COMMITTEE ON THE PEACEFUL USES OF OUTER SPACE
Scientific and Technical Subcommittee
Forty-third session
Vienna, 20 February - 3 March 2006
Agenda item 9
Use of Nuclear Power Sources in Outer Space

JOINT UNITED NATIONS/INTERNATIONAL ATOMIC ENERGY AGENCY TECHNICAL WORKSHOP ON THE OBJECTIVES, SCOPE AND GENERAL ATTRIBUTES OF A POTENTIAL TECHNICAL SAFETY STANDARD FOR NUCLEAR POWER SOURCES IN OUTER SPACE (VIENNA, 20-22 FEBRUARY 2006)

Session 1. BACKGROUND

Presentation on “Ongoing, Planned and Currently Foreseeable Nuclear Power Source (NPS) Applications in Outer Space and Their Scope and Rationale”

Note by the Secretariat

1. In accordance with paragraph 16 of General Assembly resolution 60/99 of 8 December 2005, the Scientific and Technical Subcommittee of the Committee on the Peaceful Uses of Outer Space will organize, jointly with the International Atomic Energy Agency, a technical workshop on the objectives, scope and general attributes of a potential technical safety standard for nuclear power sources in outer space, to be held in Vienna from 20 to 22 February 2006.

2. The presentation contained in the present conference room paper was prepared for the joint technical workshop in accordance with the indicative schedule of work for the workshop, as agreed by the Working Group on the Use of Nuclear Power Sources in Outer Space during the intersessional meeting held in Vienna from 13 to 15 June 2005 (A/AC.105/L.260).
Ongoing, Planned and Currently Foreseeable Nuclear Power Source (NPS) Applications in Outer Space and Their Scope and Rationale

Presented by Mr. R. Wilcox
United States of America (NASA/JPL)
February 20, 2006
Amidst a Scientific Revolution...

- Ice Age Mars
- Lunar South Pole
- Europa
- Triton
- Titan
- Early Universe
- Salty Seas on Mars

Energy to Explore New Worlds!
Energy for Human Outposts
Mars: A Complex Planet

Comparative Planetology

Climate Change

Surface Layering

Atmospheric Processes

Surface Composition

Subsurface Reservoirs

Today we are limited by WHERE we can go...

Meridiani Planum

Gusev Crater

MSL

Where we landed our two MER vehicles... safe with good science value
“Treasure Trove” — Opportunity view of bedrock outcrop

LIGHTBULB-scale Power

Spirit at the Columbia Hills

What if we did NOT have the mobility we built into MER...?

No Mobility, no breakthru science

Where we might need to go...

Dusty, cold, bizarre... Energy to Adapt... Discover and Understand!
Energy to Protect the Planet