

15 Jul 2009

Natural Hazard/Disaster Updates:

14 Jul: Depression in the Bay of Bengal, Location: Centred at 10:00 pm (the 14 July 2009) about 580 kms west-southwest of Chittagong port, 550 kms west-southwest of Cox's Bazar port and 390 kms southwest of Mongla port (near lat. 19.70 n and long 87.30 e). Wind speed: About 40 kph rising to 50 kph. Signal: Local cautionary signal number three (repeat) three (Chittagong, Cox's Bazar and Mongla).

Source: NIRAPAD nirapad@nirapad.org, www.nirapad.org

10 Jul: 6.0 earthquake rocked China's Yunnan Province

An earthquake measuring 6.0 on the Richter scale hit Yunnan Province's Guantun township, Yao'an County (姚安) in the mountainous Chuxiong Yi Autonomous Prefecture at 7:19 p.m. The epicenter was about 200 kilometers from the provincial capital Kunming. Various news agencies reported more than 300 injuries and 10,000 collapsed homes.

<http://www.bloomberg.com/apps/news?pid=20601087&sid=aZ3JEGVbQ2is>

13 Jul: Relief material provided after SW China quake

A total of 285,000 yuan quake relief materials and 50,000 yuan are provided by RCSC to quake-hit areas of southwest China's Yunnan Province. Red Cross Society of China (RCSC) has allocated 100 tents, 2000 quilts, 250 boxes of environment disinfectants to Yunnan to support relief work. More than 400,000 people needed relocation or evacuation after a 6.0-magnitude earthquake rocked Yunnan on last Thursday night. At least one person was killed and 325 were injured, 24 of them seriously. More than 18,000 homes collapsed and 75,000 were damaged in Yao'an and five other counties, all administered by Chuxiong Yi Autonomous Prefecture.

<http://www.reliefweb.int/rw/rwb.nsf/db900SID/PSLG-7TWGJS?OpenDocument&rc=3&emid=EQ-2009-000130-CHN>

11 Jul: China pushes on with quake rescue efforts: state media

The quake displaced 250,000 people in several counties in Yunnan, the official Xinhua news agency said, revising the figure from the 400,000 evacuations reported earlier.

<http://www.reliefweb.int/rw/rwb.nsf/db900SID/MYAI-7TV4HE?OpenDocument&rc=3&emid=EQ-2009-000130-CHN>

14 Jul: Pandemic (H1N1) 2009 Update

WHO says healthcare workers should get first H1N1 Vaccine shots

<http://www.adpc.net/v2007/SwineInfluenza/ViewNews.asp?ID=171>

Singapore: Managing Influenza A (H1N1-2009)

<http://www.adpc.net/v2007/SwineInfluenza/ViewNews.asp?ID=170>

Vietnam : 247 A/H1N1 patients discharged from hospitals

<http://www.adpc.net/v2007/SwineInfluenza/ViewNews.asp?ID=169>

Thailand reports three more deaths from A/H1N1 flu, Total 24

<http://www.adpc.net/v2007/SwineInfluenza/ViewNews.asp?ID=168>

A/H1N1 flu cases climb to 24 in Laos

<http://www.adpc.net/v2007/SwineInfluenza/ViewNews.asp?ID=167>

Chinese mainland A/H1N1 flu cases reach 1,354

<http://www.adpc.net/v2007/SwineInfluenza/ViewNews.asp?ID=166>

Malaysia: Influenza A (H1N1) outbreak under control

<http://www.adpc.net/v2007/SwineInfluenza/ViewNews.asp?ID=165>

Swine Flu hits record in Brunei as more falls sick, disease crosses the 200 mark

<http://www.adpc.net/v2007/SwineInfluenza/ViewNews.asp?ID=164>

Indonesia's A/H1N1 flu cases rise to 86

<http://www.adpc.net/v2007/SwineInfluenza/ViewNews.asp?ID=163>

13 Jul: WHO recommendations on pandemic (H1N1) 2009 vaccines

The Strategic Advisory Group of Experts (SAGE) on Immunization held an extraordinary meeting in Geneva to discuss issues and make recommendations related to vaccine for the pandemic (H1N1) 2009. SAGE reviewed the current pandemic situation, the current status of seasonal vaccine production and potential A(H1N1) vaccine production capacity, and considered potential options for vaccine use. The experts identified three different objectives that countries could adopt as part of their pandemic vaccination strategy:

- protect the integrity of the health-care system and the country's critical infrastructure;
- reduce morbidity and mortality; and
- reduce transmission of the pandemic virus within communities.

Countries could use a variety of vaccine deployment strategies to reach these objectives but any strategy should reflect the country's epidemiological situation, resources and ability to access vaccine, to implement vaccination campaigns in the targeted groups, and to use other non-vaccine mitigation measures. http://www.who.int/csr/disease/swineflu/notes/h1n1_vaccine_20090713/en/index.html

14 Jul: Swine Flu: H1N1 Virus more dangerous than suspected, except to survivors of the 1918

Pandemic Flu Virus-A new, highly detailed study of the H1N1 flu virus shows that the pathogen is more virulent than previously thought. Writing in a fast-tracked report published July 13, 2009 in the journal *Nature*, an international team of researchers led by UW-Madison virologist Yoshihiro Kawaoka provides a detailed portrait of the pandemic virus and its pathogenic qualities. In contrast with run-of-the-mill seasonal flu viruses, the H1N1 virus exhibits an ability to infect cells deep in the lungs, where it can cause pneumonia and, in severe cases, death. Seasonal viruses typically infect only cells in the upper respiratory system. <http://www.sciencedaily.com/releases/2009/07/090713212231.htm>

8 Jul: Viruses resistant to Oseltamivir (Tamiflu) identified

WHO has been informed by health authorities in Denmark, Japan and the Special Administrative Region of Hong Kong, China of the appearance of H1N1 viruses which are resistant to the antiviral drug oseltamivir (known as Tamiflu) based on laboratory testing. These viruses were found in three patients who did not have severe disease and all have recovered. Investigations have not found the resistant virus in the close contacts of these three people. The viruses, while resistant to oseltamivir, remain sensitive to zanamivir. Close to 1000 pandemic H1N1 viruses have been evaluated by the laboratories in the Global Influenza Surveillance Network for antiviral drug resistance. All other viruses have been shown sensitive to both oseltamivir and zanamivir. WHO and its partners will continue to conduct ongoing monitoring of influenza viruses for antiviral drug resistance.

http://www.who.int/csr/disease/swineflu/notes/h1n1_antiviral_resistance_20090708/en/index.html

News:

14 Jul: Cell phone towers can help predict big floods

Though New Orleans residents were told to evacuate days before the arrival of Hurricane Katrina, no one could have predicted the real extent of the devastation. Now researchers from Tel Aviv University say they have found a novel and reliable way to help predict the intensity of the next big flood, using common cell phone towers across the United States. Their model, which analyzes cell phone signals, adds a critical component to weather forecasting never before available. <http://www.sciencedaily.com/releases/2009/07/090706161304.htm>

13 Jul: Earth hotspot poorly imaged

The Earth's mantle, situated under the Earth's crust, is very much the spot for studying interesting geological processes. Although we do not realise it, right under our feet there is a sultry world of circulating Earth layers. We only come into contact with these hot Earth layers in the event of earthquakes and volcanic eruptions. It is therefore important to learn more about the characteristics of the Earth's mantle. These characteristics can be portrayed using seismic waves. However, the techniques used for this purpose still have various shortcomings. Dutch-sponsored research Ebru Bozdogan demonstrated this during her doctoral research. Seismic waves are frequently used to image the Earth's mantle. They are generated by earthquakes and registered with measuring equipment. Subsequently the characteristics of the seismic waves are converted into an image of the geological structure of the layer. Bozdogan used 3D-simulations of seismic waves to test the reliability of these images. She specifically focused on tomographic images. These are the images where the mantle is portrayed in a 3D cross-section. The mantle tomography techniques currently used are still far from perfect. <http://www.sciencedaily.com/releases/2009/06/090622194340.htm>

13 Jul: Tremors on southern San Andreas fault may mean increased earthquake risk

Increases in mysterious underground tremors observed in several active earthquake fault zones around the world could signal a build-up of stress at locked segments of the faults and presumably an increased likelihood of a major quake, according to a new University of California, Berkeley, study. Seismologist Robert M. Nadeau and graduate student Aurélie Guilhem of UC Berkeley draw these conclusions from a study of tremors along a heavily instrumented segment of the San Andreas Fault near Parkfield, Calif. <http://www.sciencedaily.com/releases/2009/07/090709140817.htm>

10 Jul: Indonesian scientists track disease

A group of veterinary scientists from Indonesia is learning to track the spread of animal-borne diseases in a 3-week program hosted by the University of Sydney. The program is part of an Australian Aid Agency (AusAid) Leadership Awards Fellowships program. The aim is to equip the 14 visiting veterinary epidemiologists with important skills to improve surveillance, detection and monitoring of animal-borne diseases. The vets will learn about the use of GIS and GPS at the university's Veterinary Centre as part of a series of visits to various veterinary facilities. The scientists include key senior staff and younger veterinarians from a range of regions in Indonesia. All are members of the newly established Indonesian Veterinary Epidemiology Association. Dr Arief Riana Aryani, from the Centre for Indonesian Veterinary Analytical Studies, is the youngest scientist on the study tour <http://www.asmmag.com/news/indonesian-scientists-track-disease>

9 Jul: El Niño arrives; expected to persist through winter 2009-10: NOAA scientists announced the arrival of El Niño, a climate phenomenon with a significant influence on global weather, ocean conditions and marine fisheries. El Niño, the periodic warming of central and eastern tropical Pacific waters, occurs on average every two to five years and typically lasts about 12 months. Sea surface

temperatures along the equatorial Eastern Pacific, as of July 1, are at least one degree above average – a sign of El Niño. NOAA expects this El Niño to continue developing during the next several months, with further strengthening possible. The event is expected to last through winter 2009-10. “Advanced climate science allows us to alert industries, governments and emergency managers about the weather conditions El Niño may bring so these can be factored into decision-making and ultimately protect life, property and the economy,” said Jane Lubchenco, Ph.D., under secretary of commerce for oceans and atmosphere and NOAA administrator.

http://www.noaa.gov/newsroom/stories/2009/20090709_elnino.html

6 Jul: Natural deep earth pump fuels earthquakes and ore

For the first time scientists have discovered the presence of a natural deep earth pump that is a crucial element in the formation of ore deposits and earthquakes. The process, called creep cavitation, involves fluid being pumped through pores in deformed rock in mid-crustal shear zones, which are approximately 15 km below the Earth's surface. The fluid transfer through the middle crust also plays a key role in tectonic plate movement and mantle degassing. The discovery was made by examining one millimetre sized cubes of exposed rock in Alice Springs, which was deformed around 320 million years ago during a period of natural mountain formation.

<http://www.sciencedaily.com/releases/2009/06/090618093238.htm>

4 Jul: First detailed look at progress of a wildland-urban fire

A wildfire rages across southern California wildlands towards residential communities, endangering residents and firefighters and sending property up in smoke. This is an increasingly common story, occurring several times a summer. To better understand these Wildland-Urban Interface (WUI) fires and how best to prevent or fight them, researchers at the National Institute of Standards and Technology (NIST) have issued an in-depth study on fire behavior and defensive actions taken in a community during a such a fire. WUI fires are becoming more prevalent as housing developments push into former wilderness areas. Drought is believed to also be a major contributor to larger wildfires. In addition to southern California, WUI fires also burn across the southern United States and in countries such as Australia, Greece, Italy and Spain. Little research has been conducted on understanding WUI fire behavior and on the effectiveness of current risk mitigation strategies.

<http://www.sciencedaily.com/releases/2009/06/090617123429.htm>

3 Jul: Hurricane Katrina: Why some people stayed behind

Hurricane Katrina was the largest natural disaster in U.S. history, claiming the lives of more than 1,800 victims and causing well over \$100 billion in damage along the Gulf Coast. The 2005 storm breached every levee in New Orleans, flooding almost the entire city as well as the neighboring parishes. Yet a surprising number of people stayed behind and rode out the storm. The general public, members of the media and government officials made instant analyses and character judgments of the people of New Orleans. But few people asked the residents themselves until recently. Stanford University psychologist Nicole Stephens and her colleagues decided to compare the views of outside observers with the perspectives of the New Orleans residents who actually rode out Katrina.

<http://www.sciencedaily.com/releases/2009/07/090702110501.htm>

3 Jul: Faults and earthquakes in China monitored from space

China is in a very seismically active area and has had many catastrophic earthquakes during its history. A joint European-Chinese team is using satellite radar data to monitor ground deformation across major continental faults in China to understand better the seismic cycle and how faults behave. Using Synthetic Aperture Radar (SAR) satellite data and a technique known as SAR Interferometry (InSAR), along with GPS data, scientists participating in ESA's Dragon 2 Programme have been able to measure the ground deformation that occurred during the Wenchuan earthquake that struck China's Sichuan Province last May. InSAR involves combining two or more radar images of the same

ground location in such a way that very precise measurements – down to a scale of a few centimetres or even millimetres in some cases – can be made of any ground motion taking place between image acquisitions. <http://www.sciencedaily.com/releases/2009/07/090703091808.htm>

Air quality improves over Beijing

Chinese and Dutch researchers have found that the measures introduced to improve Beijing's air quality ahead of the 2008 Olympic Games succeeded in reducing the levels of nitrogen dioxide (NO₂) above the city by about 60 per cent. The project is part of the European Space Agency's Dragon 2 program. Dragon 2 – a joint initiative of ESA and the Ministry of Science and Technology of China – encourages scientists to use Earth observation data to monitor and understand environmental phenomena in China. The team of scientists – led by Ronald van der A from the Royal Netherlands Meteorological Institute and Pucai Wang from the Institute of Atmospheric Physics in the Chinese Academy of Sciences – used the Global Monitoring Ozone Experiment (GOME-2) atmospheric instrument on the MetOp satellite to evaluate the direct effect of government policies to reduce air pollution in the Chinese capital. The measures, which were in place from July to September, included taking 50 per cent of Beijing's 3.5 million vehicles off the road and closing factories in and around the city. The team used data from the Dutch-Finnish OMI satellite instrument to confirm their findings.

By comparing GOME-2 measurements with air-quality model results, the team found that the air quality measures, while especially effective in the Beijing area, were also noticeable in surrounding cities. Tianjin, which lies about 112 km southeast of Beijing, experienced a 30 per cent NO₂ reduction. Shijiazhuang, which lies 265 km southwest, experienced a 20 per cent drop.

<http://www.asmmag.com/news/air-quality-improves-over-beijing>

ESA monitors Chinese Earthquakes

A joint Chinese-European team is using satellite radar data to monitor ground deformation across major continental faults in China. The scientists - who are part the European Space Agency's Dragon 2 program - are combining synthetic aperture radar satellite data and SAR interferometry (InSAR) with GPS data to measure the ground deformation that occurred during the Wenchuan earthquake that struck China's Sichuan province in May 2008. The Wenchuan earthquake occurred on the Longmen Shan fault, along the eastern margin of the Tibetan Plateau. Major earthquakes cause changes in stress along the faults in the region. These changes can lead to more earthquakes. Using InSAR and GPS data, scientists can measure stress changes and how associated deformation is distributed. According to Shen, the team has found that some regions on the fault did not rupture much during the earthquake. The question the scientists are now asking is whether this means the energy is still partially locked and therefore, accumulating for the next earthquake. Another possibility is that these regions had accumulated less energy prior to the quake than scientists originally thought. <http://www.asmmag.com/news/esa-monitors-chinese-earthquakes>

Protecting Vietnam's Forests

The Vietnamese government says it will commit all necessary resources to protecting the country's forests against fires. Vietnamese forest managers are engaging many techniques, including satellite remote sensing, in an effort to get on top of the problem. Speaking at the fourth conference of the Standing Committee of ASEAN Agreement on Trans-boundary Haze Pollution, held in Hanoi on 4 June, deputy minister of agriculture and rural development Hua Duc Nhi said the government would engage all necessary resources for sustainable forest management, forest protection and development. In the last decades, Vietnam's rainforests have been seriously damaged. The use of chemical defoliant during the American War was particularly destructive and some areas still show signs of

damage. Vietnam's breakneck economic growth has also taken a heavy toll. Between 1990 and 2005, the country lost a staggering 78 per cent of its primary forests, leaving it with only 85,000 hectares of old-growth forest (0.66 per cent of its forest cover or 0.26 per cent of its total land cover). The total loss of forest (38 per cent during that period) has been moderate, but is still among the highest in the world. <http://www.asmmag.com/news/protecting-vietnam-s-forests>

New forum to address healthcare facilities

From patients' blood types to their health insurance numbers, private information resides on computers across the nation's healthcare facilities. Aware of the risks involved, the sector has created a new forum to improve idea-sharing and decision-making on information security matters. The Leadership Roundtable, an initiative by the Health Information Trust Alliance, aims to help support the growing role of the healthcare chief information security officer (CISO). While health information technology helps improve quality and keep things running more smoothly and economically, it creates a need for reliable and efficient security measures to protect the electronic data. Top-level executives in the healthcare sector are paying close attention to their corporate responsibility for both quality healthcare and secure information systems. The Leadership Roundtable brings together healthcare's information security executives to formally address the often complex issues of healthcare information security, privacy and risk management. Among other projects, the new forum aims to streamline the way physicians log into multiple computer systems on the job.

http://www.businesswire.com/portal/site/google/?ndmViewId=news_view&newsId=20090629005253&newsLang=en
<http://disaster-resource.com/newsletter/2009/subpages/v292/newsclip2.htm>

Events

National Computer Science and Engineering Conference (NCSEC)

NCSEC is one of the most successful conferences held annually in Thailand. It provides a central forum for experts to promote, share and discuss various issues and developments in the broad field of information and computer technologies. NCSEC will provide an opportunity for young researchers to demonstrate their talent and interesting research ideas. The conference will benefit people who are actively involved in research related to computer science and engineering in Thailand. <http://www.ncsec-thailand.org/ncsec2009/index.php?main=home>

July 30, 2009: The Environmental Information Revolution, Washington D.C.

www.ForumOnEO3.com

Information Resources

Annual Global Climate and Catastrophe Report: 2008

The year 2008 was unremarkable from an insured natural catastrophe loss perspective. May's earthquake in China and September's Hurricane Ike brought the most coverage from the news media, but these events proved to be mere sideshows when compared to the capital stresses put upon insurers and reinsurers from the credit and liquidity crisis.

<http://www.abuhrc.org/Pages/index.aspx>

<http://www.reliefweb.int/rw/lib.nsf/db900SID/MWAI-7TL3RJ?OpenDocument>

Malaysian Flood Map

The Malaysian Remote Sensing Agency and the Drainage and Irrigation Department have co-operated to produce a flood map of the country. It covers the most significant events of the last five

years. The worst hit states were Johor, where 43,186 ha were affected, and Pahang, where 36,054 ha were affected. The worst year was 2007, when 19,236 ha of the Muar and Segamat regions were inundated by a single event. The maps were produced from satellite imagery, so they depict the full extent of the flooded areas. Eye witness accounts can only give information about the flood at individual points and frequently underestimate the flooded region. Floods are a fact of life in Malaysia. In the floods of 2007, more than 7000 farmers incurred losses estimated at more than RM27 million. There were 14 deaths in the November-December 2005 rainy season, 18 in 2006 and 33 in 2007. In 2008 alone, the government spent more than RM19 million in payouts of RM500 each to 38,837 affected people nationwide. <http://www.asmmag.com/news/malaysian-flood-map>

Apollo Tyres releases Handbook on Disaster Management for Mumbai Rains

Apollo Tyres has recently introduced its monsoon campaign by circulating Handbook on Disaster Management, containing safety tips and useful numbers, to assist citizens of Mumbai in taking precautions to ensure a safe monsoon. This activity will continue till July 14, 2009, at various traffic intersections and other important locations. The initiative, led by Apollo Tyres Ltd, India's leading tyre manufacturer, is aimed at distributing the handbook to over 2,50,000 motorists in Mumbai. Apart from the safety tips, this booklet contains contact numbers of disaster management cells, fire brigade, coast guards, towing facilities, sanitation authorities, police stations, hospitals, blood banks and other emergency services across Mumbai. This initiative was started in 2006, after Mumbai faced the biggest disaster of recent times in the form of city floods during July 2005, with a mission to limit and alleviate the ill effects of any untoward incident disrupting the normal functioning and safety of the city and its occupants.

<http://www.wheelsunplugged.com/ViewNews.aspx?newsid=3825>

<http://www.apolloytyres.com/downloads/atl-safe-drive-2009.pdf>

Emergency and Humanitarian Action, WHO South-East Asia

EHA SEARO is exploring various ways to expand its unique advocacy e-campaign to protect hospitals from disasters. The website www.clickabrick.org urges people to click a brick to build a virtual, safe hospital and provides information on the urgent need for safer hospitals. The expansion of the campaign will involve revamping the website, connecting with new technologies, and linking it with WHO partners. <http://www.searo.who.int/eha>

Natural disaster quiz: <http://environment.nationalgeographic.com/environment/natural-disasters/quiz-natural-disasters.html>

Taq & Dhajji Dewari- An alternate & Earthquake safe traditional house construction practice in

Kashmir: The Kashmir region lies in a high seismic hazard zone, where destructive earthquakes take place at regular intervals. On October 8, 2005, the Mw 7.6 earthquake occurring at a depth of 26 km, with epicenter at 34.6 0N, 73.0 0E near the town of Muzaffarabad, was felt throughout Pakistan and India. The earthquake paralyzed standard daily living for a considerable time due to the damage and destruction of houses and infrastructure in the area. A population of more than half a million was affected due to the earthquake. About 90,000 households in the Kashmir Division and 8,000 households in the Jammu Division were greatly affected. Regardless of this destruction and devastation, indigenous construction techniques helped to save the lives of many individuals. Due to the frequent occurrence of earthquakes in the Kashmir region, the people of this area have developed indigenous construction practices for earthquake safe housing. The techniques, known as "Taq" and "Dhajji-Dewari" system, have been found to have earthquake resistant qualities. <http://www.devalt.org/taranet/websitepages/basinSaDefault.aspx?catalogid=133&page=GenericLayoutBasinAlert.aspx?CatNavbarID=4492>

An **article** in The Japanese Times Online states that even though a recent government report shows that 7,300 Japanese schools are at risk to collapse, officials are not enforcing a law requiring public disclosure of seismic resistance tests that could determine the schools most at risk. The article also notes another study by the Organization for Economic Cooperation and Development that found schools will routinely collapse from quakes because of design and construction errors, as well as lax enforcement of building codes.

<http://search.japantimes.co.jp/cgi-bin/ed20090705a2.html>

CRSCAD is **sponsoring an international essay contest** to encourage college and university students to focus on the topic of their upcoming conference next year, Rebuilding Sustainable Communities with the Elderly and Disabled People after Disasters. CRSCAD will publish the winning 50 essays in the monograph and the top 20 will be publicly honored and invited to the conference. Contact Marla Petal or Rachel Wilcox for more information at [crscad \[at\] umb.edu](mailto:crscad@umb.edu).

The International News Safety Institute (INSI) is now on Twitter. www.newssafety.org or go direct to Twitter at <http://twitter.com/newssafety> INSI is a non-governmental organisation established on 3 May 2003 by a unique coalition of news organisations, journalist support groups and humanitarian campaigners concerned by the rising numbers of journalists killed around the world.

For archived DRM updates:

ADPC Website:

<http://www.adpc.net/v2007/IKM/EVENTS%20AND%20NEWS/DISASTER/2008/DISASTER-NEWS-2008.asp>

Note: The information has been collated from publicly available information. Although the sources are deemed reliable, the information reported here are topical and are subject to change.

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