ATOMIC WINGS

Lunch & Learn

Presented by the Space Foundation
A bipartisan educational series focusing on securing the economic, safe, clean, reliable nuclear future

TO MARS AND BEYOND:

HOW NUCLEAR ENERGY POWERS DEEP SPACE MISSIONS

OCTOBER 10

11:30 a.m.  Registration, Networking, Lunch

12:00 p.m.  PROGRAM

PANEL FACILITATOR

Thomas Dorame, Vice President of Washington Strategic Operations
The Space Foundation

PANELISTS

Jason Callahan, Space Policy Advisor
The Planetary Society

Joe Cassady, Executive Director for Space Programs, Washington Operations
Aerojet Rocketdyne

Tracey Bishop, Deputy Assistant Secretary for Nuclear Infrastructure Programs
U.S. Department of Energy, Office of Nuclear Energy

1:00 p.m.  CONCLUSION

Join us for our next lunch and learn on November 28

For More Information Contact:
Michelle Harstine at michelle.harstine@nuclear.energy.gov
POWERING DEEP SPACE MISSIONS

Radioisotope power systems are capable of producing heat and electricity under the harsh conditions encountered in deep space for decades without any maintenance.

RADIOISOTOPE POWER SYSTEMS

- Convert heat from the decay of plutonium-238 into electrical power
- Provide up to 300 watts of electrical power, historically
- Powered 27 U.S. missions with 46 RPS

NUCLEAR FACILITIES INFRASTRUCTURE

The U.S. Department of Energy maintains the infrastructure to develop, manufacture and test radioisotope power systems for space exploration.

- OAK RIDGE NATIONAL LABORATORY: Materials & Hardware
- LOS ALAMOS NATIONAL LABORATORY: Purify & Encapsulate Pu-238
- IDAHO NATIONAL LABORATORY: Assembly/Test & Delivery

EXPLORING THE UNIVERSE

- CURIOSITY ROVER
  - Launched: November 26, 2011
  - Landed on Mars: August 6, 2012
- NEW HORIZONS SPACECRAFT
  - Launched: January 19, 2006
  - Flyby of Pluto and the Kuiper Belt
- CASSINI
  - Launched: October 15, 1997
  - Orbed Saturn and its moons

WHAT’S NEXT

NASA and DOE are working with others to further develop the use of uranium-powered microreactors for future space applications.