



## **Big Blast in Siberia**

Did you know that no one knows what caused the largest natural blast on Earth? It happened on June 30, 1908. The place was Tunguska, Siberia. This part of Russia is quite cold. Few people live there. No one is sure just what occurred. But all agree that it was good that it happened where it did. In other places it would have caused great loss of life. And no buildings would have been left intact.

The blast's power was shocking. It knocked down people, cows, and horses over 400 miles away! It flattened and burned everything within 24 miles of its center. Not one tree or building remained standing. Trees lay on the ground around a center point. They looked like spokes on a bike wheel.

Some people said that they saw a thing fall from the sky. This was a few seconds before the blast. Then there was such a bright light that they had to shield their eyes. For two months after the blast, people saw odd-colored sunsets. Streaks of green and bright yellow filled the sky all over Europe. And the nights never got dark. People could read outside at midnight!

Scientists have some ideas about what happened. But they cannot prove them. High radiation levels were measured at the site. This lasted for many years. It was an atomic explosion. Yet it occurred 36 years before humans made the first atom bomb. And it was more destructive than that first atom bomb. Small crystals found in asteroids have been found at the site, too. The most likely answer is that an asteroid blew up when it entered Earth's atmosphere. That would cause a natural atomic explosion. And it would explain why there's no crater (big hole in the ground).

Researchers say that the object weighed 10,000 tons. But we may never know for sure what it was.

## Big Blast in Siberia

This is a Native American's eyewitness account. Chuchan of the Shanyagir tribe was dozens of miles from the Siberian blast and survived to tell about it. In 1926, Chuchan told his story to I. M. Suslov, who wrote it down:

"We had a hut by the river with my brother Chekaren. We were sleeping. Suddenly we both woke up at the same time . . . We heard whistling and felt strong wind. Chekaren said, "Can you hear all those birds flying overhead?" We were both in the hut, couldn't see what was going on outside.

Suddenly, I got shoved . . . so hard I fell into the fire. I got scared. Chekaren got scared, too. We started crying out for father, mother, brother. But no one answered. There was noise beyond the hut. We could hear trees falling down. Me and Chekaren got out of our sleeping bags and wanted to run out, but then the thunder struck. This was the first thunder. The Earth began to move and rock. Wind hit our hut and knocked it over. My body was pushed down by sticks, but my head was in the clear.

Then I saw a wonder: Trees were falling, their branches were on fire. It became mighty bright, how can I say this, as if there was a second sun. My eyes were hurting. I even closed them. It was like what the Russians call lightning. And immediately there was a loud thunderclap. This was the second thunder. The morning was sunny. There were no clouds. Our sun was shining brightly as usual, and suddenly there came a second one!

Me and Chekaren had some difficulty getting from under the remains of our hut. Then we saw that above, but in a different place, there was another flash, and loud thunder came. This was the third thunder strike. Wind came again, knocked us off our feet, struck against the fallen trees.

We looked at the fallen trees, watched the treetops get snapped off, watched the fires. Suddenly Chekaren yelled, "Look up!" and pointed with his hand. I looked there and saw another flash, and it made another thunder. But the noise was less than before. This was the fourth strike, like normal thunder.

Now I remember well there was also one more thunder strike. But it was small, and somewhere far away, where the sun goes to sleep."

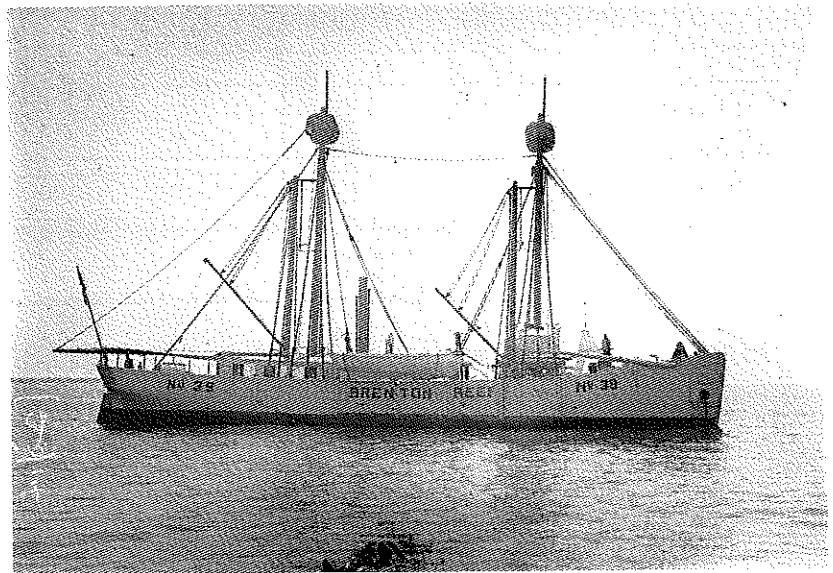
# Lightships

Did you know that the U.S. Coast Guard used lightships from 1821 to 1983? These ships were like moveable lighthouses. They were used where a lighthouse could not be built. They would anchor in a place with an underwater hazard. It might be a sandbar or rocks. A lightship might also mark the entry to harbors, rivers, and bays. Each ship had a bright light. It also had a loud foghorn. During fog, the constant noise from it blasted the sailors who lived on board.

The men who served on lightships spent 30 days at sea. Then they had 10 days of shore leave. Their life was unusual. Most of the time it was dull. They read or played cards. But at other times being on a lightship was scary. They had to ride out hurricanes and other bad storms. They could not move to safety. They had to stay in place to warn others. In November 1913, *Lightship 82* sprang a leak during a big storm on Lake Erie. It sank. All the men aboard died. Over the years a total of 12 lightships sank, and 150 were seriously damaged in storms or accidents.

In 1920, lightships started sending out radio signals. They were meant to guide other ships. But sometimes they led ships right to the lightships. The other ships ran into them! The *Olympia* was as big as the *Titanic*. In 1934 the *Olympia* hit *Lightship 117*. This happened in dense fog off Cape Cod. The lightship was cut in half. Seven of its 11 sailors died.

Lightships are no longer used. Lighted buoys have taken their place. Now ships have a better idea of where they are at all times. They use global positioning systems (GPS). With GPS, a ship knows its exact location. And each ship's captain gets up-to-date information on underwater hazards by computer or radio.



Courtesy of the Library of Congress,  
"Light Ship," LC-DIG-ggbain-04043

# Lightships

On June 24, 1960, the *SS Green Bay* struck the U.S. Coast Guard Lightship *Relief*. This is a letter from a sailor aboard the *Relief*:

Dear Mom and Dad and all,

June 25, 1960

I wanted to give you more details about the collision we suffered yesterday. About 4:10 in the morning we were in dense fog. Suddenly the freighter *SS Green Bay* struck us with such force that we all fell to the deck. Those sleeping were thrown from their bunks.

We had a starboard<sup>1</sup> hole 12 feet long and 2 feet wide. We had no time to send an SOS or to save anything, even the logbook. Captain Tamalonis told us to abandon ship. Our motor lifeboat had been ripped away in the crash. Bobbie launched the self-inflating rubber life raft. The men who'd been asleep rushed to get their pants and wallets.

Bobbie put the ladder over the side, and I climbed down into the raft. The rest of the crew followed me. The *Relief* was already so low in the water that the Captain just stepped from the deck onto our raft! We paddled away as fast as we could. We feared that when the *Relief* went under, she'd take us down with her undertow. If she rolled over, her masts or rigging could hit us.

At 4:21 A.M. the *Relief* sank beneath the waves. She went stern first. It was hard to believe that so few minutes had passed since the *Green Bay* rammed her. All nine of us sat in silence. We all worried what would happen next since we were drifting in heavy fog in the Atlantic's busiest shipping lane. We heard the *Green Bay* drop anchor. But we couldn't see her through the fog. Her crew shouted to us. They sounded their horn and bell. We fired flares and yelled. We tried to paddle towards the freighter's sounds. But it was hard to get our bearings, as sound is dampened in fog. We just could not find the ship.

After about an hour in the lifeboat, a huge ocean liner appeared and almost ran us down. It was the *Queen Elizabeth*! She came so close we felt sure we were goners. Captain Tamalonis fired 30 flares. We blew whistles and shouted until we were hoarse. We read her name as she slowly moved by. Our life raft rocked wildly in her wake.

At last, around 5:30 A.M., a motor lifeboat from the *Green Bay* found us. What a welcome sight! It towed us over to the *Green Bay*. The freighter had not sustained much damage. About an hour later, a U.S. Coast Guard Harbor Entrance Patrol Boat arrived and took us back to the St. George U.S. Coast Guard Base. I was glad to step ashore.

I miss you all. Don't worry about me. The worst is past!

William

<sup>1</sup>the right side of the ship when one is facing it head on