SPECIAL EDUCATOR OPPORTUNITY

NASA/ASU National Remote Sensing Teacher Institute
And NASA/ASU Mars Education Program Hands-On Workshop

Dates: February 23 – 25, 2006

Sponsored by NASA, ASU Mars Space Flight Facility and the ASU Mars Education Program

Cost: $50

Grade Levels: Teachers - 5th - College

Overview of Institute, Field Trip and Hands-on Workshop:
This institute will have three main educational goals for teachers:

1) To help teachers understand the process of science (using current Mars exploration as the primary example);
2) To show how scientists can compare rocks and minerals on terrestrial planets (such as Earth and Mars) to learn about the history of the planet; and
3) To highlight the methods in which scientists can interpret data they collect through remote sensing methods (e.g., spacecraft at Mars).

Dr. Phil Christensen will be leading this institute and is a proponent of connecting space scientists and educators together to create unique, world-class learning experiences. He is an ASU Regents Professor and a world-renowned Mars scientist. He has a great talent for making scientific concepts understandable and useful for classroom teachers. He is the Principal Investigator of four instruments currently at Mars. These instruments include the Thermal Emission Spectrometer (TES) onboard the Mars Global Surveyor spacecraft, the Thermal Emission Imaging System (THEMIS) camera onboard the Mars Odyssey spacecraft and two Mini-Thermal Emission Spectrometers (Mini-TES) instruments onboard the Mars Exploration Rovers. Dr. Christensen has more instruments at Mars than any other scientist in the world and studies the rocks and minerals on Mars.

The Mars Space Flight Facility Staff and the ASU Mars Education Program have combined a power-packed three-day agenda that includes:

Day 1 - Dr. Christensen and his remote sensing staff will provide a full day of classroom instruction on the fundamentals of remote sensing (collecting data from orbit around a planet). Each participant will receive a notebook full of information and classroom materials that will help you to relate this experience and knowledge to your students.

Day 2 - Dr. Christensen will lead a field trip to one of the most geologically diverse areas on Earth. (**NOTE**: some hiking will be necessary during the field trip and institute applicants should be able to participate in all aspects of the program.)

Day 3 - Participants will attend the regional ASU Mars Education Program Workshop.

This culminating event will include keynote speakers sharing the latest and most current discoveries at Mars and hands-on activity sessions, which will demonstrate the *Standards-aligned* science, technology, engineering, and mathematic (STEM) classroom activities.

Participant requirements:

1) Approved application for workshop;
2) Willing to participate in all 3 days of workshop/field trip; and
3) Ability to hike in field terrain (The terrain is not too difficult, but does involve some mountains and hill hiking. Hiking boots will be required because of cacti in the area).

Cost: A $50 workshop fee will provide participants with a workshop/field manual, field trip transportation, and lunch on the day of the field trip.

In addition to the $50 workshop fee, participants will be responsible for the following costs:

1) Transportation to and from Arizona State University in Tempe, AZ (nearest airport is located a short distance away in Phoenix, AZ);
2) Lodging (Approx. $75.00 - $100/night plus tax depending on hotel choice – It might be possible to share a room and split cost or check with other nearby hotels that could be less expensive);
3) Meals; and
4) Parking on campus if driving ($8.00/day for 2/23 and 2/24 – Saturday will be free).

The workshop schedule starts promptly at 8:00am on Thursday, February 23rd and ends at 5:00pm on February 25th. Flights should be scheduled to arrive no later than Wednesday night – February 22nd and depart from Sky Harbor airport (in Phoenix) no earlier than 7:00pm on Saturday, February 25th to guarantee all participation requirements can be met.

Ideas for funding: School professional development funds, state-based Space Grant Consortium, local service clubs (Kiwanis, Rotary, etc.), district professional development funds, or personal funds.

How to apply: The National Remote Sensing Teacher Institute (which includes the field trip) will be limited to 35 educators. Applications will be evaluated on the basis of how the teacher will utilize and relate this experience to their teaching and curriculum. Please submit the following information:

1) Name, address, phone, fax, and e-mail on form included on the next page.
2) Current grade level you are teaching (this workshop is most appropriate for classroom teachers who include teaching of scientific process, geology, earth science, rocks and minerals, or remote sensing in their curriculum);
3) A short description of how this information will be used in your classroom instruction (one page or less); and
4) Ability to cover funding of trip.

APPLICATION

____ I AM APPLYING TO ATTEND the Feb. 23 – 25, 2006 ASU National Remote Sensing Teacher Institute / Field Trip and Mars Educator Workshop at Arizona State University, Tempe, AZ. I can cover the expenses listed (transportation to Arizona, lodging, parking and meals.)

____ I cannot attend, but please put me on the mailing list for future announcements and K-12 education opportunities.

Teacher Name:

Home Address:

Home Phone Number:

School Name:

School Address:

Work Phone Number:

Fax Number:

Grade(s) / Subject(s) Taught:

Email:

Provided a short description of how you will use this information in your classroom (a page or less is fine):

Deadline for applications: Please fax, mail, or e-mail your application by 2-20-05. Please be aware, the National Remote Sensing Institute will be limited to 35 educators and might fill before final deadline date.

Applications or inquiries may be e-mailed, faxed, or mailed to:

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