



ABOUT THE SOUTH AUSTRALIAN SPACE SCHOOL



AIM

The aim of the South Australian Space School (SASS) is to provide a stimulating and rewarding educational experience for the most intelligent and talented of our Year 10 students in South Australia, to focus them on a career in science or engineering. This was the first state-based Space School to be established in Australia.

BACKGROUND

In 1992, through a government grant for the International Year of Space, the Australian International Space School (AISS) was founded in Sydney and Canberra, and attended by 100 students from around Australia and from other countries.

Mike Roach was the teacher chaperone to five AISS students from South Australia, and also the two students who were selected to attend the International Space Camp in Huntsville, Alabama USA, later that year. He completed a Space Science Educators Course while in the USA. On his return, he continued his involvement with AISS as Educational Advisor, and he attended AISS each year in this capacity. Mike was also on the board of the **Centre for Australian Space Education (CASE)**, a non-profit educational organisation of teachers, scientists and engineers interested in promoting the space industry in Australia. CASE coordinated many Australia-wide competitions and activities for students of all age levels, and provided opportunities for study tours to the Kennedy Space Centre, and to the Mount Keck Telescopes in Hawaii.

John Hisco (DECS) attended AISS in 1995, and he liaised with Mike on the development of teaching and learning programs in space science and astronomy for schools. He was an active member of the Astronomical Society of South Australia and on the society's council. He developed learning programs with Pipehenge, a daytime astronomical teaching aid. John has taught astronomy in schools since 1984.

In 1996 Mike was approached by Dr Olivia Samardzic, representing the Australian Institute of Physics SA, and they began discussions about the possibility of organising a Space School for South Australia. Mike and Olivia began work finding sponsors and organising the program.

The inaugural South Australian Space School took place in 1997, after successfully obtaining sponsorship from the DSTO and British Aerospace (now BAE Systems). This sponsorship enabled us not only to send two boys and two girls to the Australian International Space School (AISS) held in Sydney and Canberra the following year, but also to bring **NASA astronaut Dr Scott Parazynski** to Adelaide for the inaugural SASS. Dr Parazynski helped repair Mir in a space walk one month prior to visiting Adelaide, and was personal physician to Major John Glenn on his Space Shuttle experience. While a member of STS120, Dr Parazynski successfully repaired snagged solar panel arrays on the International Space Station during an unplanned spacewalk.

In 1998 Australian-born astronaut **Dr Andy Thomas** met and signed group photographs for the graduate SASS students and sponsors at a special Premier's State Reception at the Festival Theatre.

In 1999 astronaut **Dr James Reilly** visited the Space School, and joined the students in activities and an excursion to the Planetarium at Mawson Lakes.

From 1998 to 2000, DSTO was the sole sponsor of the SASS, and during this time we found it difficult to fund students to attend AISS, and to guarantee an astronaut appearance. All supervisors, speakers and facilitators for this program are volunteers. **Andy Thomas** has given us great support when in Adelaide.

In 2001 the **Sir Ross & Sir Keith Smith Fund** became the major sponsor of the South Australian Space School, and since then the SASS has again been able to fund four SA students to attend AISS each year. In addition, we were able to sponsor two students from South Australia to attend the International Space Camp in Alabama, USA, in August 2002.

In 2003 we brought to Adelaide **Lt-Col Pamela Melroy**, a NASA Space Shuttle pilot, to help us celebrate the centenary of the Wright Brothers' first powered flight. Pamela Melroy was mission commander on STS-120 in 2007.

In 2004 we collaborated with the International Space University, which held its Space Studies Program in Australia for the first time (and in the southern hemisphere for only the second time) in 2004, and our students enjoyed a meeting with **ESA astronaut Dr Reinhold Ewald** as he related his adventures on the Mir Space Station.

In 2005 **Col. Pamela Melroy** returned once again to work with our students and in 2006 we were entertained by NASA's **Dr Bobby Satcher**, a chemical engineer and orthopaedic surgeon.

In 2007 NASA Mission Specialist **Marsha Ivins**, who has travelled into space on five occasions and is currently head of the Exploration Branch of the NASA Astronaut Office, visited the SASS. In 2008 we again invited **Dr. Jim Reilly**, now a specialist space walker, who had recently returned from his third mission to assist in the completion of the International Space Station.

In 2009, the space school attended the Victorian Space Science Education Centre, in Melbourne. Our program included activities such as university laboratory tours, guest presentations by professional scientists and engineers and a simulated Mission to Mars and The Orbiting Space Laboratory. **Dr. Jim Reilly** also joined the space school, and stepped with them on to the surface of Mars!

We believe that the students who attend the SASS have the capacity to become the science leaders of the future. We form strong strategic partnerships with professional organisations and institutions that support the encouragement of our youth towards a career in science or engineering.

The space school has gained a very high profile within the South Australian science community, and our graduates are in demand as speakers at National Science Week events. The space school has become steadily more popular each year and in 2007 we had 80 applicants from 35 schools.

A gallery of all astronauts, links to their biographies, and many photographs of our graduates appear on our website: www.spaceschool.com

Australian International Space School (AISS) and National Space Camp Woomera (NSCW)

Since 2004 the SASS project team have taken on the responsibility of running AISS. From 2004 to 2006, the AISS was run out of Adelaide over the October long weekend with a four day trip north to the famous Woomera rocket range. This has been made possible by the generous support of the Sir Ross & Sir Keith Smith Fund. We have students from all states and territories attending, along with representatives from New Zealand. In 2007, the AISS was held in Canberra during the July school holidays. In 2008 AISS was re-badged National Space Camp Woomera to more accurately reflect on our activity. We invite students to apply from all States and Territories.

The Sir Ross
& Sir Keith
Smith Fund



SPACE SCHOOL COORDINATORS

The coordinators of the SASS meet roughly six times per year to look at feedback that we collect from student graduates, to design new programs and revisit our schedules. We set budgets and review timelines to ensure smooth running of the space schools and discuss new opportunities for our graduates and current students.

Mike Roach Physics teacher, Hamilton Secondary College; past President, South Australian Science Teachers Association (SASTA); treasurer, Australian Science Teachers Association (ASTA); Winston Churchill Fellow 2001; winner, Prime Minister's Prize for Excellence in Secondary Science Teaching, 2005.

Dr Olivia Samardzic PhD, experimental atomic physics; Chair, Australian Institute of Physics (AIP) Education Committee; Women in Physics; and Senior Research Scientist at the Defence Science and Technology Organisation (DSTO) – a SASS sponsor since 1997.

John Hisco Astronomical Society of South Australia (1976 – 2009) and past President; SASS web page designer; physics teacher. John currently works in the Department of Education and Children's Services (DECS) Health and Safety Services.

Dr Kimberley Clayfield PhD, Mechanical Engineering; Chair, Sydney Section, American Institute of Aeronautics and Astronautics. Kimberley currently works for the CSIRO as Executive Manager in Space Science & Technology.

Tony Virgo Senior physical education and biology teacher at Hamilton Secondary College; amateur astronomer and world class astronomical photographer; past president of the Woomera Astronomical Observatory. Tony has designed and is currently teaching an adult class in astronomy at Hamilton SC.

Malcolm Schapel Computer technician, Hamilton Secondary College. Malcolm prepares all experiments and model rocket building materials for the space schools. He instructs the students in the building of their rockets to optimise successful launches.

Andrea Boyd PhD, mechatronics engineering from Adelaide University. Andrea attended SA Space School in its inaugural year 1997 as a year 10 student.

Susan Cockshell Physics teacher, Annesley College; Sue has been with us since 1997 but since 2004 has had to put the space schools on hold as she has started a family.