UJNR Panel on Wind and Seismic Effects

Panel Update

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OOMORI BRIDGE DAMAGED BY TYPHOON NO.18

The Oomori Bridge was constructed in 1985, it is 429 m long, and is on the western coastline of Hokkaido. The superstructures of the bridge are 3-span, 1-hinged PC rigid frame and 2 or 3-span continuous PC I-shaped girder.

On September 8, 2004, typhoon No.18 struck Hokkaido. The Oomori Bridge suffered serious damage from storm surge. Two PC girders with total length of 159 m were washed away. Pier No.3 was destroyed and inclined by about 30 cm at the top.

Temporary restoration has been performed. The permanent restoration will be made by the Hokkaido Regional Development Bureau.

Contact: Dr. Hiroaki Nishi, Civil Engineering Research Institute of Hokkaido, h-nishi@ceri.go.jp

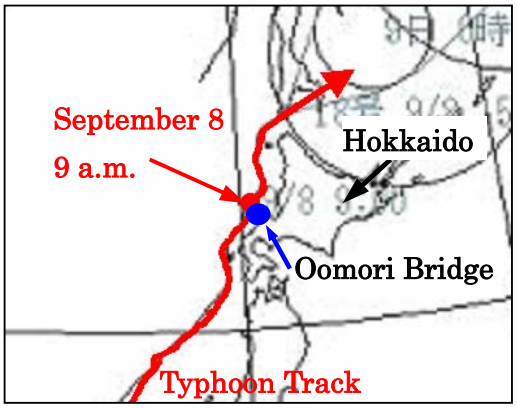

Figure 1. Track of typhoon No.18 and the Location of Oomori Bridge

Figure 2. Washout of Four Spans of Oomori Bridge

JAPAN METEOROLOGICAL AGENCY EARTHQUAKE CATALOG IS BEING REVISED

An earthquake catalog provides an important resource to study seismology and earthquake engineering. The earthquake catalog published by the Japan Meteorological Agency (JMA) covers the period from 1923 to the present. This document may be the most comprehensive catalogue in the world among regional catalogs of instrumentally located earthquakes. Figure 3 below shows the predominant aftershock activity of the 2004 Niigata Chuetsu Earthquake (M6.8) as a typical earthquake data included in the JMA Earthquake catalog. The catalogue is being updated and it will be made available to persons requesting a copy.

Contact: Dr. Nobuo Hamada, Director, Seismological and Volcanological Research Department, Meteorological Research Institute, nhamada@mri-jma.go.jp.

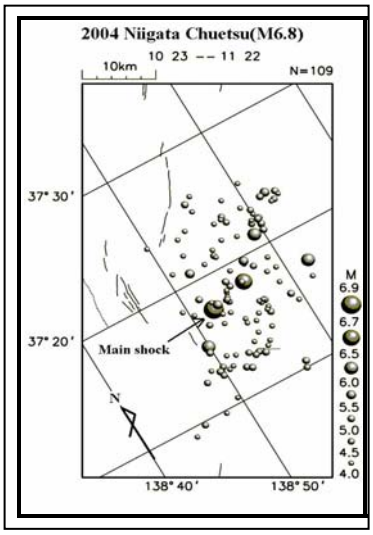

Figure 3. Earthquake Data of 2004 Niigata Chuetsu Earthquake (M6.8)

20TH US-JAPAN BRIDGE ENGINEERING WORKSHOP

The 20th US-Japan Bridge Engineering Workshop was conducted during 4-6 October 2004, Arlington, Virginia. This workshop is a continuation of an annual series of technical interchanges between US and Japan engineers on topics related to bridge engineering. The workshop focused on advanced seismic design and retrofit and accelerated construction. Twenty-four of the 51 registrants were from Japan; twenty-seven from the US. The workshop included 42 presentations and two breakout sessions with one on seismic design and material and the other on construction and maintenance.

Following the workshop, technical site visits included New York City and New Jersey. The delegation visited East River bridges in New York City and the new Victory Bridge over the Raritan River, New Jersey. Discussions focused on seismic retrofit and design concepts and maintenance procedures.

The Workshop steering committee included Phil Yen, FHWA (US side Chair), Hiroshi Sato, PWRI (Japan Side Chair), David Sanders, and Masahiro Ishida. Funding for the US side was provided by the Federal Highway Administration through a grant to the Multidisciplinary Center for Earthquake Engineering Research and a contract to the University of Nevada, Reno. Workshop proceedings will be published and will be made available by contacting Professor Sanders.

Contact. Professor David H. Sanders, Organizer, 20th US-Japan; Associate Professor of Civil and Environmental Engineering at the University of Nevada, Reno, sanders@unr.edu

Figure 4. Bridge Workshop Participants