

Report of the Lunar Exploration Analysis Group Themes, Objectives, and Phasing Specific Action Team (LEAG TOP-SAT)

Phase 1: Themes and Objectives

A Specific Action Team of the Lunar Exploration Analysis Group has reviewed the themes and objectives for lunar exploration. Comments are in the attached word document (LEAG_TOP-SAT_LunarExplorationThemes_7-23-06.doc) and excel spreadsheet (LEAG_TOP-SAT_LunarExploration Objectives-7-23-06.xls).

Notes:

Themes:

SAT members approved of the themes as stated, but there was some concern about whether they should be called "goals" and whether the cross-cutting themes are really benefits of exploration rather than themes. We added some extra text to the descriptions of the themes to be sure their full meaning was clear. The only major suggestion we have is to switch the positions of the first theme (prepare for Mars) with the third theme (lunar settlement), and the attached document reflects that suggestion. Although the themes were not listed in priority order, it seems sensible for the lunar exploration goals to begin with a lunar theme.

Procedures:

SAT members were given the opportunity to comment on the themes and objectives via a website hosted by the LPI. Members reviewed each other's comment before a series of 1-2 hour telecons in which the categories (tabs on the spreadsheet) were systematically discussed. We explain the edits in the last column and highlight in red which objectives we recommend for deletion. In most cases where we suggest deletion we combined an objective with another. In one category, extensive additional text is highlighted in red, but we did not do this systematically.

Commerce:

TOP-SAT did not make any comments on the commerce category because it is being reviewed by a group designed for that purpose. We did, however, carefully assess if any of the objectives related to the commerce theme. We also suggested changes in some of the objective names that indicated that commerce should be used for some purpose, such as resource extraction. While agreeing with this concept, we suggest emphasizing the role of commerce in the summary, and having the name indicate the function only. This is explained in the last column (explanation for edit).

Earth observations:

It turned out that the TOP-SAT earth science team was not available for discussions because of other commitments (including field work). We did discuss the topic, however, and there was broad agreement on the goals expressed in the single objective listed, and that this objective could be split into several others. The Moon offers an opportunity to make global observations of the Earth's atmosphere (dynamics and composition) and magnetosphere. The Earth Science Subcommittee of the NASA Advisory Council is developing a list of objectives for lunar-based Earth observations.

Law and policy:

We discussed and agreed to a new category with its own set of objectives, law and policy. These issues are crucial to commercial development. The team members expert in this did not

have time to devise the objectives within our schedule, but we hope to be able to forward that to NASA when it is available.

Members:

Name	Affiliation
Jeff Taylor, Chair	U. Hawaii
Steve Mackwell, Co-Chair	Lunar and Planetary Inst.
Kevin Greene	Am. Soc. Civil Eng.
Larry Taylor	U. Tennessee
Paul Spudis	APL
Ben Bussey	APL
Mike Duke	Consultant
Mark Robinson	Arizona State Univ.
Brad Jolliff	Washington Univ. in St. Louis
Leslie Gertsch	U. Missouri Rolla
Ariel Anbar	ASU
David Carrier	Lunar Geotechnical Inst.
Howard McCurdy	American Univ.
Aileen Yingst	U. Wisconsin Greenbay
Jim Blacic	Private Consultant
Brad Blair	Colorado School of Mines
Tony Ricco	Stanford U.
Chris Culbert	NASA JSC
Jen Rochlis	NASA JSC
Jerry Sanders	NASA JSC
Bill Larson	NASA KSC
Kurt Sacksteder	NASA GRC
Dennis Grounds	NASA JSC
John Charles	NASA JSC
Don Bogard	NASA JSC
Noel Hinnens	Independent
Jim Head	Brown U.
Sherrie Klug	ASU
Stephanie Shipp	Lunar and Planetary Inst.
Norm Sleep	Stanford
Wayne White	Self-employed Attorney
Marc Postman	STScI
Alan Dressler	Carnegie Inst. of Washington
Sam Lawrence	U. Hawaii
Rob Landis	NASA JSC
NASA HQ:	
Mike Wargo	NASA HQ
Jeff Volosin	NASA HQ
George Tahu	NASA HQ

Name	Affiliation
Tom Morgan	NASA HQ
Lisa Guerro	NASA HQ
Bob Wegeng	NASA HQ