2009 **Crew of STS-Mission 119 / ISS Assembly Mission 15A (International)**

The crew of STS-119 / ISS Assembly Mission 15A:
Lee J. Archambault, Commander, NASA Astronaut
Dominic A. Antonelli, Pilot, NASA Astronaut
Joseph M. Acaba, Mission Specialist, NASA Astronaut
Steven R. Swanson, Mission Specialist, NASA Astronaut
Richard R. Arnold II, Mission Specialist, NASA Astronaut
John L. Phillips, Mission Specialist, NASA Astronaut
Koichi Wakata, Mission Specialist and ISS Flight Engineer, JAXA Astronaut

The crew of STS-119 teamed up with International Space Station Expedition 18 crew:
E. Michael Fincke, Commander, NASA Astronaut
Yuri V. Lonchakov, Flight Engineer, RSA Cosmonaut
Sandra H. Magnus, Flight Engineer, NASA Astronaut

Justification: The significance of the STS-119 / ISS Assembly Mission 15A was that it delivered and installed the U.S. Starboard 6 Truss Segment. This truss segment included the final two solar array wings to be installed, giving the ISS its full complement of eight solar array wings.

The STS-119 mission began with a successful launch on March 15, 2009 from the Kennedy Space Center in Florida, USA. Following docking with the ISS, the crews of STS-119 and Expedition 18 worked together, using both the Space Station and Space Shuttle robotic arms to unberth the truss segment from the Space Shuttle payload bay and install it on the ISS. Several complex handoffs of the payload from one robotic arm to another were required while the Space Station robotic arm was relocated to enable final installation of the truss segment. The actual installation was accomplished with the coordinated effort of two spacewalking crewmen who performed the necessary operations to secure the truss segment to the Space Station and connect all electrical lines necessary to send power to the Space Staion. Two additional spacewalks were performed during the mission to install a payload attachment system and perform several other procedures to better prepare the Space Station for future missions. The extraordinary skill of these astronauts to perform complex robotic arm operations in coordination with three very demanding spacewalks resulted in

the overwhelmingly successful installation of the final truss segment. The addition of these solar arrays provided the electricity for the Space Station to double its science output.

The STS-119 mission was completed with a nominal landing at the Kennedy Space Center in Florida. This outstanding mission is highly deserving of the Komarov Diploma.