



Hampton Roads Area



HRA INCOSE Chapter July 2008 Meeting:

Presentation:

Past, Present, and Future of Mars Exploration

Presented by: **Jill Prince**

Where: **Captain George's**

When: **July 9, 2008**

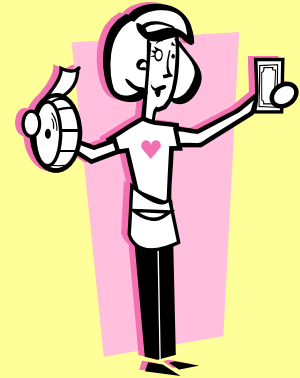
Time: **5:30-6:00 Social**
6:00-7:00 Dinner
7:00-8:00 Presentation

Payment: Pay at the Restaurant

RSVP : Figen Baysal (figenbaysal@cox.net) by July 8th



Hampton Roads Area



Come Join us for a fun and Educational night
&

Win prizes!

We will have a drawing and a lucky guest will win \$25
gift card



Jill Lynette Hanna Prince
Atmospheric Flight and Entry Systems Branch

Ms Prince received a B.A. degree in Physics and Astronomy from Northwestern University in 1999. She immediately relocated to Hampton Roads and earned a M.S. degree in Mechanical Engineering from The George Washington University in 2001. Currently, Ms. Prince is an Aerospace Engineer in the Atmospheric Flight and Entry Systems Branch at NASA's Langley Research Center. Her primary area of expertise is atmospheric flight mechanics, and during the course of her short career to date she has played key roles and made significant contributions to several of NASA's Mars mission spacecraft. Most recently, she was responsible for the entry, descent, and landing simulation of the Mars Phoenix spacecraft that safely reached the surface of Mars on May 25 2008. Previously, she served as the Langley flight mechanics lead for the Mars Reconnaissance Orbiter (MRO) aerobraking operations team and provided extensive flight mechanics and mission simulation analyses for the aerobraking phase of flight. She was the recipient of the NASA Exceptional Achievement Medal for her work supporting the MRO aerobraking development and flight operations. Prior to MRO, she was a member of the LaRC Mars Odyssey aerobraking team, and she also supported the Mars Exploration Rover (MER) Entry, Descent, and Landing (EDL) Flight Mechanics Team, and helped successfully land the Spirit and Opportunity rovers on the surface on Mars by providing an independent verification and validation of the primary mission simulation used for the EDL phase of the Mars Explorations Rovers. In addition to Mars exploration projects, Ms. Prince has supported multiple NASA and external agency planetary mission studies and proposal efforts including Mars, Venus, Titan, and Earth-entry Lunar sample return vehicle proposals.

Ms. Prince is currently serving as the acting Assistant Branch Head in the Atmospheric Flight and Entry Systems Branch at NASA Langley Research Center.

Abstract

- In the quest for life on other planets, Mars has been a keystone in the foundation of planetary exploration. Historically, Mars has been a formidable destination and sending robotic pioneers to the planet has been extremely challenging. Since the first launch in the mid 1960's, less than half of the attempts to reach Mars have been successful. In the past decade Mars delivery efforts have attempted to change those statistics, including the most recent successful landing of the Mars Phoenix on May 25, 2008. Similar to any mission to extraterrestrial planets, Phoenix had many obstacles to overcome. Like all other Mars entry, descent, and landing missions, engineers and scientists had to wait through the "7 minutes of terror" before determining mission success. The Phoenix entry, descent, and landing was successful and continues to pave the way for future exploration of Mars and other planets.

Address: 2710 W Mercury Blvd, Hampton, VA 23666

Phone: (757) 826-1435

Directions from Williamsburg:

1: Merge onto I-64 E toward NEWPORT NEWS.

2: Merge onto US-258 S/ W MERCURY BLVD via EXIT 263 toward JAMES RIVER BR. 1.2 mi

3: End at 2710 W Mercury Blvd Hampton, VA 23666-3108



<http://maps.google.com/maps?f=q&hl=en&geocode=&q=2710+W+Mercury+Blvd%3F+Hampton,+VA+23666&sl=37.0625,-95.677068&sspn=47.435825,76.640625&num=10&ie=UTF8&ll=37.036441,-76.406758&spn=0.047001,0.074844&z=14&iwloc=add>

Directions from South Side:

1: Take I-64 W toward RICHMOND/ HAMPTON

2: Merge onto US-258 S/ W MERCURY BLVD via EXIT 263A toward JAMES RIVER BR. 1.4 mi

3: End at 2710 W Mercury Blvd Hampton, VA 23666-3108

