

BCC launches lecture series with Kennedy leaders

By Kay Grinter
Spaceport News

The Space and Astronomy Lecture Series at the Brevard Community College Planetarium and Observatory "launched" Sept. 4 with the assistance of a very experienced team from Kennedy Space Center.

The first lecture of the 2009-10 academic year was conducted, appropriately, by Bob Cabana, center director; Russell Romanella, director of International Space Station and Spacecraft Processing; and Jon Cowart, deputy mission manager for Ares I-X. About 300 people filled the lecture room to capacity despite it being a rainy evening.

Romanella spoke first, leading into the topic "Moon, Mars and the Stars: The Constellation Program and the Future of Space Exploration." A slide show illustrated his historical perspective on the first



NASA/Ben Smegelsky

Ares I-X Deputy Mission Manager Jon Cowart, left, Kennedy Space Center Director Bob Cabana, and International Space Station and Spacecraft Processing Director Russell Romanella were panelists at the "Moon, Mars and the Stars: The Constellation Program and the Future of Space Exploration" event at Brevard Community College on Sept. 4.

ventures by the Chinese into the uncharted regions of our planet. Although the ships in the Chinese fleet were larger and more impressive than those of Christopher Columbus, they were burned once the voyages were complete.

"If we can land a man on the moon, why can't we

figure out a way 'not' to burn our ships?" Romanella challenged his listeners.

Cowart impressed the audience with images of the towering 327-foot Ares I-X -- nearly twice the height of the space shuttle and currently the tallest rocket in the world -- as it was being assembled in a Vehicle As-

Take a look

Find out more about the Brevard Community College Planetarium and Observatory at:
www.brevardcc.edu/planet/

sembly Building high bay.

An audible "wow" rose from the audience when he revealed that the flight test is on track for Oct. 31 and that the vehicle will go supersonic straight up in 39 seconds, faster than a Corvette can move on flat ground.

"Constellation is about going and exploring," Cowart said as he displayed images taken around the solar system. "What I can't wait to see is this picture, sometime in the future, with a silhouette of astronauts standing looking at the sunrise on Mars. It's really what I'm living for."

Cabana rounded out the

lecture by relating some of his personal experiences as a student and an astronaut, pointing out that he did not gain entry to military flight training or the astronaut corps on his first attempts. He encouraged the students present not to let obstacles cause them to abandon their goals.

"It is our destiny to explore," he told them.

A question-and-answer period followed with the audience broaching topics ranging from the prospect of international cooperation in future NASA projects to methods of stimulating the study of mathematics and the sciences in today's elementary schools.

The free public lecture series will continue on the second Friday of selected months at the planetarium on the college's Cocoa campus. The next lecture, "What Lurks in the Hearts of Galaxies," is planned for Oct. 9.

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connections could begin.

"The next 40 hours were spent working around the clock prepping and safing the orbiter for ferry flight," said Wayne Bingham, who is the United Space Alliance Discovery flow manager. "Time critical purges and off-loads will be accomplished."

Fuel cells were cooled down in preparation for power down, and aft platforms were extended to gain access to certain components that need to be safed.

Once all ferry flight preparations are complete, workers attach the shuttle to the top of the Shuttle Carrier Aircraft for its piggyback flight back to the Space Coast.

When Discovery arrives at Kennedy, about 100 NASA, USA, Boeing Co. and Rocketdyne engineers, technicians and other specialists will be waiting in Orbiter

Processing Facility-3 as Discovery is towed from the Shuttle Landing Facility.

According to Bingham, the shuttle will be aligned and moved into the processing facility using laser instrumentation and the tug will be disconnected. Once in place, the orbiter will be jacked and leveled and platforms configured around the vehicle.

Next, preparations will begin to open the payload doors and carrier panels, and doors will be removed to gain access to the orbiter's mid-body.

Bingham said payloads generally are removed five days after the orbiter arrives at the processing facility. Engine removal occurs nine days after tail cone removal.

A group of tile inspectors began their work at NASA's Dryden Flight Research Center adjacent to Edwards with a micro inspection of about 24,000 tiles, 2,300 blankets,

more than 18,000 square feet of felt reusable surface insulation blankets and gap fillers between each tile. These efforts will be completed when Discovery returns to Kennedy.

Jon Blitch, micro inspection team supervisor with USA, said initial inspections take about two weeks.

"Internal inspections commence as soon as areas become accessible for processing," Blitch said.

A group of inspectors are specifically trained for window inspection and boroscope inspection throughout the shuttle.

Bingham said postflight inspections provide the information needed on items that must be either repaired or replaced.

"Knowing this early allows maximum time for pieces and parts to be ordered from vendors, repaired or replaced," Bingham said.

"This also allows the scheduling process to maximize the work effort with least impact to the schedule and resource allocation, and allows for minimization of milestone impacts."

Landing opportunities were waived off at Kennedy on Sept. 10 and 11 due to instability in the weather. The landing at Edwards completed a two-week, 5.7-million-mile flight for Commander Rick Stuckow, Pilot Kevin Ford, and Mission Specialists Pat Forrester, Jose Hernandez, Danny Olivas and European Space Agency astronaut Christer Fuglesang. Tim Kopra, who launched on the STS-127 mission and spent two months on the space station as an Expedition 20 crew member, returned home aboard Discovery.

Mission Specialist Nicole Stott replaced Kopra and will spend nearly three months on the station.