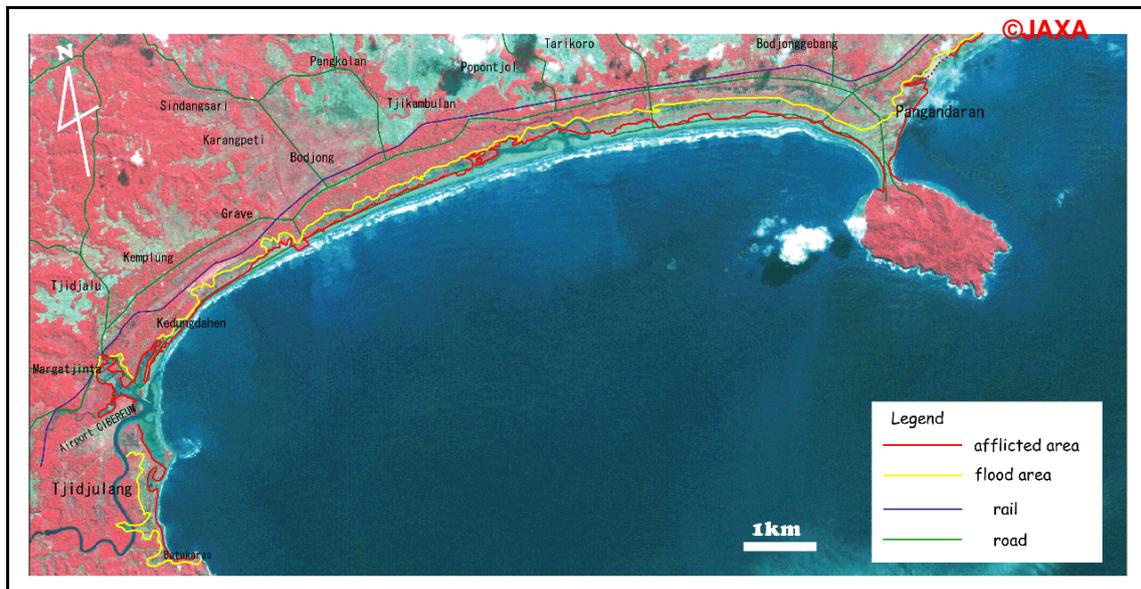


## ALOS IMAGE PROCESSING FOR TSUNAMI DISASTER AT SOUTH JAVA IN 2006

[ALOS](#) (Advanced Land Observation Satellite) is a Japanese satellite launched in January 2006. It has three different sensors for precise land coverage observation. Japan's Geographical Survey Institute (GSI) carried out the geoinformations research for ALOS' mission; e.g. crustal deformation, topographical mapping and hazard identification for disaster preparedness.

For tsunami investigations ALOS uses an image processing AVNIR-2 (Advanced Visible and Near Infrared Radiometer type 2) of the south Java July 2006 tsunami disaster as shown in the figure below. ALOS' NDVI (Normalized Difference Vegetation Index) range calculated the disastrous consequence from a Tsunami by measuring the changes in vegetation activities and the flood affected areas

GSI's research validated ALOS/AVNIR-2 capabilities to depict tsunami disaster.



Tsunami-Disaster Map. Overlaid false color image. Transportations - refer to *Peta Rupabumi Digital Indonesia 1:25,000 Cijulang, Pajaten and Pananjung* by Bakosurtanal. Place Names - refer to *Indonesia 1:250,000 Garut* produced by U.S. Army Map Service.

**Contact:** Dr. Mayumi NOGUCHI, Disaster Prevention Division, Geographical Department, Geographical Survey Institute (GSI), [ynoguchi@gsi.go.jp](mailto:ynoguchi@gsi.go.jp)

## 22<sup>ND</sup> US-JAPAN T/C G BRIDGE ENGINEERING WORKSHOP AND FHWA/NILIM/FHWA ANNUAL BRIDGE ENGINEERING MEETING 2006

Task Committee G (T/C G), Transportation, hosted its 22<sup>nd</sup> US-Japan Bridge Engineering Workshop during 23-28 October 2006, Seattle, WA. The first three days focused on exchanging the Task Committee's recent research and technology through three themes: 1) Geotechnical Engineering, 2) Health Monitoring, and 3) Advanced Seismic Technologies. Forty-one technical papers were presented during these three days. The 24 US delegation members included FHWA researchers, State DOT bridge engineers, industrial practitioners, and academic researchers led by Dr. W. Phillip Yen (US-side T/C Chair). The 24 Japanese delegation members were led by Mr. Jiro Fukui (Japan-side T/C Chair), Director, Structures Research Group, PWRI. During the afternoon of 25 October a half-day government-to-government meeting was held to discuss bridge engineering and administrative issues. During 26-28 October technical site visits included new construction, movable and seismic retrofitted bridges in the Seattle area including the New Tacoma Bridge (see photo) and two floating bridges. The previous (21<sup>st</sup>) US-Japan Bridge Engineering Workshop was held in Tsukuba, Japan during 3-5 October 2005. The Workshop agenda and technical papers are available from <http://www.pwri.go.jp/eng/ujnr/tc/g/21bws/>.

**Contact:** Dr. W. Phillip YEN, Federal Highway Administration, Department of Transportation (FHWA/DOT), [Wen-huei.Yen@fhwa.dot.gov](mailto:Wen-huei.Yen@fhwa.dot.gov)



Site visit to the New Tacoma Bridge that is scheduled for completion in 2007.