

AT®MIC 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

Join us for our next lunch and learn on November 28

SPACE FOUNDATION

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

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 Orbited 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.