

exploration science resources commerce

LEAG Activity Report



Planetary Sciences Subcommittee

October 2, 2008

Lunar Exploration Roadmap.
LEAG Meeting.
Lunar Science Conference



LEAG Meeting 2008

October 28-31, 2008
(won't coincide with LRO launch!).

Joint with ILEWG and SRR.

Radisson Resort at the Port, in Cape Canaveral, Florida.

Plenary and concurrent sessions - focused on questions pertinent to achieving the "vision" - similar to the last LEAG meeting.

Final announcement and the program is out.



LEAG Meeting 2008



Themes

LEAG: Sustainable Moon.

ILEWG: International Moon.

SRR: Productive Moon.

Highlights

Lunar Google X-Prize Team presentations.

Special Session: Kaguya, Chang'e-1, Chandrayaan-1, LRO.

Sessions focused around key questions relevant to the community and lunar exploration.



LEAG Meeting 2008

Day 1: PLENARY

What pathways need to be developed/obstacles overcome to enhance the implementation of the GES?

Space Agency Reports (status of upcoming missions, priorities for proposed robotic exploration).



LEAG Meeting 2008



Day 2 - Morning

Defining the path for human return to the Moon:
What technologies need to be developed now for human return to the Moon (and beyond), and
What are the critical elements for robotic development, habitats, and hazard prevention?

Day 2 - Afternoon

What technologies need to be developed now for human return to the Moon (and beyond)?

What are logical architectures/open implementation to allow effective integration of international elements?

What are the critical elements for robotic development, habitats, and hazard prevention?



Joint CAPTEM/LEAG Initiative

CAPTEM/LEAG Initiative of Lunar Sample Acquisition, Documentation, and Curation.

More in the CAPTEM report.



LEAG/OSEWG Cooperation

Better communications/cooperation initiated.



Lunar Science Conference
July 20-23, 2008
NASA-AMES

LEAG had afternoon session on Tuesday 22 July.

Presentations from key SATs:

Chip Shearer, Mike Wargo, Jim Spann (Theme 1);
Clive R. Neal & Steve Mackwell (Theme 2);
Mike Duke, Jerry Sanders, Paul Eckert (Theme 3).

Breakout sessions for community input - successful.

Input was wrapped into Roadmap development.



Exploring the Moon in the 21st Century: Themes, Goals, Objectives, Investigations, and Priorities, 2008

A Community Effort Coordinated by
the Lunar Exploration Analysis Group



Themes: Why are we going to the Moon?

Theme 1: Pursue scientific activities to address fundamental questions about the solar system, the universe, and our place in them.

Theme 2: Use the Moon to prepare for future missions to Mars and other destinations.

Theme 3: Extend sustained human presence to the Moon to enable eventual settlement.

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Exploring the Moon in the 21st Century: Themes, Goals, Objectives, Investigations, and Priorities, 2008



A Community Effort Coordinated by the Lunar Exploration Analysis Group

Mike Duke	Univ. Colorado	Paul Neitzel	Georgia Tech.
John Gruener	JSC	Jerry Sanders	JSC
Jeff Jones	JSC	Chip Shearer	Univ. New Mexico
David Kring	LPI	Jim Spann	MSFC
Dan Lester	Univ. Texas	Paul Spudis	LPI
Steve Mackwell	LPI	Jeff Taylor	Univ. Hawaii
Peter Mouginis-Mark	Univ. Hawaii	Jeff Volosin	Honeywell
Clive Neal	Notre Dame	Mike Wargo	NASA HQ



**Sept. 3-5 (pre-IKE!)
Lunar & Planetary Institute**

Telecon:
Paul Eckert Boeing
Kelly Snook NASA HQ

(Back) To The Moon!

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LEAG Report to the PSS: October 2, 2008

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LEAG Report to the PSS: October 2, 2008

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LEAG Report to the PSS: June 23, 2008

LEAG Meeting 2008



Day 3 - Morning

LEAG: What are the needs and advantages of robotic missions for advancing lunar science and how can they benefit human exploration?

ILEWG: What are the priorities and methods for robotic precursors for engineering or operations preparations (e.g., excavating, drilling, protection, etc.)?

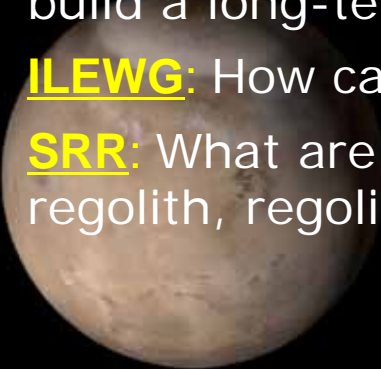
SRR: What types of precursor lunar surface experiments are highest priority for space settlement and commercial development?

Day 3 - Afternoon

LEAG: How can human-robotic partnerships be used to develop and build a long-term presence on the Moon?

ILEWG: How can future lunar surface activities be optimised?

SRR: What are the challenges in drilling on planetary surfaces, in regolith, regolith-ice mixtures, rock, and at ultra-low temperatures?



LEAG Meeting 2008



Day 4 - Morning

LEAG: What technologies need to be developed now in order to be ready for human return to the Moon (and beyond)?

ILEWG: What are the critical elements for robotics development, habitats, hazard prevention?

SRR: How would ISRU fit into an extensive scientific and commercial robotic installation before human settlement?

Day 4 – Afternoon. PLENARY

Session Reports, ILEWG declaration, LEAG summary findings, etc.



2nd Announcement within two weeks.