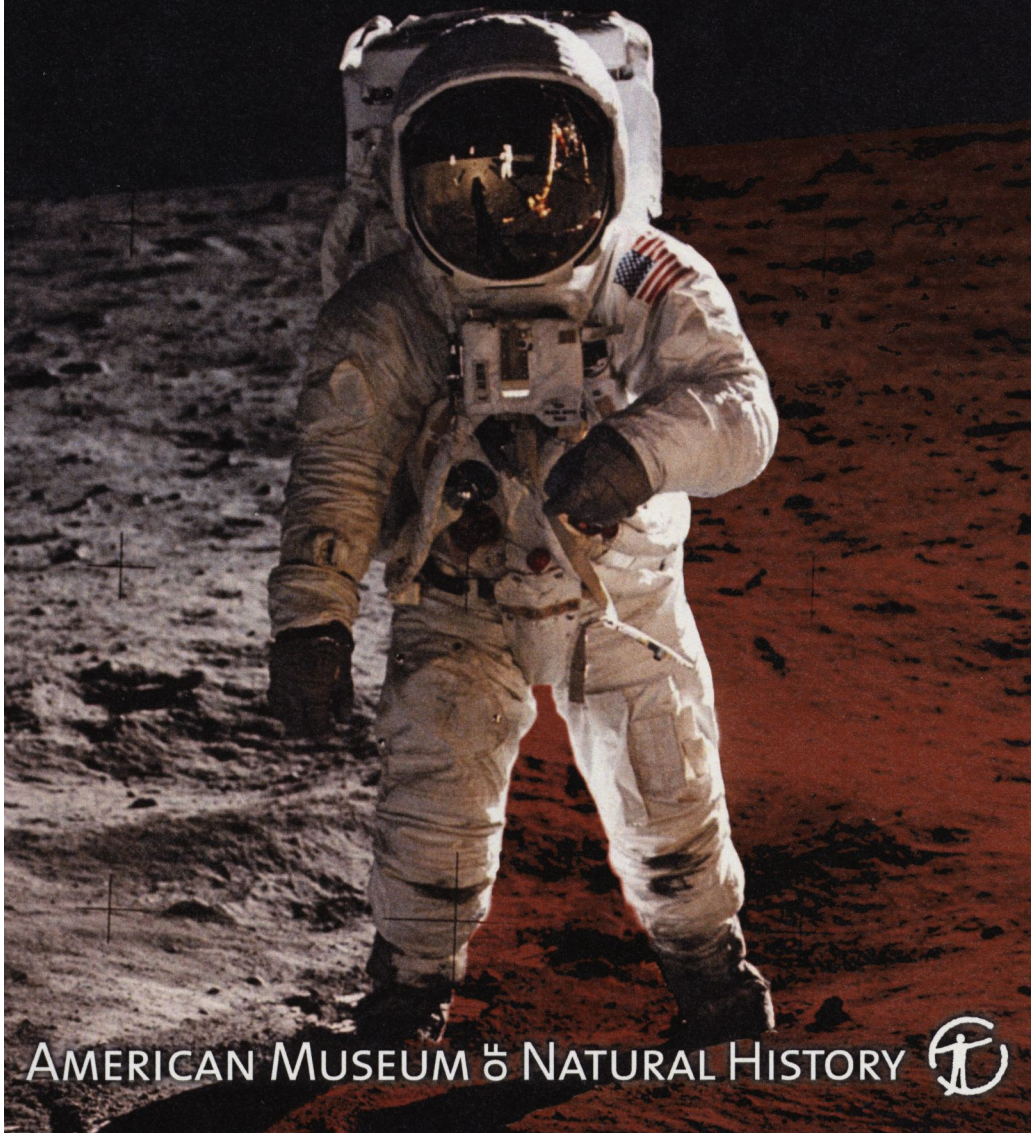


# Hayden Planetarium ISAAC ASIMOV MEMORIAL DEBATE

MOON, MARS AND BEYOND:  
WHERE NEXT FOR THE MANNED SPACE PROGRAM?

Samuel J. and Ethel LeFrak Theater • Monday, March 15, 2010 • 7:30 pm



AMERICAN MUSEUM OF NATURAL HISTORY





## **MOON, MARS AND BEYOND: WHERE NEXT FOR THE MANNED SPACE PROGRAM?**

One of the hottest topics of recent years for the manned program at NASA is whether the agency should return to the Moon or proceed straight to Mars.

Central to the subject are thorny issues that relate to science, launch hardware, international competition, national security, shrinking budgets, and political will.



# **TONIGHT'S PROGRAM**

**Welcome and Introduction**

**Opening Questions**

**Directed Free Debate Among Panelists**

**Questions from Audience**

**Adjournment**

**Book Sale/Book and Program Signing**  
**(Hall of Northwest Coast Indians)**



## PARTICIPANTS

### Panelists

#### Kenneth Ford, Institute for Human & Machine Cognition

Kenneth Ford is a computer scientist with research interests in artificial intelligence, cognitive science, human-centered computing, and entrepreneurship in government and academia. He is the author or coauthor of hundreds of scientific papers and six books. Dr. Ford has received many fellowships, awards, and honors. *Florida Trend* magazine recently named him one of Florida's four most influential citizens working in academia. He has served on the National Science Board and the Air Force Science Advisory Board. In 2007, he became a member of the NASA Advisory Council and in October 2008, he was named chairman.

#### Lester Lyles, United States Air Force (Ret)

In 1987, General Lester Lyles was the program director for the Medium Launch Vehicle program and other Expendable Launch systems as part of the post-Challenger disaster launch recovery efforts. In 1992 he became vice commander of Ogden Air Logistics Center, Hill Air Force Base, Utah and then served as commander of the Space and Missile Systems Center at Los Angeles Air Force Base, Calif., until 1996. General Lyles became the director of the Ballistic Missile Defense Organization in 1996. In May 1999, he was assigned as vice chief of staff of the United States Air Force. In April 2000, he became the commander of Air Force Materiel Command, Wright-Patterson Air Force Base, Ohio.

#### Paul Spudis, Lunar and Planetary Institute

As senior staff scientist, Paul Spudis specializes in research on the processes of impact and volcanism on the planets and sustainable human presence on the Moon. He has served on numerous advisory committees to the government on lunar space activities, including the 2004 President's Commission on the Implementation of U.S. Space Exploration Policy. He was deputy leader of the Science Team for the Department of Defense Clementine mission to the Moon in 1994 and principal investigator of an imaging radar experiment on the Indian Chandrayaan-1 mission in 2008-2009.

## Steven Squyres, Cornell University

Steven Squyres is Goldwin Smith Professor of Astronomy at Cornell University and is a principal investigator on the Mars Exploration Rover Project (MER). Dr. Squyres has participated in many of NASA's planetary exploration missions. His main areas of scientific interest have been Mars and the moons of the outer planets. His research includes study of the history and distribution of water on Mars and of the possible existence and habitability of a liquid water ocean on Europa. Along with his current work on MER, he is also a co-investigator on the 2003 Mars Express, 2005 Mars Reconnaissance Orbiter, and 2009 Mars Science Laboratory missions.

## Robert Zubrin, Mars Society

Robert Zubrin, formerly a staff engineer at Lockheed Martin Astronautics in Denver, is now president of his own company, Pioneer Astronautics. He is the inventor of several unique concepts for space propulsion and exploration, and the author of over 200 published technical and non-technical papers in the field as well non-fiction books and, most recently, the science-humor guidebook *How to Live on Mars*. He founded the Mars Society, an international organization dedicated to furthering the exploration and settlement of Mars by both public and private means. In that capacity, he personally led the construction and operation of a human Mars exploration training station on Devon Island, an uninhabited island in the Canadian Arctic 900 miles from the North Pole.

## Host and Moderator

### Neil deGrasse Tyson

Frederick P. Rose Director of the Hayden Planetarium

An astrophysicist with the American Museum of Natural History, Tyson was born and raised in New York City, where he attended public schools and graduated from the Bronx High School of Science. He earned his B. A. in physics from Harvard and his Ph.D. in astrophysics from Columbia. Tyson has served on White House commissions to study the future of the U.S. aerospace industry and to implement the U.S. space exploration policy. Tyson is author of nine books, most recently *The Pluto Files* and *The New York Times* bestseller *Death By Black Hole*. Tapped frequently by the news media for his comments on the universe, Tyson also hosts the PBS TV series "NOVA scienceNOW."

Follow him on Twitter @neiltyson.



*The late Dr. Isaac Asimov, one of the most prolific and influential authors of our time, was a dear friend and supporter of the American Museum of Natural History.*

*In his memory, the Hayden Planetarium is honored to host the annual Isaac Asimov Memorial Debate, generously endowed by relatives, friends, and admirers of Isaac Asimov and his work, bringing the finest minds in the world to the Museum each year to debate pressing questions on the frontier of scientific discovery.*

*Proceeds from ticket sales of the Isaac Asimov Memorial Debates benefit the scientific and educational programs of the Hayden Planetarium.*

#### Previous Debates

2009 From Planets to Plutoids  
2008 Mining The Sky  
2007 The Pioneer Anomaly  
2006 Universe: One or Many?  
2005 The Enigma of Alien Solar Systems  
2004 The Dark Side  
2003 The Big Bang  
2002 The Search For Life In the Universe  
2001 The Theory of Everything



The 2010 Isaac Asimov Memorial Debate is presented, in part, in commemoration of the 10th anniversary of the opening of the Frederick Phineas and Sandra Priest Rose Center for Earth and Space and the 75th anniversary of the opening of the original Hayden Planetarium. Throughout 2010, the Museum will continue to offer related programming and events.

Learn more about Hayden Programs at  
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(212) 769-5901

To add your name to the Hayden Planetarium's star-struck e-list for sky phenomena and Hayden events, send a blank e-mail to [star-struck-join@lists.amnh.org](mailto:star-struck-join@lists.amnh.org).