

# PRESS RELEASE – MARS SOCIETY AUSTRALIA

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## MARS ODYSSEY AND MARS SOCIETY AUSTRALIA – THE ‘DOWN UNDER’ CONNECTION

After travelling 200 days and logging more than 460 million kilometres, NASA's Mars Odyssey spacecraft will fire its main engine and put itself into orbit around the Red Planet on Tuesday 23 October (the morning of Wednesday 24 October Australian time). Four days later, members of Mars Society Australia's Jarntimarra science expedition will head off into the Outback, to search for Mars-like environments for future research field sites. "The timing of the two events wasn't intentional," says Mars Society Australia President, Guy Murphy, "But it's interesting to consider the links between Mars Odyssey and the first Jarntimarra scouting expedition in the Red Centre."

"We'll be searching for Martian analogue sites - sites on Earth that possess characteristics similar to environments on Mars – while Odyssey will collect data about the 'real thing'. Both projects will contribute in their own way towards that first step on Mars.

"The analogue sites we find in the Outback, 'virtual' Mars if you like, might eventually be used to test a range of hardware items, technology, strategies and human factors, which could be used in future mission planning. The Odyssey mission will also hopefully provide us with critical data pertaining to human exploration. For example, Mars Odyssey is going to record radiation levels while in low-orbit, quantifying any future radiation risks faced by human beings exploring Mars."

During its orbit, the Mars Odyssey spacecraft will map the basic elements and minerals that are present in the upper centimetres of the Martian surface, in an attempt to observe hydrogen, one of the key elements of the water molecule. It will also look for 'hot spots' such as hot springs, which could serve as prime sites for possible future exploration of Mars.

Professor Malcolm Walter, of Macquarie University and the Australian Centre for Astrobiology, one of the scientists taking part in the Jarntimarra expedition, has been looking at microbial life in high temperature ecosystems on Earth and the search for life on Mars.

"For many years, Australia has been recognised as having sites which are useful analogues to places on Mars," he says.

One of these sites occurs in the Flinders Ranges, South Australia, "where a 300 million-year old hot spring system is being studied. Such sites are being targeted, because it is considered that ancient hot springs on Mars are one of the best exploration targets in the search for life. Mount Painter in South Australia, for example, is an excellent site for conducting simulation experiments. All life that we know of on Earth needs liquid water. If there is still life on Mars, it is probably similar to early life on Earth, microbes known as hyperthermophiles which grow best at temperatures of more than 80°C."

The Flinders Ranges is one of the sites to be visited by the Jarntimarra team over the two week period of their expedition. Other spots include Coober Pedy, where the movie 'Red Planet' was filmed, the Simpson Desert and Oodnadatta.

"Much of the Red Centre is extremely remote," explains Mars Society Australia Technical Director Jason Hoogland. "This provides a fertile environment for a range of scientific activities, including studies in the disciplines of geology, palaeontology, and atmospheric science. With just enough isolation to enforce appropriate Mars-like constraints, yet within relatively ready reach of infrastructure and services, we believe Central Australia provides one of the best free-range Mars analogue field stages in the world."

The Project Jarntimarra expedition, sponsored by U.K. aerospace company Starchaser Industries, departs Adelaide from the South Australian Museum on Saturday October 27 and will return there on Friday November 9. A public forum will be held by Mars Society Australia at Adelaide University the night before departure to discuss exploration of Mars.

"Sending humans to Mars could put beyond doubt the question of whether or not we are alone in the Universe. Australian science, through activities such as Project Jarntimarra, and international missions such as Mars Odyssey, both have their part to play in helping to answer this profound question," says Murphy.

**For more information on the Mars Odyssey spacecraft and mission**, see the JPL press kit :  
[http://www.jpl.nasa.gov/news/press\\_kits/odyssearrival.pdf](http://www.jpl.nasa.gov/news/press_kits/odyssearrival.pdf)

**Media inquiries and requests for interviews regarding Project Jarntimarra should be directed to:** Jennifer Laing, Public Relations Director, Mars Society Australia - ph 0417 135 113 or email: [pr@marssociety.org.au](mailto:pr@marssociety.org.au) **For further information on Mars Society Australia**, visit <http://www.marssociety.org.au>