

FIRST INTERNATIONAL WATER ROCKET EDUCATION WORKSHOP HELD AT VSSEC



On June 30, the first International Water Rocket Education Workshop was launched at the Victorian Space Science Education Centre (VSSEC), bringing together Japanese rocket scientists and experts to exchange ideas and experiences with educators from Australia, South East Asia and South America.

Conceived by the Asia-Pacific Regional Space Agency Forum (APRSAF), of which Australia is a member, and supported by the Japanese Space Agency (JAXA), VSSEC, the Victorian Department of Education, Engineers Australia and the CSIRO, the workshop used water rockets as a low-cost, hands-on science activity that educators from developing countries can use to engage their students and inspire the next generation of young scientists, and demonstrate how real engineering challenges and scientific principles can be addressed using very simple materials.



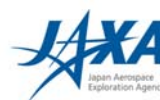
participants launched air and water rockets,

The first Japanese scientist to launch a human using water rocket technology, Mr Tetsuo Kataoka, supervised the construction and launch of the rockets. Mr. Kataoka, is a helicopter engineer and water rocket legend in Japan. The workshop

two-stage rockets with parachute return, and super rocket gliders constructed from an inflatable baseball bat, soft-drink bottle and paper nose cone.

The Japanese delegation also included, JAXA rocket scientist, Professor Yasuhiro Morita, who briefed the workshop about real rockets, and Professor Koh-ichiro Oyama, currently at Taiwan's Institute of Space Science, discussed the use of rockets for scientific research, providing a fantastic opportunity for educators to meet and talk to eminent Japanese space scientists.

The participants exchanged ideas to support the use of water rockets to teach science and established a wiki site to encourage collaboration between educators and facilitate the sharing of education materials. This site will be made public shortly, please refer to the next issue of **CAPCOM** for details.



PRIMARY SCHOOL OUTREACH PROGRAM: ROCKETRY FOR KIDS



To coincide with the Water Rocket Educators Workshop VSSEC launched its Primary School Outreach Program for 2008. This year VSSEC, with the support of Engineers Australia, has compiled a collection of hands-on activities and resources for teaching primary science and mathematics using rocketry. These include:

- Practical Rocketry
- NASA Solar System Math
- Google build a rocket garden

This material is available to download free from our website www.vssec.vic.edu.au or a CD containing this material is available free of charge to all Australian teachers by emailing VSSEC information@vssec.vic.edu.au.



ENGINEERING AND SCIENCE CAREERS EXPO



Thursday 21st August 1:00 – 7:00pm
Victorian Space Science Education Centre
400 Pascoe Vale Rd, Strathmore

As students move into the second half of the academic year the topic of course selection and subject choice is common, and competing with thousands of students at multiple university open days a reality. The VSSEC Engineering and Science Careers Expo was established to expose students to a broad range of options and provide them access to representatives from ALL Melbourne Universities in one place.

- **Talk to representatives from ALL Melbourne universities in one place.**
- **Discuss course options and course pre-requisites.**
- **Explore potential career paths in science and engineering**

**Auspace / Nova Space / Varian Instruments
/ National Measurement Institute /
Engineers Australia**

A program of experienced and diverse speakers has been assembled to discuss their work and talk about their experiences of studying and working in a scientific field.

- 1:15** Dr Chris Stathis
(Biomedical Science)
- 2:00** The Endeavour Management Team
(Electrical & Electronic Engineering)
- 2:45** Dr Randall Robinson
(Ecology)
- 3:30** Katherine Stockham
(Applied Chemistry)
- 4:15** Dr Michael Murphy
(Astrophysics)
- 5:00** Claire Baker
(Aerospace)
- 5:45** Dr Sarah Meachem
(Medical Research)
- 6:30** Kyle Rebryna
(Geology)

Schools are encouraged to bring groups of students to this **FREE** event. Parents and the general public are welcome. Seats for the speaker program are limited and booking is essential. Speaker biographies and a booking form can be downloaded from our website www.vssec.vic.edu.au

DISCOVER THE NIGHT SKY AT THE MELBOURNE PLANETARIUM

Due to popular demand the Melbourne Planetarium at Scienceworks presents a return season of their special after-dark sessions, Thursday evenings from 7 to 28 August at 7pm. All evenings include complementary wine and cheese, the opportunity to chat to the Planetarium's astronomer and to be immersed in a planetarium experience. You will finish the evening stargazing through telescopes (weather permitting). For more information and pricing please visit

<http://museumvictoria.com.au/planetarium/whats-on/event/?event=562381>

HOT NEWS FROM THE BIG BANG: PROF MALCOLM LONGAIR AT THE MELBOURNE PLANETARIUM

Astronomy Lecture



The last decade has seen a revolution in our understanding of the universe. Astrophysical cosmologists can now describe a model that pin-points its size, shape and composition. It's even possible to reveal the seeds that led to galaxies, galaxy clusters and the massive superclusters. But many questions are still to be tackled – the strange mystery of dark energy; the curious nature of dark matter; the early moments of the Big Bang.

Leading UK astrophysicist, Malcolm Longair, Cavendish Laboratory, Cambridge, UK, presents *Hot News from the Big Bang*, the first Allison-Levick Lecture to be presented in Melbourne. The session also includes a Planetarium show and the opportunity to star gaze through telescopes (weather permitting).

Date: Friday 29th August 2008,
Time: 6:30pm
Venue: Melbourne Planetarium,
Cost: \$15 adults; \$12.50 concession and MV members
Bookings: Please call (03) 9392 4819

JOIN THE VSSEC MAILING LIST

If you would like to receive a monthly issue of **CAPCOM** and keep up to date with the latest activities at VSSEC please go to our website www.vssec.vic.edu.au or send an email to information@vssec.vic.edu.au with your name, email and affiliation.