

## Return to the Moon (RTM) Conference

July 16 - 18, 2004 at the Westin Casuarina, Las Vegas, Nevada

Space Age Publishing Company has had a strong, longstanding commitment to the annual RTM Conference, which is presented through the Space Frontier Foundation. This conference draws American based commercial and private interests, with the objective of establishing a large scale, economically viable, permanent human settlement on the Moon within the next 25 years. RTM enjoys the participation and support of such space exploration visionaries as Captain John Young, Buzz Aldrin, Dr. Harrison Schmitt, Gene Cernan, Dr. Alan Binder, Dr. Paul Spudis, Dr. David Criswell, and Dr. Wendell Mendell. The Conference is a networking forum for attendees and presenters alike. Return to the Moon 5 Conference will be co-chaired by author Andrew Chaikin and Rick Tumlinson, an original founder of RTM. Featured participants include Dr. George Mueller, who led the Apollo program from 1963 - 1969, Captain John Young, Apollo 16 moonwalker, Courtney Stadd, former NASA Chief of Staff, and film director James Cameron. Space Age Publishing Company is a co-sponsor of this event.

## International Lunar Exploratory Working Group (ILEWG) Forum

November 22 - 26, 2004 in Udaipur, India

This public forum is sponsored by the international science community to foster worldwide cooperation in developing a strategy for lunar exploration and utilization. Moving forward in the spirit of the Beatenberg Declaration (1994), this Forum of space agency representatives, team members currently involved in relevant space projects, and interested members of the community, engages in the free exchange of ideas, information, and strategies for a global effort enabling humanity to become a multi-planet species. Space Age Publishing Company has been an active participant within this diverse group, implementing the advancement of the Forum to an annual event. Editor Steve Durst co-chaired ILEWG 5 in Hawaii (2003), stating that, "The number one goal of the conference is to see people on the Moon within the decade. To kick-start that objective, a strategy to be presented is planting on the lunar surface an initial astronomical capability. That first element would later be serviced and upgraded by 'astronomer technicians', as would a build-up of other observational gear." ILEWG 6, sponsored by the International Lunar Exploratory Working Group, Physical Research Laboratory, Indian Space Research Organization, and European Space Agency, will take place November 22-26, 2004 in Udaipur, India.

## Resources / References / Directions

**The Moon Society:** Non-Profit formed to further research and development of the Moon

**Kavli Foundation:** Philanthropic supporter of Stanford astrophysics and cosmology research

**SETI Institute:** Search for extraterrestrial life may be aided by lunar radio telescope

**Stanford Dish:** Source for extraterrestrial life may be aided by lunar telescope

**Stanford Sophomore Seminar:** Suggested to introduce lunar project to Stanford University

**Stanford On The Moon Symposium:** October 2, 2004, 09:00 - 11:30 at Stanford; Please RSVP



## TrailBlazer<sup>TM</sup> TransOrbital

**Status:** Fully licensed; launch December 2004, pending final funding in the low millions

**Project:** TrailBlazer will be the first commercial venture to reach the Moon. Space Age Publishing Company has worked closely with TransOrbital in defining the mission and goals of TrailBlazer, including the orbiter aspect of the mission and video relay of EarthRise imagery. Lunar Enterprise Corporation, Space Age Publishing Company's developmental arm, holds a financial interest in the project. TransOrbital has obtained the first issued licensing by the U.S. State Department and N.O.A.A. (National Oceanic and Atmospheric Administration) in preparation for the Moon mission.

TrailBlazer will be launched into low-Earth orbit utilizing the Dnepr commercial launch vehicle from Baikonur Cosmodrome, Kazakhstan. After separating from the launch vehicle, TrailBlazer will stabilize using on-board sensors and fire a solid fuel booster to move into Lunar Transfer Orbit for approximately 5-8 days. The spacecraft will then enter a circular orbit at 50km altitude to gather a high resolution (4meters/pixel) image atlas of the lunar surface. This will be the most comprehensive mapping of the lunar surface to date. TrailBlazer will relay video to Earth, on a live feed, that will feature the EarthRise image on a regular, continuous basis. These promise to be the most inspirational and stunning views of the Moon and the Earth to date. The images will be widely marketed to foster education and public awareness of lunar exploration. Following the mapping phase, TrailBlazer's orbit will be lowered to a 10km altitude to capture images of the Apollo and Lunakhod landing sites, as well as "fly over" imagery of the lunar terrain and polar regions. The mission will culminate in a freefall descent and impact the lunar surface at a prearranged location, safely away from historic sites. During the freefall phase, TrailBlazer will transmit exciting barnstorming images right through the moment of impact.



## Lunar Dish Observatory

### SpaceDev

**Status:** Detailed proposal and plans obtained; fabrication and launch date pending further funding; NET July 2006

**Project:** Commissioned by Lunar Enterprise Corporation, the developmental arm and wholly owned subsidiary of Space Age Publishing Company, the Lunar Dish Observatory and Study was designed, according to SpaceDev's philosophy of elegant simplicity, as a near term, highly efficient, low-cost lunar mission with a meaningful scientific, astronomy payload. Every type of lunar based astronomy is far superior

to Earth based astronomy due to the diffuse atmosphere, stable surface, low gravity, and significantly lower levels of electromagnetic manmade noise. The Lunar Dish Observatory also would offer unparalleled advantages for SETI type research, Earth observation, and detection of Earth approaching objects. The SpaceDev Lunar Observatory consists of a 2-3 meter rigid dish antenna with a COTS receiver qualified for space use, and a pedestal with crush structure and shock absorber fitted legs. The project will launch from Baikonur into a 300 km circular orbit via a Dnepr. The spacecraft will then fire a Star 48 solid motor to insert into a phasing orbit of approximately five days, awaiting lunar alignment. The SpaceDev hybrid motor, which is currently being utilized by Scaled Composites and the U.S. Air Force, will then move the spacecraft to insert to TLI. The Lunar Dish Observatory will then move into a lower orbit and execute a soft landing on the lunar surface in a location carefully chosen to maximize utilization of the project's capabilities.