

Five Minutes of Terror: USCG Response in the 1964 Alaskan Earthquake

by Ms. Beth Crumley, USCG Historian • 20 March 2021

The land turned to liquid. A long slice of the seaward edge of the plain...-a section nearly a mile long and as much as six hundred feet wide-compacted, slumped, and then slid into the bay...those on the dock ran for safety along the earthen causeway that led to shore, only to be stopped when a huge fissure opened in front of them. As the land they were on collapsed, men tumbled into the water, grasping for anything-timbers, boxes, debris-to stay afloat. One clung to the side of the fissure before he too, fell in. In the water, some of the victims were caught in a whirlpool of water and debris....It was as if the earth were swallowing everyone....

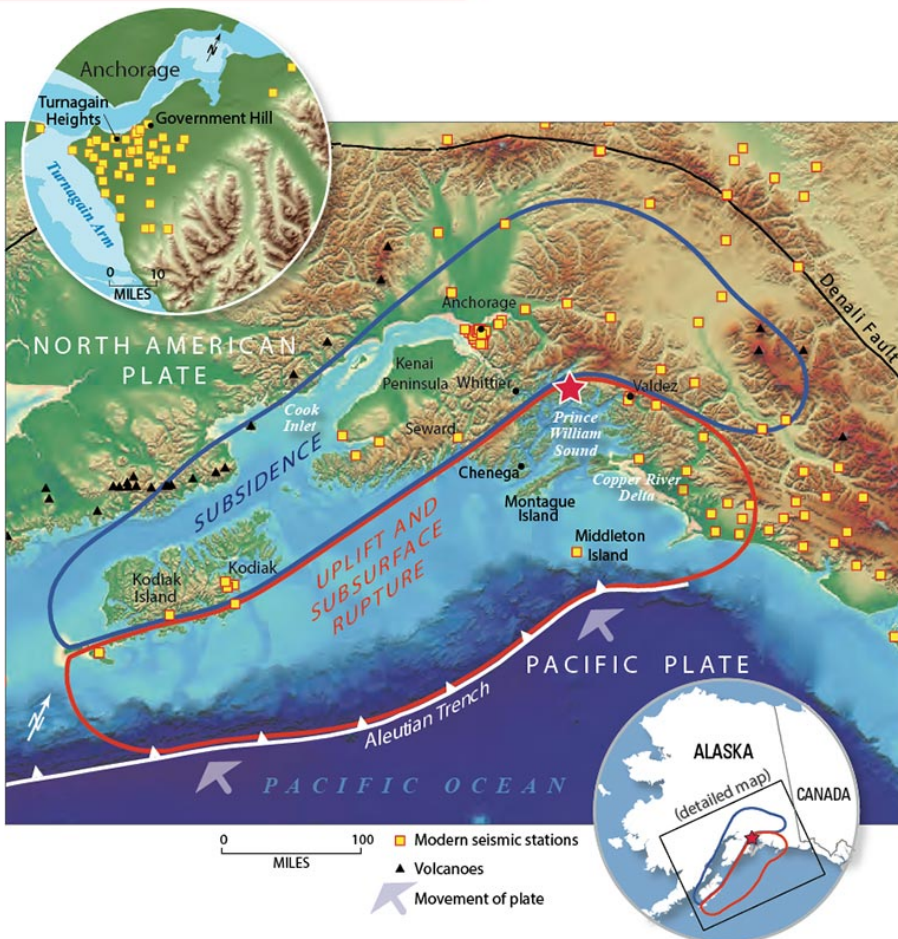
Henry Fountain, *The Great Quake*

On 27 March 1964, at 1736 AKST, the strongest earthquake ever recorded in North America struck southern Alaska. Lasting almost five minutes, the 9.2 megathrust quake occurred when the Aleutian Fault ruptured near College Fjord in Prince William Sound, 74 miles east of Anchorage. There, where the Pacific Plate subducts the North American Plate, six hundred miles of fault were torn asunder. Soil liquefaction, ground

fissures, structural collapses and tsunamis devastated the area and caused the death of 131 individuals.

In the city of Anchorage, the movement of the earth was gentle at first, a slight rumbling and rolling. Instead of subsiding, however, the movement became much more violent. The earth heaved and fell as shock waves rippled, accompanied by a deep roar. Author Henry Fountain described the devastation:

The seismic stresses caused cracks to open in the ground all over southern Alaska. Some of these grew larger and larger as the shaking continued. They opened and closed as the waves rolled through, forcing liquids into the air as they did. The effect in some places was like a choreographed fountain-curtains



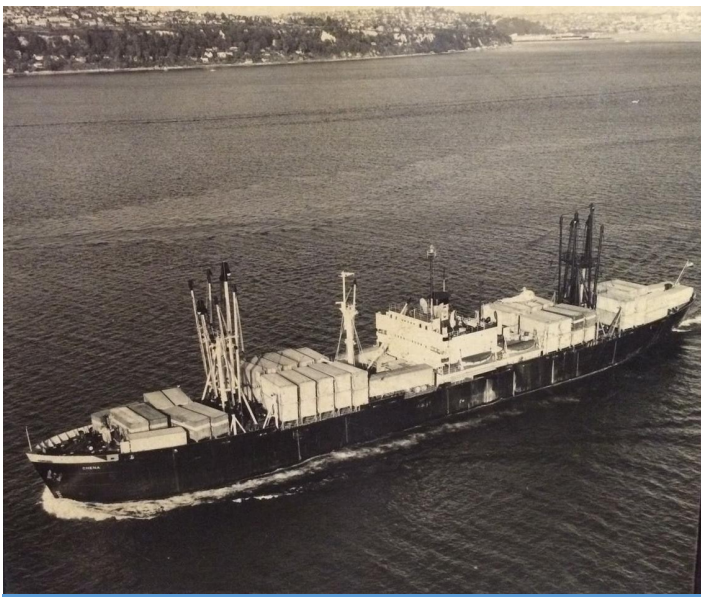
of mud up to fifty feet high and one hundred feet long, spewing for a few seconds as the trough of a wave passed and the ground closed up, then stopping as the crest followed and the ground opened up again.

Streets became waves as parts of Anchorage dropped as much as thirty feet. In the area of Turnagain, on a bluff overlooking Cook Inlet, two hundred acres of earth moved as much as two thousand feet toward the water. An entire neighborhood disappeared as the land slid into the sea.

On that fateful afternoon of 27 March, the waterfront in the town of Valdez, located 119 miles east of Anchorage, was abuzz. One of the Alaska Steam Company's converted Liberty ships was due to arrive on a regular cargo run from Seattle. Carrying much needed supplies, families gathered in anticipation. Since it was Good Friday, there had been no school. Children waited eagerly as crew members might throw candy to those on the dock. The ship's cook might hand out oranges and other fruits. Men gathered on the docks, hired as longshoremen to unload the *SS Chena*. The ship steamed into Valdez shortly after 1600 AKST, with a crew of 39, under the command of Merrill D. Stewart.



Cracks along Seward Highway, near Turnagain



SS CHENA Freighter

According to eyewitness Gloria Day, as the earth began to heave and ripple, buildings rose and fell. To her right, she saw the *Chena*, rising at a sharp angle, bow down, her propellers visible. Aboard, Captain Stewart was eating when he felt the impact of the quake. As he reached the bridge, he witnessed a huge swath of land compact, slump and slide into the bay. The docks, warehouses, and canneries of Valdez disappeared, sweeping away men, women, and children. The chief engineer saw men running, only to be stopped by a huge fissure that swallowed them. Those still alive were forced to make their way through pools of mud and waste as the town's sewer system erupted into geysers of filthy liquid.

What wasn't destroyed by the heaving of the earth was essentially leveled by the ensuing tsunami. A submarine landslide caused a maelstrom in the harbor, sucking *Chena* down, then slamming the ship repeatedly into the harbor. The Union Oil company tanks, situated on the waterfront, ruptured, igniting a massive fire. A wave two hundred feet high smashed into Shoup Bay near the Valdez inlet. While *Chena* survived, twenty-eight people died within a few short minutes.

The situation in the village of Chenega was equally disastrous. Located on a small island in Prince William Sound, in what has been described as “beautiful isolation,” Chenega was home to sixty-eight people. The island was characterized by steep hills rising from the sea, studded with evergreen trees. The village itself was located on a small cove, built on a hillside. A Russian Orthodox Church sat at the center of the village. A small schoolhouse was located at the top of a small hill.



Massive destruction at a remote island village in Prince William Sound

Friday morning, 27 March, dawned cool and overcast. In the schoolhouse, teacher Kris Madsen prepared for the day. It was movie night in Chenega. The feature was *The House on Haunted Hill*. She and a friend cleared away desks in the schoolhouse to make room for chairs and a screen then went to fetch water from a nearby pond. When the earth started to shake, she looked towards the cove. She saw the water receding, then disappear, revealing a canyon more than 120 feet deep. The first wave arrived less than a minute into the quake. Two minutes later a second wave, thirty-five feet in height, crashed into Chenega, leveling the village and reaching just below the schoolhouse. The waterfront, most of the homes, and the church were simply gone. When the water receded, little was left except a field of debris which filled the cove and extended as much as five miles into the Sound. Those who survived, many injured and in shock, huddled together on a hilltop. Twenty-six people, including thirteen children, more than one third of the village’s population, were dead.



The Town of Seward

In the town of Seward, spilled oil covered the water and caught fire, then was pushed back ashore by the ensuing waves. Said one survivor, “It was an eerie thing to see—a huge tide of fire washing ashore.” Radio traffic reported fuel tanker “SS *Alaska Standard* reports the whole waterfront in Seward is afire and if a CG cutter is nearby, might be able to help.”

In fact, Coast Guard assets in the earthquake zone had taken considerable damage. LORAN Station Sitkinak reported “LORAN

out of operation. Repair time unknown, probably days at best. Water main and electrical cable broken. 5 inch and more cracks in most walls. Deck settled 3-6 inches in some section of station. Antenna still stands.”

Coast Guard Light Station Cape Hinchinbrook reported, “1735W Had severe earth tremor. Evacuated building. Tremors can still be felt every ten to fifteen minutes. Loud noises can be heard. Believed to be....Now leaving station again. Will be back when shaking stops.”



Damage in Seward

due to broken pipes....No electrical power in barracks heating system....Two of three cisterns cracked...Transformer in transmitter building burned. Fire extinguished. Main building foundation settled 5 inches. Interior walls seriously cracked and serious safety hazard. Cracks up to 10 inches wide. CPO and ward area sunk 5 inches and flooded with 1 inch muddy water. Galley deck buckled. Station force effecting repairs within ability. Resumption of LORAN signal is top priority.”

Personnel at Light Station Cape Hinchinbrook requested, “Advise the district that we can’t stay in this building any longer. We are getting bad shakes every 10 or 15 minutes and the whole island is shaking. We will be back as soon as it stops.”

The SS *Chena* survived the pummeling in Valdez harbor and radioed “The town of Valdez, Alaska, just burst into flames. The whole dock is afire and the tanks at Union and the other docks have started to burn.”

Cape Hinchinbrook further reported, “It sounds like the cliffs are falling on top of the island...There is an awful roar coming in from the sea now.”

Despite the confusion amid the unfolding disaster, radio traffic

On the south end of Kayak Island, EN3 Frank O. Reed was photographing wildlife when the quake hit. Falling rocks left him with a broken leg. Three of his colleagues attempted to rescue him but were hit by the wave. District Seventeen was notified of loss of personnel. “Tidal wave hit this unit. Reed, Frank O. EN3 killed during wave. Drowned and washed out to sea. Damage to station grounds light. Will attempt to repair.” That was soon followed by a second report, “Evacuated Station. There have been three waves hit this area.” Reed’s body was not recovered.

The situation worsened for LORAN Station Sitkinak. “Small tremors still occurring. No water pressure at station



Tsunami damage at Valdez

reported Coast Guard response was underway, “*Sedge* enroute to Valdez. *Bittersweet* enroute Seward. *Storis* and *Sorrel* proceeding towards Prince William sound. *Minnetonka* remaining Cape Sarichef area. Urgent broadcast for all vessels proceeding nearest villages and assist and report.”

In a 2007 interview, LT Peter Corson stated,

I was in my house in Cordova eating dinner when the quake struck. Our house came almost completely off the foundation. I ran down to the dock. It had split in half and was heaving back and forth. We had to wait until the gap closed before jumping across it to get to *Sedge*.

According to Corson, *Sedge* was at “Charlie condition,” the engines down for maintenance. Ordered to Valdez, the crew scrambled to get underway. While transiting Cordova’s, 60 foot deep shipping channel the water began to drop. *Sedge* came to rest on the bottom of the channel. Radio traffic reported, “We are aground in the middle of Kodiak Channel. “ Ten minutes later, water rushed back into the channel. *Sedge* reported, “We are afloat and underway to Valdez. No apparent damage.”

It wasn’t long before *Sedge* reported “Town of Chenega destroyed, Half of population missing. They require assistance badly.”



Downtown Anchorage

The Air Detachment at Kodiak was also not spared. One of the maintenance crew recalled water rushing repeatedly into the hangar as they scrambled to evacuate the aircraft. "Hangar flooded several times to maximum depth of six feet. Estimate severe damage to all shop and most electrical equipment. In addition, considerable settling of ramp area may make hangar inaccessible for aircraft until temporary repairs can be effected. Supply building also flooded to lesser depth. No power, no heat available. Water appears to be returning to service. Can maintain some aircraft availability dependent on discrepancies that occur." In fact, all the aircraft were safely evacuated and considered operational. A C-123 suffered salt water emersion to the level of the floor boards. Three HU-16s successfully departed to survey damage on Kodiak Island, the east coast of the Kenai Peninsula to Cordova, and Cook Inlet.



Damage in Kodiak

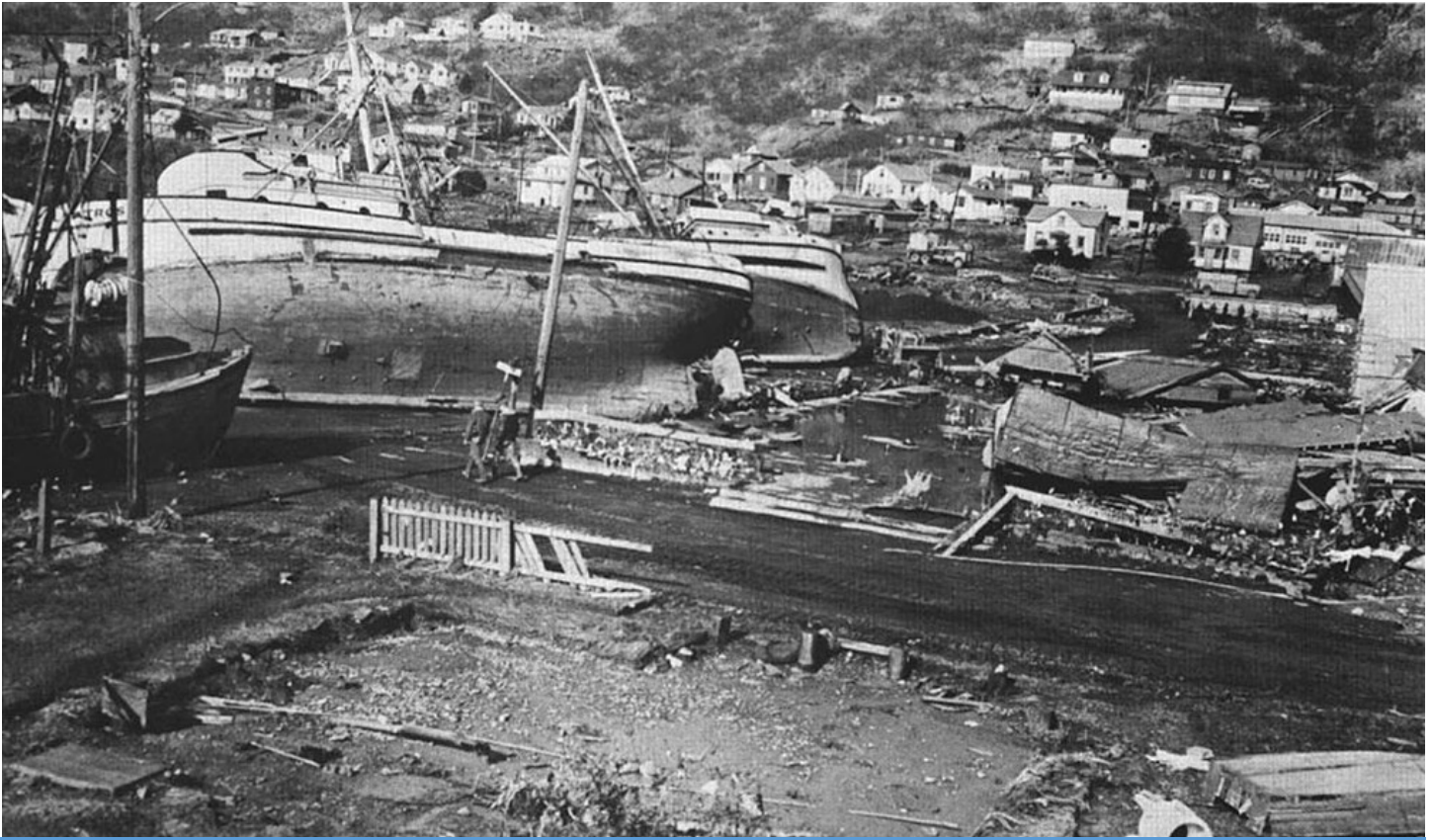
Coast Guard aircraft 1271 was conducting damage assessment. The pilot reported severe damage in Seward, "Estimated 50 houses destroyed. All dock area destroyed. All railway yard damaged. Oil tank still burning. No communications." Strangely enough, he reported only three damaged buildings in Chenega. Perhaps he was unfamiliar with the village and saw the wide swath of beach, unaware that the homes and church that had stood in that area were gone. The questions remain as to why the pilot failed to see the cove and passage choked with debris.

Those stationed at Cape Hinchinbrook were still on edge. "Tremors still felt every 2 to 3 Minutes and also loud noises from all parts of the island. Request advise if these tremors are felt in other areas. It sounds and feels like the island is trying to push up in the middle." Shortly thereafter, the light station reported, "Conditions remain the same as stated. Meadow and hill approximately ½ mile east of station shows approximately half of hill and meadow fell to a depth of approximately 500 yards. Meadow shows crack and seems to still be slipping unto the sea. Station personnel are getting worried as OIC cannot explain continuing earth tremors and loud noises."



Cutter SEDGE enroute Valdez

The cutter *Sedge* reported Valdez was attempting to complete evacuation by road of about 1,000 persons. "Erratic tides grounded *Sedge* power boat. Undamaged. Slight tremors are still felt. SS *Chena* and *Sedge* standing by to determine success of evacuation attempt." Upon the arrival of Brigadier General Lipscomb, US Army, it was determined that the evacuation could commence by road and completed without ship's assistance. The *Sorrel* reported she was proceeding to Chenega to survey damage and render whatever assistance possible.

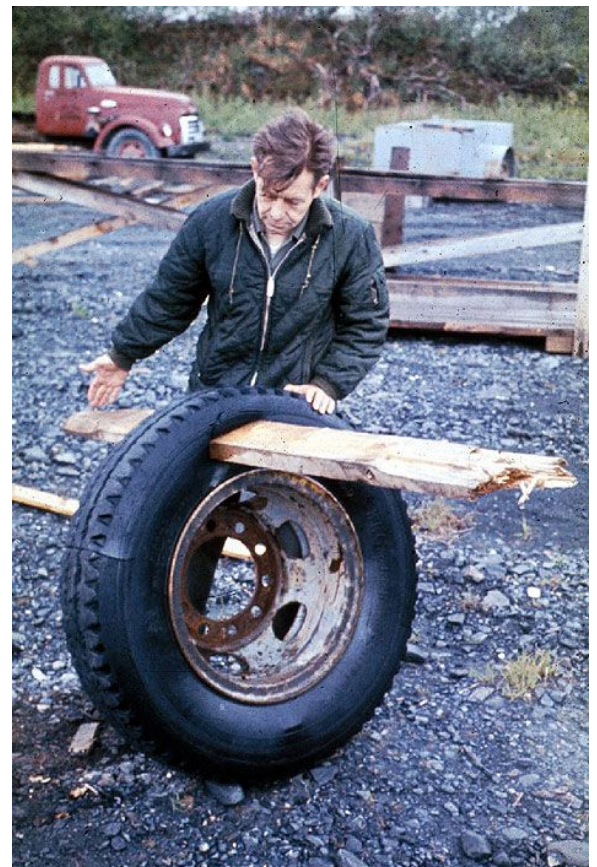


Upended vessels deposited far inland at Kodiak

At AirDet Kodiak, it was determined that while aircraft remained operational, essentially all of the tools and equipment were unserviceable. The hangar was deemed unsafe and it was reported, “No estimate can be made of return to normal operations. Expect at least several weeks. Believe can maintain capability required to handle present emergency.” In fact, Coast Guard aircraft had been actively surveying damage, and HU-16 5848 successfully evacuated stranded personnel from Long Island and from Bell’s Flats. The aircraft also located seven bodies in Kalsin Bay.

After two days of being repeatedly shaken, Cape Hinchinbrook received the following message from Rear Admiral George D. Synon, Commander District Seventeen:

1. I am fully aware of the hard and perilous situation now being faced by you and your crew. I am proud of the courage you have shown thus far and of the efforts you have made to keep essential equipment operating.
2. Please inform all hands that I am confident under your leadership they will continue to display the bravery and devotion to duty which are always the mark of Coast Guardsmen in the face of danger.



Evidence of the powerful force of rushing water.



U.S. Government surveys of damage

Despite the admiral's words of encouragement, the situation at Cape Hinchinbrook further deteriorated. Due to several heavy tremors in an hour, the decision was made to evacuate personnel to a hill behind the station. They reported, "Will check on radio periodically. Equipment will be left operating and also checked periodically." Shortly thereafter, *Sedge* was ordered to evacuate Light Station Cape Hinchinbrook personnel. Orders were given to "Shut down all equipment and secure building and material just prior to departure providing crew is not endangered while doing so."

Within two minutes of the earthquake, the Alaskan NORAD Command Center, located on Elmendorf Air Force Base, became the focal center for damage assessment, response, and subsequent recovery efforts. President Johnson declared Alaska a major disaster area on 28 March. The days immediately following the earthquake were described as a "blur," punctuated by moments of fear and scenes of chaos and devastation. Despite damages to a number of Coast Guard assets, it is clear that those assigned to those assets endeavored to work through the chaos, keep their units as operational as possible under very difficult circumstances, and to offer help where needed. Their experiences serve as a fine example of *Semper Paratus*, Always Ready.



SEMPER PARATUS ALASKA