Feeling the Earth shake in Telopea Park School
Le Lycée Franco-Australien de Canberra: insights into the program "SISMOS à l'École"

By Olivier Ngo - Teacher at Telopea Park School - olivierngo@hotmail.com

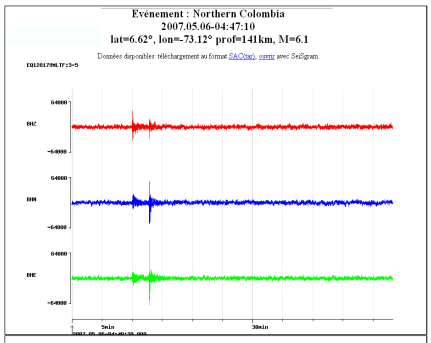
Earthquakes are both troubling and fascinating because of their suddenness, the terrible destruction they can generate and because they still remain largely unpredictable. This is why emphasis must be placed on prevention, especially in the school system where causes and effects of these hazards are studied. Trying to explain earthquakes entails moving into the inaccessible, scrutinizing the earth's depths, taking on the planet's internal dynamics. In this respect seismology is a source of complexity and fascination. Scientific culture is thus at the heart of seismic risk instruction.

All this is what is involved in the "SISMOS à l'École", "Sciences à l'École" (1, 2) curriculum, that implements an educational approach allowing a natural risk culture to be engaged through a scientific and technological approach. The original and innovative aspect of this program stems from giving students the opportunity to install a seismometer in their school. The recorded signals, reflecting regional or global seismic activity, feed into an online database, a genuine seismic resource centre and a springboard for educational and scientific activities (3, 4). The network – numbering some forty stations installed in metropolitan France, the overseas departments and territories and French high schools abroad – is the outgrowth of an experiment conducted in the Alpes-Maritimes region, France some ten years back (5).

Telopea Park School / Le Lycée Franco-Australien de Canberra just joined this international network last July. A seismic station was installed within the school on July 25, 2008 (6, 7). It is the 44th station of the network, the 3rd one in the Southern Hemisphere and the 1st one in the Asia-Pacific area. Our station will thus provide very interesting recordings from the Asia-Pacific area that will complement those from other stations. Our seismic station will encourage our students to become "ambassadors" of natural catastrophe prevention in their school, in their families and more broadly in their local environment. Our project will benefit all the students in our school (French and Australian) and, more generally, the members of our school community. This is part of a broader challenge to encourage our students' interest in science and to steer them towards scientific studies and professional careers.

Our project will develop and strengthen links with local and international partners in economical, educational, scientific and cultural fields. As a matter of fact, several partnerships have already been established. Our project has benefited from the generous financial contributions of the French Embassy in Australia and of the Australian French Association for Science & Technology (AFAS). The European Commission's Delegation to Australia is also supporting our project as it represents the extension of the early European network called EduSeis (8, 9). A scientific partnership has been established with Geoscience Australia through the program called "Scientists in Schools" and the Research School of Earth Sciences (RSES) of ANU. Both these labs are bringing scientific expertise and human resources to our project.

The installation of a seismic station in Telopea Park School / Le Lycée Franco-Australien de Canberra exemplifies how the development of simple devices and the design of concrete experiments associated with an investigative approach make it possible to instill the students with a high-quality scientific culture and to educate future citizens about risks.



Example of seismic event recorded by the Seismometer

References:

(1) http://www.edusismo.org/
(2) http://sciencesalecole.obspm.fr/
(3) Berenguer J.L., Ferry H. Pascucci F., Septembre 2006: Le cahier d'activités du SISMO – activités éducatives proposées par le 'Sismo des Ecoles' – scéren – académie de Nice
(4) Berenguer J.L., Virieux J., Septembre 2006: Projet éducatif 'Sismo des Ecoles' – géosciences N°4 – revue du BRGM pour une Terre durable.
(5) http://aster.unice.fr/
(6)http://www.edusismo.org/fiche_travos.asp?id=40
(7)http://www.delaus.ec.europa.eu/News&events/News/2008/TelopeaSeismicProject.htm
(8) Berenguer, J..L., Picq, T., Zollo, A., and Virieux, J., 2003: EDUSEIS: an European Educational Seismological Project. Oral, EGS-AGU-EUG Joint Assembly – Nice, France, April 2003
(9) Virieux, J., 2000, Educational Seismological project: EDUSEIS, Seismological Research Letters, 71, 530-535