

Disaster Survey for the Great East Japan Earthquake and Tsunami Disaster in Ports and Harbors

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1. Field surveys on damage to port and harbor facilities

Since the Great East Japan Earthquake, the Coastal and Marine Department and the Port and Harbor Department have conducted the following disaster surveys on a total of 12 occasions.

- 1) Survey of tsunami traces and damage to facilities as TEC-FORCE / Jointly with the Port and Airport Research Institute (PARI) / March-April
- 2) Survey on the state of damage to coastal protection facilities / May-Sept.
- 3) Survey on the state of damage to port and harbor facilities and measurement of microtremors / June-Nov.

2. Activities as TEC-FORCE

From March 15th to 30th, a total of eight employees from the two Departments were sent to survey tsunami traces and the state of damage to port and harbor facilities ¹⁾.

3. Survey on the state of damage to coastal protection facilities

From May 9th to September 1st, a total of seven employees from the Coastal and Marine Department were sent to survey the state of damage to coastal protection facilities ²⁾.



Photo: A field survey in progress

4. Survey on the state of damage to port and harbor facilities and measurement of microtremors

From June 9th to November 2nd, a total of three employees from the Port and Harbor Department were sent to survey the state of damage to port and harbor facilities and to measure microtremors. The aim of this measurement was to study the relationship between the state of damage to port and harbor facilities, geotechnical conditions and seismic motion amplification factors. Among others, seismic motion in Soma Port was set based on the results obtained.

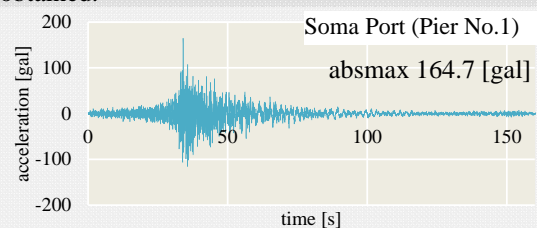


Fig: L1 seismic motion in Soma Port (Pier No. 1)
(Top of firm ground)

[Reference]

- 1) Urgent Survey for 2011 Great East Japan Earthquake Disaster and Tsunami Disaster in Ports and Coasts, Technical Note of the Port and Airport Research Institute (PARI) No. 1231, April 2011, Takahashi Shigeo et al.
 - 2) Field Survey of the 2011 off the Pacific coast of Tohoku Earthquake and Tsunami on Shore Protection Facilities in Ports, NILIM Technical Note 658, Dec. 2011, Kentaro Kumagai et al.
 - 3) Other individual bulletins, etc.
- <http://www.yk.nilim.go.jp/oshirase/uc.html>