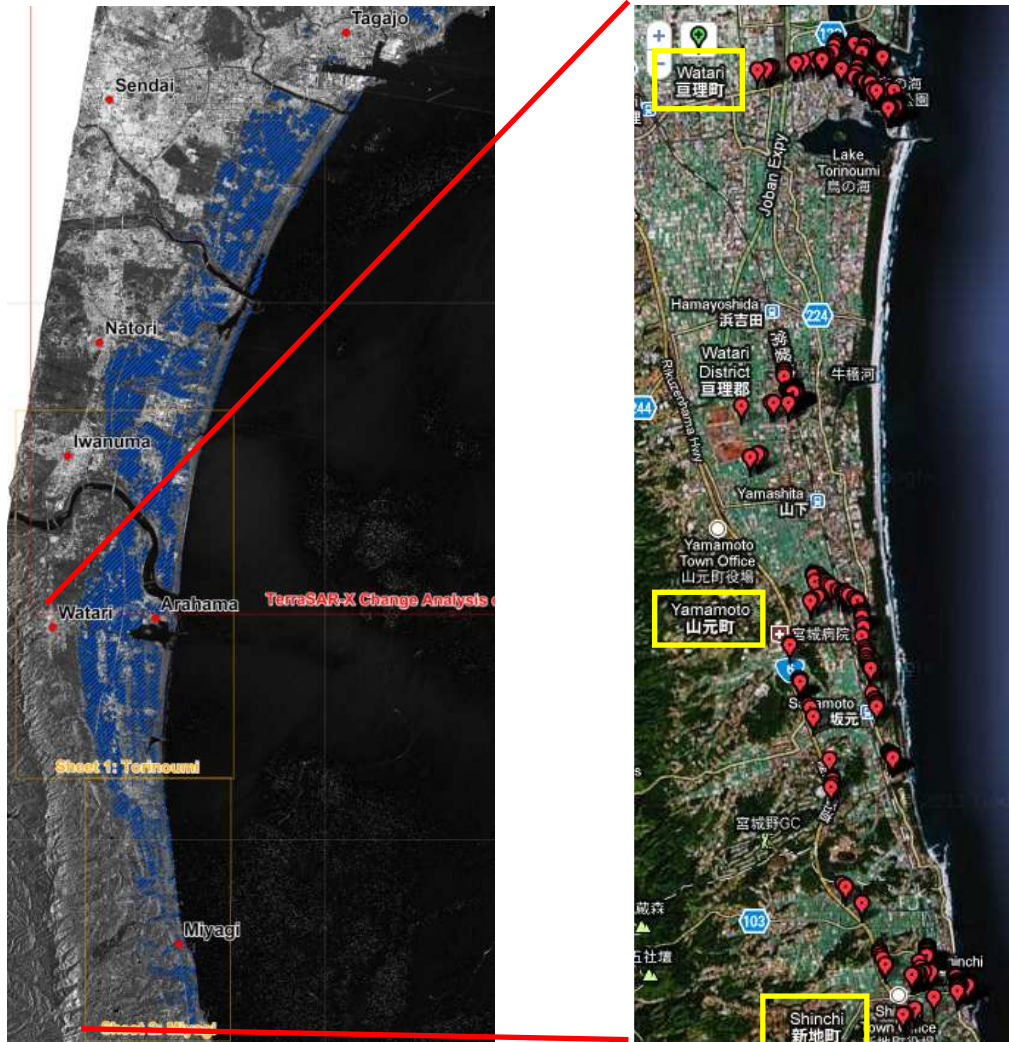


6/4/ 2011 (Wed)

Field survey in Shinchi town, Yamamoto town and Watari town



Conclusions

Shinchi town

- ❖ Tsunami height = 15.42 m
- ❖ Damaged: buildings, seawall, JR train and station and severe land scouring

Yamamoto town

- ❖ Tsunami height > 10 m
- ❖ Flow depth at 1.7 km from shoreline = 1.85 m
- ❖ Damaged: buildings, seawall, cargo trains (15 cars = 75 containers) and severe land scouring

Watari town

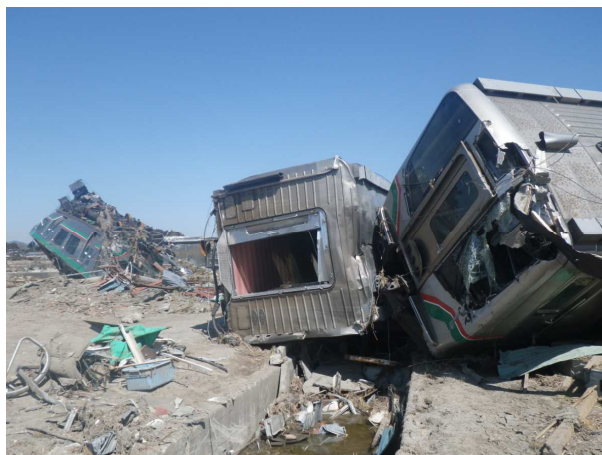
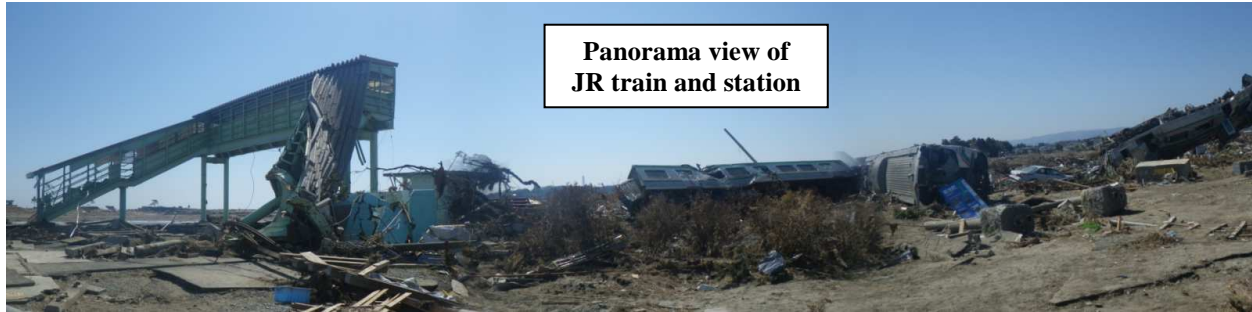
- ❖ Tsunami height = 8.6 m
- ❖ Damaged: buildings, fishing boats, seawall and large sand deposition

Shinchi town (Fukushima Prefecture)



Information from eyewitness

- ❖ No evacuation drill in this location → different from a town in Miyagi prefecture
- ❖ Receding of sea water about 20-30 min after the shake
- ❖ About 10 min for the first inundation
- ❖ Some tetrapods dislocated by both the attacking and drawn back wave
- ❖ Tsunami overtopped the 4 m height of seawall
- ❖ 2010 Chile tsunami height was 60 cm
- ❖ Strong shake → could not stand





Type: two-story RC frame
 Function: Shinchi fishery cooperative
 Flow depth: higher than 11 m (overtopped)
 Damage: roof, punched wall and severe scouring at foundation
 Location: Latitude = 37.874722 and Longitude = 140.935670



Type: four-story RC frame
 Function: unknown
 Flow depth: 15.42 m
 Damage: punched wall
 Location: Latitude = 37.872899 and Longitude = 140.935009



Yamamoto town (Miyagi Prefecture)

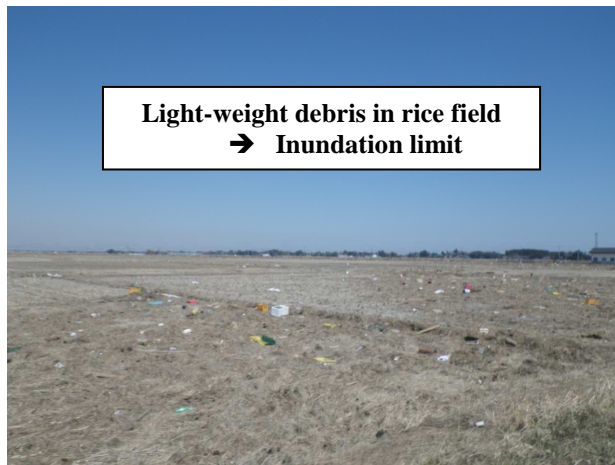




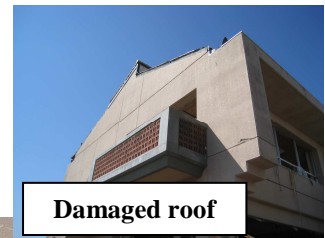
Type: one-story wood frame
 Function: residence house
 Flow depth: 1.77 m
 Damage: punched wall and damaged in some columns
 Location: Latitude = 37.984185 and Longitude = 140.893562



Type: two-story wood frame
 Function: residence house
 Flow depth: 1.94 m
 Damage: no structural damage
 Location: Latitude = 37.983961 and Longitude = 140.893869







Damaged roof

Scouring

Type: two-story RC frame
 Function: Nakahama primary school
 Flow depth: higher than 10 m (overtopped)
 Damage: punched wall and scouring at foundation
 Location: Latitude = 37.916578 and Longitude = 140.917941



Type: one-story RC frame
 Function: unknown
 Flow depth: higher than (10 m)
 Damage: roof and punched wall
 Location: Latitude = 37.915652
 Longitude = 140.918064

Watari town (Miyagi Prefecture)





Type: six-story RC frame
 Function: Watari spa Tori no Umi hotel
 Flow depth: unknown (broken window glass until second floor)
 Damage: no structural damage
 Location: Latitude = 38.036667 and Longitude = 140.919089



Type: two-story wood frame with RC column
 Function: Residence house
 Flow depth: 8.6 m
 Damage: wall due to tree debris and severe scouring at foundation
 Location: Latitude = 38.036968 and Longitude = 140.917572



Large deposition



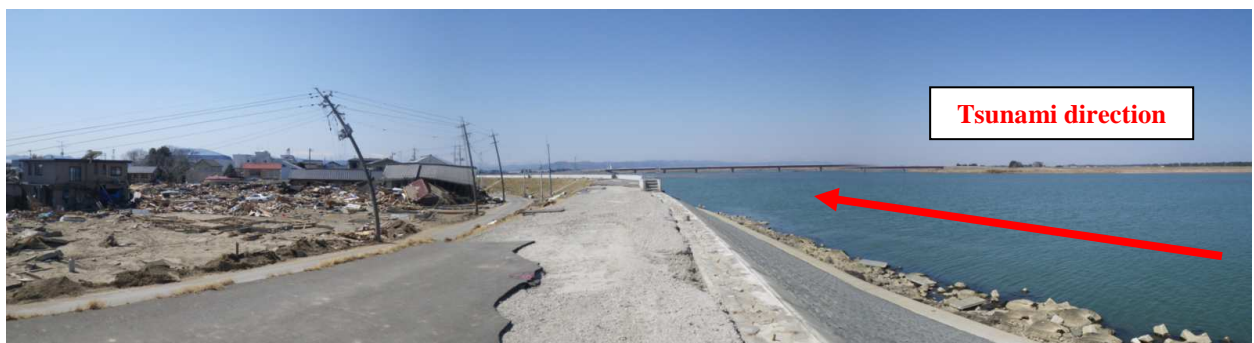
Large deposition



Serious debris impact especially fishing boats



Tsunami direction



Tsunami direction