

Operation Red Centre (ORC) is the flagship of the technical programme for **Mars Society Australia**, an organisation affiliated to the international **Mars Society**. Be part of these exciting projects! MSA, taking you from the Red Centre to the Red Planet...

MARS-OZ



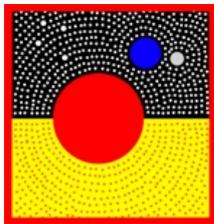
The international **Mars Society** has established a research station on the arctic Devon Island. The facility is designed to be "flight-like", similar to the kind of planetary entry, descent and landing habitats used in leading humans-to-Mars mission plans. These allow realistic simulations, refining mission planning. Three additional stations around the world are planned as part of the Mars-x project, including the **Mars Australian Research Station (Mars-Oz)**. Mars-Oz will allow local and international members to help answer critical questions related to human Mars missions and will raise awareness of the opportunities awaiting at the Red Planet.



In 2000 **Mars Society Australia** was one of three international groups awarded seed funding to develop a "flight-like" Mars rover vehicle to undertake unique mission planning research. **Project Marsupial** is constructing a family of analogue vehicles that will help with the design of future Mars rovers. The **Human Operations Prototype (HOP)** is the first vehicle in the series. The HOP is based on a modified van chassis and focusses on human operations research, with a view to next generation electric hybrid vehicles.



Mars Society Australia is working in cooperation with the **Australian Space Research Institute (ASRI)** to put in place the **Mars Society's** first orbital capability in 2002. This will form a crucial link in the **Store and Forward Mars Analogue Research System**, a global communications network for Mars analogue researchers. **SAFMARS** will allow email communication between isolated locations including Mars Society research stations and the internet. Members of the public will be able to communicate with Mars Society field crews and the system will allow monitoring and control of Mars Society research assets anywhere in the world, year-round.



Mars Society Australia is developing a valuable electronic database containing comprehensive information on Australian sites of interest to Mars researchers around the world. **Project Jarntimarra** (Jarntimarra means "star" in the aboriginal Warlpiri language of central Australia) will also plan and execute field operations in support of **Operation Red Centre**. Jarntimarra involves experts in various scientific disciplines including geology and microbiology, as well as outdoor and 4WD enthusiasts.



Analogue simulation depends on subjecting crew members to the same kinds of constraints expected for human crews on the surface of Mars. A key element of **Operation Red Centre** is therefore a Mars analogue surface suit. **Project Mars Skin** will apply the latest research in such systems to develop realistic Mars suits for use in analogue research activities. There is a particular focus on the Mechanical Counter-Pressure (MCP) suit concept, and we plan to work with the the original NASA designers of the MCP to test analogue systems in Australia.

WE NEED YOUR HELP!

Resources

- Commercial Sponsorship and Monetary Donations
- Donation of Materials, equipment and facilities

Volunteers

- Technical Specialists in a wide variety of areas, including Science, Engineering, IT
- Generalists in a wide variety of areas to assist with fundraising, management and administration
- Enthusiasts with outdoor and/or 4WD experience and equipment

For more information contact: **Jason Hoogland (Brisbane) 0413 00 887** or **(07) 3365 4251** or visit our website,

WWW.MARSSOCIETY.ORG.AU