ARKAROOLA MARS ROBOT CHALLENGE SPACEWARD BOUND EXPEDITION

23rd March, 2014

The Arkaroola Mars Robot Challenge Expedition is the latest of a series of expeditions run by Mars Society Australia (MSA) since its inception in 2001. Destinations of previous expeditions have included the Pilbara, Woomera, and the Mars Desert Research Station in Utah, as well as Arkaroola in South Australia.

The aims of the Arkaroola Mars Robot Challenge are:

1. Test a range of field robotics at Arkaroola with the goal of developing concepts for planetary operations, especially Mars. Participants include Murdoch University (WA), confirmed), University of New South Wakes, Mars Society India, and MSA.

2. Test control of remote robotic and human field operations at Arkaroola from centralised mission control run by Saber Astronautics from a control room in Sydney

3. Explore astrobiological features of the Arkaroola region. These include Proterozoic stromatolites, organicirich, and fossiliferous vein systems, a fossil subglacial radioactive hydrothermal systems, and the Paralana radioactive hot spring. Research will be led by a team from Macquarie University (NSW)

4. Work with teachers from NSW and South Australia, both on the expedition and visiting Arkaroola to better equip them in teaching of science. The expedition is the latest in the Spaceward Bound Australia series with this goal.

5. To stimulate and inspire students and researchers in the disciplines of field robotics, planetary geology, astrobiology, and education through multidisciplinary interaction in the field.

6. Reach out to the public using lectures at Arkaroola and media contacts, emphasising the importance of planetary science, field robotics, and astrobiology to both the Australian and global community.

The expedition will assemble in Adelaide on Friday 4th July and drive in convoy to Arkaroola on Saturday 5th July. On Saturday 19th July the expedition will return to Adelaide and disperse on the 20th July. The expedition is generously supported by CSIRO, the Australia-India Council (Dept. Foreign Affairs and Trade), Saber Astronautics, Paratel, and the Arkaroola Wilderness Sanctuary.

For further information about Mars Society Australia visit http://marssociety.org.au/

For any questions on the expedition please email Expedition Coordinator Dr Jonathan Clarke jon.clarke_AT_bigpond.com (replace _AT_ with @)

Arkaroola has a diverse landscape ideal for field robotics and other space exploration technology research.

Real world trials are essential in the development of field robotics for terrestrial and extraterrestial applications.

Paralana Springs discharges radioactive water at 70 °C and contains a range of extremophiles. It is thus an important site for astrobiological research.

Space-themed programs, such as these space suit trials during MSA's 2011 Pilbara expedition, are ideal for inspiring science teachers and students.