

At Telukdalam, southern Nias.

Saturday, 15 January 2005. Alimin, a 52-year old guy who was one of the three who delivered our fuel by truck from Telukdalam, lives on the waterfront in T.Dalam, in the silver-roofed house in photo IMG_1776. He was in his house when the water rose into it. He says the water rose 1.3 (to his chest) above the floor in his house. The floor of his house is 2.5 meters above low tide. This suggests that the amplitude of the highest surge was about 3.8 meters. During the recessions of the sea, the floor of the bay was completely high and dry out to 50 meters from the shore. He and Ama Pipir's son, Handy, estimate the drop was 6 to 7 meters below sea level! At the time of the tsunami, the sea was near low tide. Handy and his friend here, Herman, were on Ama Pipir's squid boat (in the photo), when the tsunami happened. The boat sank down with the water and came to rest on rocks. They scrambled out and made it to shore before the next surge.

They felt the earthquake Sunday at about 8:30 and say that it lasted about 5 minutes. The first regression of the water began at 10 am. The water did not come back up until 11:30 am. Then there were many oscillations, which didn't stop until night time. The biggest surge was at 2 o'clock in the afternoon.

At Sirombu, central west coast of Nias island

Sirombu is a town that has the unfortunate geographic peculiarity of being strung out in a narrow band on the thin band of land that runs out from the main island coast to a rocky headland on the central west coast of Nias island. It was hit by waves from both the north and the south. Yamo, a resident of Sirombu, who was in Gunungsitoli at the time of the disaster, says that his family member, Fauzi, rode out the tsunami surge in the second floor of his home and is a reliable eyewitness. He says that the waves that hit in the morning were much smaller than the one that hit in the afternoon. The morning surges alerted everyone to leave the village. So, when the big wave came at 4 pm, only 8 people were killed. It is peculiar that the big afternoon wave did not come from the north, directly from direction of the megathrust rupture. Instead it hit the south-facing beach. This and the late afternoon arrival must mean that the tsunami reflected off of eastern India and Sri Lanka and came back to the Indonesian islands.

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Three km north of Sirombu, at Mandrehe, where the coastline runs about north-south, the deadly wave that killed 113 hit in the morning.

At a village south of Salur village, southern west coast of Simeuleu

Sunday, 16 January 2005. At village south of Salur on southwest coast of Simeuleu island, 55-year old Zamzami tells us that his grandmother told him that

in 1907 the tsunami was 13-15 meters high, and that if he ever felt a strong earthquake and saw the water withdraw from the beach to run to the hills. That is what he and his wife did last Dec 26th.

The earthquake lasted about 5 minutes. It began weak but steadily increased in strength until they couldn't stand. Then it gradually subsided. The withdrawal of the sea began a half hour after the earthquake. Danny and I measured the height of the highest water on the inside of his house. (Danny's GPS station #29; N2°26.024', E96°15.515'). This occurred during the third, fourth and fifth waves, which arrived about a half hour after the first wave. It was 2.6 meters above the tide level at about 2:30 today. Z. says this is about the level of the sea just before the tsunami. The watermark on the wall (photo IMG_1958) is 70 cm lower and represents a level that was maintained for about 6 hours beginning about 6 hours after the surges began.

Another measure of the height of the tsunami was a strand of vegetation stuck on a palm tree near the shoreline. It was 2.05 meters above current water level, which would represent a minimum height for the highest surge.

At the southern entrance to Salur village, a km or so farther north (Danny's GPS waypoint #32; N2°26.565'; E96°14.674'), the tsunami was similar. Yugun Matsujan showed us where the high-water mark was on the mosque before he cleaned it off (Photo IMG_1973 and others). I measured with my handlevel from the current water level on the beach (about mean tide) and found the watermark was 2.45 meters high.

Submergence at Salur appears to be at least 30 cm, based upon flooding to that depth at the landward edge of the backbeach.

19 Jan 2005. Mark Coleman at Batang Arau Hotel on 19 January 2005. He saw me at Sirombu, but couldn't get my attention. At Sisawahihii, 10 km north of Sirombu, at a river mouth, 89 people died in the church, where they went after the earthquake. Those of the 300 villagers remaining were working in the plantation and survived. An old man was sitting in the devastation crying, not knowing where his home or belongings were.

Mark says villagers say the beach is now way under water at the river mouth, with trees in the water.

I wonder if there was a slow slip event outboard on the megathrust.