

## The reflective south going current, accompanied by the third wave of Tsunami at Iioka , Asahi City , Chiba Prefecture in 2011.

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### 1. The Group of Recording for Tsunami Damage of Asahi City in 2011

Shortly after the third wave of tsunami had gone to the north, Iioka was attacked abruptly by the south going current, which caused the disaster. The question is why the south going current occurred. The purpose of this thesis is to explain this issue.

After the disaster, we soon began to visit all the houses along the coast of Asahi City for interviews, and gathered about 650 personal experiences and eyewitness accounts. We found some of them very important. The summary is as follows.

**When the third wave of tsunami reached the north coast of Iioka , it was reflected slightly eastward . Then the reflected current went down south along the seawall of west coast of Iioka. After a while, the south going current ran against the succeeding north going current that belonged to the third wave of tsunami. As a result of that collision, the wave height of south going current was increased so much that the wave got over the seawall and destroyed the houses from north to south.**

By oblique mono photogrammetry, we calculated the strikes of the wave planes of south going current, and made a wave plane map, which we think proves the eyewitness accounts mentioned above to be right.

A TV program said that *the south going current was the edge wave of the first wave of tsunami*(April 9, 2014 FNN), but we don't think it is the case. After the first wave of tsunami had gone, the tidal wave went far off the shore, leaving no seawater along the north coast of Iioka. The large area of the sea floor was visible. It is clear that no edge wave of the first wave stayed there.

**Conclusion** The south going current was not the edge wave of the first wave of tsunami. It was the reflective current of the third wave of tsunami.

**Reference** Mitsuo Harukawa(2013) Maps and speeds of Tsunami measured by oblique mono photogrammetry with video image in Asahi City , Chiba Prefecture (JGUMeeting2013HDS26-15)

Keywords: strike of wave plane, photogrammetry, reflective wave , Chiba Prefecture, Asahi City, Iioka

