# **EXPEDITION 27 CELEBRATING HUMAN SPACE FLIGHT**

During the 27th expedition to the International Space Station the crew will celebrate the 50th anniversary of human space flight. April 12, 2011 will be a half-century since the flight of Russian Cosmonaut Yuri Gagarin, the first human in space. That same date will also mark three decades since the launch of the first Space Shuttle mission. A few weeks later, May 5, will be the 50th anniversary of the flight of Astronaut Alan Shepard – the first American in space.

Expedition 27 Commander and Russian Cosmonaut Dmitry Kondratyev, along with NASA Astronaut Catherine Coleman and European Space Agency Astronaut Páolo Néspoli of Italy launched to the Space Station on December 15, 2010 from the Baikonur Cosmodrome in Kazakhstan aboard the Russian Soyuz TMA-20 spacecraft.

The trio was joined by Russian Cosmonaut

Alexander Samokutyaev, NASA Astronaut Ron Garan and Russian Cosmonaut Andrey Borisenko following their launch aboard Soyuz TMA-21 from Baikonur on April 5, 2011. All three will serve as flight engineers during Expedition 27.

Much of the crew's time will be spent conducting scientific experiments in various disciplines such as research into human adaption to microgravity, fluid physics, material science, radiation monitoring and Earth observation.

In the spring of 2011, the STS-134 mission of Endeavour will arrive at the Space Station. Endeavour's crew will deliver the Alpha Magnetic Spectrometer (AMS) and mount the instrument to the station's truss structure where it will use the power generated by the station's solar arrays to support observations of cosmic rays.



International Space Station as seen by the STS-132 crew of the Shuttle Atlantis after undocking in May 2010.

The AMS is an external instrument designed to allow researchers to study the formation of the universe and search for evidence of antimatter and dark matter.

Antimatter is a fundamental particle of regular matter with its electrical charge reversed. Dark matter is invisible because it does not radiate energy. But it does have mass, and that means it can supply the extra gravity necessary to hold together galaxies and clusters of galaxies.

In addition, STS-134 will include three spacewalks and will deliver the ExPRESS Logistics Carrier 3, which will hold a variety of spare parts.

The Expedition 27 crew will spend approximately three months together before Kondratyev hands over command of the station to Borisenko. Kondratyev, Coleman and Néspoli will then undock their Soyuz

TMA-20 spacecraft and head for a landing in Kazakhstan in May 2011.



Expedition 27 crew members Andrey Borisenko (foreground), Alexander Samokutyaev (left) and Ron Garan participate in a training session in an International Space Station mock-up/trainer at NASA's Johnson Space Center.

### **CREW PROFILE**



Andrey Borisenko

### Andrey Borisenko Flight Engineer

**Born:** April 17, 1964, in Leningrad (now St. Petersburg), Russia **Education:** Graduated Leningrad Military Mechanical Institute in 1987 with the qualification "Flight and Control Dynamics."

**Experience:** Selected as a cosmonaut in 2003, Expedition 27 will be his first trip into space.

into space

# Ronald Garan, Jr. (Colonel, U.S. Air Force, Ret.) Flight Engineer

Born: December 14, 1960 in Charleston, South Carolina

**Education:** Received a bachelor's degree in business economics from the State University of New York's College at Oneonta in 1982. Earned a master's degree in aeronautical science from Embry-Riddle Aeronautical University in 1994 and a master's in aerospace engineering from the University of Florida in 1996.

**Experience:** Selected as an astronaut in 2000, he served as a mission specialist on STS-124 in 2008.



Alexander Samokutyaev

# Alexander Samokutyaev (Lieutenant Colonel, Russian Air Force) Flight Engineer

Born: March 13, 1970 in Penza, Russia

**Education:** Graduated from the Chernigov Air Force Pilot School as pilotengineer in 1992 and from the Gagarin Air Force Academy in 2000.

**Experience:** Selected as a cosmonaut in 2003, Expedition 27 will be his first trip

into space.

### **FOR MORE INFORMATION CONTACT:**

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