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Speaker on Space Exploration: The International Space Station; Return to the Moon; Space Exploration

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SPACE VISIONS CONGRESS 2007

FRIDAY EVENING
SPEAKER TWO
RON CASWELL
Konrad Dannenberg
and
Wernher von Braun

April 27, 2006

Space Exploration:
- The International Space Station
- Return to the moon
- Space exploration

Ron Caswell

Ron Caswell
International Space Station

TODAY ISS is:

171 ft long (pressurized)
191 ft long (truss)
240 ft wide (solar array pair)
90 ft high (Unity, Z1 & P6)

471,444 lb (213,843 kg) – 50 percent assembly complete

Elements On Orbit (As of Jan 2007)
Elements Pending Russian Launch
Elements Pending US Shuttle Launch
Logistics and Cargo Carriers

June 2007 launch

- Progress Cargo Vehicle
- Docking Compartment (DC) 1
- Zarya Control Module
- S1 Truss Segment
- Mobile Servicing Systems
- JEM ELM-PS
- JEM PM
- Columbus
- Multi Purpose Logistics Modules
- Leonardo
- Raffaello
- Donatello
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Kennedy Space Center
International Space Station Processing Facility
February 2004

The solar arrays that did not want to fold. STS-116

STS-116 Space Walker at P1 Truss.
STS-116 commander Mark L. Polansky.

STS-116 docked to the International Space Station.
Space Shuttle and Apollo derived components.

Land 4 astronauts on the Moon by 2018.
Initial capability of 4 people on the moon for up to 7 days.
Then build an outpost at the Lunar south pole.
Angkor Wat is an immense monument occupying a rectangular area of about 500 acres. It is surrounded by a 660 foot wide moat, and the outer perimeter wall measures 3 ½ miles long. The central tower is 213 feet tall. Took 30 years to build and was complete in the year 1150.
pilots Fei Junlong and Nie Haisheng wave goodbye before entering Shenzhou VI

Fei and Nie spent 115 hours and 32 minutes in orbit.

October 12, 2005

Shenzhou VI flight

Shenzhou - Chinese for "divine ship"
~450 Billions stars in Milky Way Galaxy
~100 Billion Galaxy’s in the Universe
-There are more stars in the universe than there are grains of sand on all of Earth’s beaches.
AMS: International Collaboration

478 Physicists, Engineers and Technicians in 17 Countries
Led by MIT
Sponsored by DoE
How do you go to the bathroom in Space?

JSC Space Shuttle Toilet trainer

Align, Align, Align!

Train, Train, Train!!!
Then Practice, Practice, Practice!
“Whatever you want to be in life
You are in training for it now!”

Michael Anderson
NASA’s Vision

To improve life here,
To extend life to there,
To find life beyond.