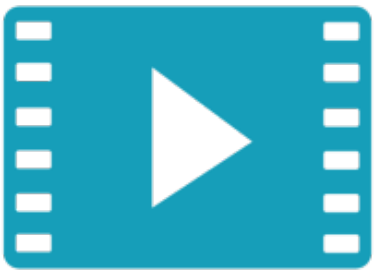
This image, from NOAA (National Oceanic and Atmospheric Administration), depicts the Indian Ocean tsunami as it began to move across the world's oceans beginning on 26 December 2004.

NOAA also provides a video to explain what happened as this deadly event occurred—without any warning at the beginning of the wave's destructive force—on the morning of December 26.

Click on the image for a better view.

Image of tsunami impact online, courtesy "Science on a Sphere" (NOAA).

View this asset at:
http://www.awesomestories.com/asset/view/Indian-Ocean-Tsunami-Wave-Movement



Tsunami Warning System - DART

Video clip, by NOAA PMEL, online courtesy NOAAPMEL's Channel at YouTube.

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