

1

00:00:00,389 --> 00:00:30,359

This series presents information based in part

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00:00:30,359 --> 00:00:34,960

theory and conjecture. The producer's purpose is to suggest some possible

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00:00:34,960 --> 00:00:41,562

explanation but not necessarily the only one to the mysteries we will examine.

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00:00:41,562 --> 00:01:06,571

People have always been in awe of Mother Earth's most fearsome phenomenon, the volcano.

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00:01:07,571 --> 00:01:13,573

Some of the most majestic peaks of western America rise along the cascade range.

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00:01:13,573 --> 00:01:19,575

Deep within these peaceful looking mountains rumbles a power capable of devastating cities,

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00:01:19,575 --> 00:01:26,577

of destroying cultivated lands, of causing horrible deaths.

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00:01:26,577 --> 00:01:35,580

This unrecognizable landscape of devastation used to be Mount St. Helens.

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00:01:35,580 --> 00:01:39,581

Mount St. Helens is just one of many cascade volcanoes.

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00:01:39,581 --> 00:01:44,583

Which of these slumbering giants might awaken next?

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00:01:48,584 --> 00:01:53,586

The towering splendor that was Mount St. Helens.

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00:01:53,586 --> 00:02:01,589

For green slopes with a home for thousands of forest creatures, the refuge of nature lovers,

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00:02:01,589 --> 00:02:07,591

thousands hiked her trails, families camped beneath her trees,

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00:02:07,591 --> 00:02:13,593

lauders harvested her vast forests.

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00:02:13,593 --> 00:02:20,595

Vacationers came to fish along the banks of Spirit Lake, nestled high on the slope of the mountain.

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00:02:20,595 --> 00:02:27,597

The waters of Spirit Lake feed the Toodle River which winds down the mountain and through the valley towns below.

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00:02:27,597 --> 00:02:32,599

Towns which had never thought of danger from the volcano that loomed above,

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00:02:32,599 --> 00:02:40,601

until the spring of 1980 when the mountain began to heat from within.

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00:02:40,601 --> 00:02:44,603

Her shroud of ice and snow began to melt.

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00:02:44,603 --> 00:02:50,605

She began to shudder and swell, angrily belching forth steam and rock.

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00:02:50,605 --> 00:02:55,606

Then on May 18th,

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00:03:07,610 --> 00:03:13,612

it was one of the most powerful volcanic blasts ever recorded.

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00:03:13,612 --> 00:03:19,614

Over 200 square miles were destroyed.

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00:03:20,614 --> 00:03:27,617

The entire wildlife population was buried beneath billions of tons of ash and rock,

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00:03:27,617 --> 00:03:34,619

or burned to death by the incredible heat of the explosion.

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00:03:34,619 --> 00:03:40,621

Acidic ash rained from the sky, smothering the few trees left standing.

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00:03:41,621 --> 00:03:46,623

The icy blue water of Spirit Lake turned to boiling gray mud.

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00:03:46,623 --> 00:03:52,625

It surged over its banks, combining with the enormous volume of glacial melt.

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00:03:52,625 --> 00:03:59,627

This wall of water and mud raced through the bed of the Toodle River inundating the countryside below.

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00:03:59,627 --> 00:04:05,629

Devastating the water, the water was flowing through the river.

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00:04:05,629 --> 00:04:09,631

The Toodle River inundating the countryside below.

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00:04:09,631 --> 00:04:15,632

Devastating farms, homes, and lifestyles.

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00:04:15,632 --> 00:04:21,634

Mrs. Adrienne Johnson was with her family on the Toodle River the night the muds came.

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00:04:21,634 --> 00:04:25,636

When the mud started to come, which was in the evening around 7.00, 7.30,

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00:04:25,636 --> 00:04:30,637

it was incredible. You just couldn't believe that it would take everything.

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00:04:30,637 --> 00:04:34,639

It was like my husband said, you know, it will never get that high.

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00:04:34,639 --> 00:04:37,640

We stood on my girlfriend's deck and we watched.

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00:04:37,640 --> 00:04:42,641

And it was like Tassie. It would just come like waves.

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00:04:45,642 --> 00:04:48,643

It was terrible. You could hear these hooded sounds.

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00:04:48,643 --> 00:04:51,644

You could say, there goes the neighbor's house.

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00:04:52,645 --> 00:04:55,646

These two have neighbors here.

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00:04:55,646 --> 00:05:00,647

Now the only time that they come by is to see if they can salvage something.

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00:05:03,648 --> 00:05:06,649

There's solitude now. It is just devastation.

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00:05:06,649 --> 00:05:10,650

You get up in the morning and all you see is destruction.

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00:05:14,652 --> 00:05:20,654

The shipping channel of the Carlitz River now runs just 6 inches down the river.

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00:05:20,654 --> 00:05:27,656

It's just 6 inches deep in places, clawed with 1.5 million acre feet of mud and debris.

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00:05:29,657 --> 00:05:34,658

Nearly 500,000 fish died from suffocation and heat.

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00:05:38,660 --> 00:05:41,661

Hundreds of human lives might also have been lost,

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00:05:41,661 --> 00:05:45,662

were it not for the planning of people like Carlitz County Sheriff Les Nelson.

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00:05:45,662 --> 00:05:49,663

We started our action, of course, with this volcano.

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00:05:49,663 --> 00:05:54,665

Most people relate to it as being of May the 18th of marches

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00:05:54,665 --> 00:05:58,666

when this department had to start thinking about getting into action.

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00:05:58,666 --> 00:06:04,668

And because of the threat and the information that we received, of course, we were concerned about our people.

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00:06:05,668 --> 00:06:07,669

An evacuation plan was developed.

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00:06:07,669 --> 00:06:12,671

Warning brochures were distributed. The county went into action.

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00:06:13,671 --> 00:06:17,672

Inboulding these activities was under Sheriff William Stewart.

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00:06:17,672 --> 00:06:25,675

Prior to the eruption on May the 18th, we had set up several roadblocks into the dangerous areas around the mountain.

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00:06:26,675 --> 00:06:31,677

Warning people who came to those roadblocks that it was dangerous, yet they still went in

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00:06:31,677 --> 00:06:37,679

and we feel that a lot of the ones that are still missing are there because of ignoring our warnings.

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00:06:38,679 --> 00:06:43,681

Yes, people did die at Mount St. Helens. Many are still missing.

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00:06:44,681 --> 00:06:49,683

Luckily, though, there are no towns dotting her hillside or lying at her base,

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00:06:49,683 --> 00:06:53,684

like those at Mount Rainier, Mount Hood, or Mount Shasta.

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00:06:54,684 --> 00:06:58,686

How many lives might be lost when those mountains erupt?

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00:06:59,686 --> 00:07:06,688

When Mount St. Helens last erupted in 1857, her activity continued for 25 years.

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00:07:06,688 --> 00:07:10,690

This time, how long will her rumbling go on?

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00:07:11,690 --> 00:07:15,691

We're still on an alert where we're not comfortable.

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00:07:15,691 --> 00:07:22,694

My personal feeling, and that's all that I'm expressing here, however, based on some conversations with the geologists,

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00:07:22,694 --> 00:07:25,695

is that I think the mountain's going to blow again.

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00:07:25,695 --> 00:07:30,696

Maybe not in the magnitude, but I don't think that thing's ready to go back to sleep.

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00:07:31,697 --> 00:07:39,699

At centers for volcanic study like the University of Oregon, much knowledge has been gained.

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00:07:40,700 --> 00:07:47,702

Molten material is tested. Rocks are analyzed. Temperatures and measurements are taken.

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00:07:48,702 --> 00:07:52,703

But a real understanding of the volcano still eludes the scientists.

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00:07:53,704 --> 00:07:57,705

Noted volcanologist Dr. Alex McBernie of the University of Oregon.

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00:07:57,705 --> 00:08:08,709

Basically, a volcano is any vent to the Earth's crust by which molten material is able to rise to the surface and flow out.

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00:08:10,709 --> 00:08:17,712

There are many different types of volcanic activity, all closely linked, which correspond to distinct types of volcanoes.

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00:08:18,712 --> 00:08:25,714

Shield volcanoes are built up from very fluid magma, which escapes from a tubular vent and pours out in all directions.

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00:08:27,715 --> 00:08:33,717

The shield volcanoes of Hawaii often produce flows of lava, which cover everything in their path.

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00:08:35,718 --> 00:08:44,720

Stratovolcanoes include all volcanic cones formed by alternating lava flows and accumulations of fragmentary material,

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00:08:44,720 --> 00:08:47,721

such as black butte in Northern California.

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00:08:48,722 --> 00:08:55,724

The type of eruption that occurred on Mount St. Helens is the most deadly. It is known as a paleon explosion.

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00:08:56,724 --> 00:09:06,728

The activity that started in March at Mount St. Helens was not all together unusual for that type of volcano.

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00:09:07,728 --> 00:09:13,730

The same is true of Mount Rainier, for example. It's had a number of large eruptions this climb in the past.

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00:09:15,731 --> 00:09:22,733

You can't predict with any precision whether another eruption like this might happen elsewhere in the Cascades.

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00:09:23,733 --> 00:09:29,735

One of the things that we did learn in this eruption is that it's very dangerous to make any kind of predictions,

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00:09:29,735 --> 00:09:33,736

or even generalities on what a volcano might do.

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00:09:33,736 --> 00:09:40,739

You can say that something is not very likely to happen, and then sure enough, that's exactly what does happen,

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00:09:40,739 --> 00:09:43,740

and then everybody ends up calling you fool.

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00:09:44,740 --> 00:09:52,743

We find ourselves asking, would there be enough warning time to save homes and lives

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00:09:52,743 --> 00:10:00,745

when other Cascade volcanoes like the sleeping giant Mount Shasta begin to awaken from their deceptive slumber?

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00:10:01,746 --> 00:10:10,749

In 1883, Indonesia's Krakatoa erupted with an explosion considerably larger than this one recorded in 1927.

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00:10:12,749 --> 00:10:17,751

It was heard nearly 3,000 miles away.

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00:10:21,752 --> 00:10:29,755

One of the most devastating volcanoes of all time, Krakatoa claimed the lives of more than 96,000 people.

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00:10:31,755 --> 00:10:40,758

The volcano produced such large quantities of material that parts of the Indian Ocean became impassable.

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00:10:45,760 --> 00:10:50,762

In 1669, Mount Ethnet took the lives of 20,000 people.

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00:10:51,762 --> 00:10:58,764

Many more have died as she continues to destroy farms and villages.

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00:11:02,766 --> 00:11:08,768

In 1902, the city of St. Pierre was totally destroyed by neighboring Mount Pele.

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00:11:08,768 --> 00:11:24,773

30,000 people were killed as the result of a highly heated, hurricane-like blast estimated at 12,000 degrees centigrade.

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00:11:26,773 --> 00:11:30,775

An eruption of Mount Vesuvius destroyed the city of Pompeii.

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00:11:30,775 --> 00:11:35,776

Striking with such suddenness, it mummified her inhabitants.

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00:11:39,778 --> 00:11:50,781

How many more lives will be lost to these rivers of lava as they are released from deep within the bowels of the Earth?

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00:11:54,783 --> 00:12:02,785

The tropical paradise of the Hawaiian Islands is in reality the top of the greatest volcanic mountain range in the world.

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00:12:03,786 --> 00:12:12,788

Tourists come to these islands to peer into the very heart of the volcano, taunting its deadly force.

103

00:12:15,789 --> 00:12:21,791

The people of these islands have learned to coexist with this continual reminder of Mother Nature's power.

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00:12:22,792 --> 00:12:36,796

Do we know enough about volcanoes here or anywhere else in the world to be really secure, to be able to relax believing we would be warned in time, sure the volcano erupt with deadly force?

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00:12:38,797 --> 00:12:45,799

Scientists tell us that the cascade range of the American Northwest is a time bomb of volcanic activity.

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00:12:46,800 --> 00:12:51,801

These volcanoes may erupt within 200 years or two days.

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00:12:52,802 --> 00:12:54,802

Which one will next erupt?

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00:12:55,803 --> 00:13:03,805

The ethereal Mount Hood last erupted in 1801. Will her future activity bring death to hundreds of thousands?

109

00:13:04,806 --> 00:13:15,809

Mount Mazama was totally destroyed in her last eruption, leaving only the shimmering Crater Lake. When will the stillness of her waters be shattered from within?

110

00:13:17,810 --> 00:13:29,814

The Ice-laden Mount Rainier was last heard from in 1882. If she were to erupt tomorrow, what would happen to the populations of Seattle, Tacoma, Olympia?

111

00:13:30,814 --> 00:13:39,817

Mount Shasta, the mystery mountain of California, last erupted 200 years ago. Will she last another year?

112

00:13:42,818 --> 00:13:54,822

The area around Mount Shasta is a lush recreational region. Her slopes welcome skiers in the winter. The air here is clean. The fishing is great.

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00:13:55,822 --> 00:14:04,825

The hunting is some of the best. And the risk of death by a volcanic eruption is far greater than at Mount St. Helens.

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00:14:06,826 --> 00:14:10,827

Yet people seem to have balanced this risk with the joys of living here.

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00:14:11,827 --> 00:14:16,829

12,000 people make their homes in the towns that lie in the shadow of Mount Shasta.

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00:14:17,829 --> 00:14:30,834

When Mount Shasta erupts, scientists predict with certainty that these towns will be devastated. The towns of Weed, Mount Shasta, McLeod, and Dunsnewer.

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00:14:31,834 --> 00:14:37,836

The inhabitants of these towns have come to accept this situation and have developed emergency plans.

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00:14:38,836 --> 00:14:48,840

What if Mount Shasta were the next to erupt? Would its beauty be destroyed, leaving a path of desolation like that of Mount St. Helens? How many lives would be lost?

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00:14:49,840 --> 00:14:55,842

Would the people of the neighboring towns at the very base of Mount Shasta be warned in time to escape?

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00:14:56,842 --> 00:15:07,846

Here, in a simulated evacuation created for our in-search-up cameras, residents and officials of the little town of Mount Shasta demonstrate what might happen when the mountains spring to life.

121

00:15:09,846 --> 00:15:16,849

The resort town of Mount Shasta appears peaceful enough, but it lies in the path of potential destruction.

122

00:15:17,849 --> 00:15:23,851

How will this picture change if the volcano that looms above it begins to heat up?

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00:15:26,852 --> 00:15:31,854

Advised to begin evacuation, the National Guard will be called in by the Governor.

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00:15:33,854 --> 00:15:37,856

Federal agencies will stand by, ready to add their support.

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00:15:44,858 --> 00:15:48,859

Local officials will put their well-reversed evacuation plans to work.

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00:15:49,859 --> 00:15:51,860

The GSA said the mountain's going to go.

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00:15:51,860 --> 00:16:16,568

The

128

00:16:21,870 --> 00:16:34,514

Equipped with special maps of the region, pinpointing farms and mountain residences, the California

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00:16:34,514 --> 00:16:39,716

Highway Patrol will join forces with local officials in an effort to evacuate surrounding

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00:16:39,716 --> 00:16:41,836

rural and recreational areas.

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00:16:41,836 --> 00:16:49,079

Officials here are equipped to move swiftly into these locations.

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00:16:50,039 --> 00:16:53,800

These vast regions are often filled with campers and hikers.

133

00:16:53,800 --> 00:16:57,242

People they fear may be unable to hear the warnings.

134

00:17:20,049 --> 00:17:28,052

The towns of Weed, Monchasta, Dunsviewa and McLeod have long been aware that this could happen at any time.

135

00:17:28,052 --> 00:17:34,614

Local leaders are confident that their residents can be evacuated without incident.

136

00:17:34,614 --> 00:17:48,058

National Guard members will comb the streets on foot in order to locate any stragglers or children who may have been separated from parents and move them to evacuation centers outside the danger zone.

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00:17:50,059 --> 00:17:56,461

If all goes as planned, the warnings will be heeded.

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00:17:56,461 --> 00:17:59,262

The streets will be deserted within hours.

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00:17:59,262 --> 00:18:07,264

An eerie stillness will hang over the empty town as it waits for the inevitable.

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00:18:20,069 --> 00:18:26,071

No, it hasn't happened yet.

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00:18:26,071 --> 00:18:28,071

Monchasta still stands.

142

00:18:28,071 --> 00:18:34,073

The eruption you just saw was created by our in search of teams for the use of a model.

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00:18:34,073 --> 00:18:40,075

Still, some scientists believe that Chasta may be the next of these slumbering giants to awaken.

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00:18:40,075 --> 00:18:42,076

How can we predict when it will happen?

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00:18:43,036 --> 00:18:53,039

The seismograph gives scientists an indication of volcanic activity, but it has not proven to be an accurate tool of prediction.

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00:18:53,039 --> 00:18:57,041

Volcanologists are developing the magnetometer.

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00:18:57,041 --> 00:19:01,042

They feel this instrument's predictive accuracy can be proven.

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00:19:01,042 --> 00:19:07,044

However, will magnetometers be distributed throughout the cascade range in time?

149

00:19:08,004 --> 00:19:16,007

With all of their machinery and knowledge, scientists were unable to predict Mount St. Helen's eruption.

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00:19:16,007 --> 00:19:22,009

Perhaps there is another predictive tool that should be explored, the human mind.

151

00:19:22,009 --> 00:19:28,011

With her sensitivity to harmonic tremors, Charlotte King displays an amazing accuracy.

152

00:19:28,011 --> 00:19:34,013

I started out with a severe migraine headache, which I've had since the 18th of March.

153

00:19:34,973 --> 00:19:40,975

And ever since that time element, the pain has increased and decreased with amount and activity.

154

00:19:40,975 --> 00:19:46,977

And prior to the 18th, on the Friday before, the pores on the back of my hands opened up

155

00:19:46,977 --> 00:19:49,978

and I had bleeding in the capillaries on my hands and my cheeks.

156

00:19:49,978 --> 00:19:51,979

I had a severe headache.

157

00:19:51,979 --> 00:19:54,980

I was beginning to tilt a little bit to the left of my body.

158

00:19:54,980 --> 00:19:56,980

I was having trouble maintaining balance.

159

00:19:56,980 --> 00:20:03,983

And when the evening of the 17th arrived, I got up to turn the TV station about eight o'clock.

160

00:20:03,983 --> 00:20:05,983

And I was walking right into a wall.

161

00:20:05,983 --> 00:20:10,985

At that point, I made a phone call to the TV station and told them it would go within 12 hours.

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00:20:10,985 --> 00:20:14,986

12 hours and 12 minutes later, the eruption of May 18th occurred.

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00:20:14,986 --> 00:20:20,988

As we watched, our in-search of cameras captured one of Charlotte's remarkable experiences.

164

00:20:20,988 --> 00:20:25,990

Something must be happening on the mountain right now because the pain is very intense.

165

00:20:25,990 --> 00:20:30,991

It's coming in ways. This is the type of pain I've had with the harmonic tremor.

166

00:20:30,991 --> 00:20:33,992

And it comes on very suddenly like that and hits very hard.

167

00:20:34,993 --> 00:20:39,994

At that exact moment, 10.56 a.m. June 25th,

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00:20:39,994 --> 00:20:44,996

tremor activity was confirmed by the United States Geological Survey.

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00:20:46,997 --> 00:20:54,999

Will we be forced to rely on Charlotte King to tell us when Monshasta or other cascade volcanoes

will erupt?

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00:20:56,000 --> 00:21:02,002

We attempt to understand the phenomenon of the volcano in scientific terms.

171

00:21:04,002 --> 00:21:11,004

Yet even in today's world, the Native American's understanding of the ways of nature may prove the more accurate.

172

00:21:12,005 --> 00:21:15,006

Cowlitz Indian tribal chairman Roy Wilson.

173

00:21:17,006 --> 00:21:24,009

Today as we hear the rumbling of Mount St. Helens, we hear the spirit of the mountain.

174

00:21:25,009 --> 00:21:30,011

Speaking to us of Mother Earth's concern for the life that she sustains.

175

00:21:32,011 --> 00:21:42,015

The spirits of our own departed who were buried on the mountain are coming back in spirit retribution against the white men

176

00:21:42,015 --> 00:21:48,017

who desecrated our graves, who denuded the mountain with clear-cutting the forest,

177

00:21:48,017 --> 00:21:53,018

diving up the rivers and covering the sacred places.

178

00:21:54,019 --> 00:21:56,019

We hear the spirit of the mountain.

179

00:21:57,020 --> 00:22:02,021

Speaking out that unless we change our ways, there will be greater destruction.