2009

Crew of STS Mission 127 (International)

The crew of STS-127:

Mark L. Polansky, Commander NASA Astronaut

Douglas G. Hurley, Pilot, NASA Astronaut

Christopher J. Cassidy, Mission Specialist, NASA Astronaut

Julie Payette , Mission Specialist, CSA Astronaut

Thomas H. Marshburn, Mission Specialist, NASA Astronaut

David A. Wolf, Mission Specialist, NASA Astronaut

Timothy L. Kopra, Mission Specialist, NASA Astronaut

International Space Station (ISS) Assembly Mission 2J/A along with Increment 20:

Gennady Padalka, Commander, RSA Cosmonaut

Michael R. Barratt, NASA Astronaut

Frank De Winne, ESA Astronaut

Roman Romanenko, RSA Cosmonaut

Robert B. Thirsk, CSA Astronaut

Koichi Wakata, JAXA Astronaut

Justification: The success of the STS-127/Increment 20 mission was extremely significant in the assembly sequence of the International Space Station with the addition of the Japanese Experiment Module Exposed Facility (JEM-EF) and the Exposed Section of the Experiment Logistics Module (ELM-ES) which will contribute greatly to the future of human space flight operations.

The STS-127 mission began with a successful launch on July 15, 2009. Upon docking with the ISS a new record for the number of people on same spacecraft was established with 13 including at least one from each of the five partner space agencies. The combined Shuttle and ISS crew used the Space Station and Space Shuttle robotic arms multiple times over the course of five different spacewalks to position the JEM-EF onto the Japanese Experiment Module, the ELM-ES onto the JEM-EF and unload an Integrated Cargo Carrier (ICC-VLD). Upon transferring critical station spare components from the ISS-VLD to External Stowage Platform-3,

the ICC-VLD was re-installed into the Shuttle's payload bay for return to Earth. Similarly, the ELM-ES was returned to the Shuttle's payload bay after transferring critical cargo to the JEM-EF. During the course of the spacewalks, all six batteries in the Port 6 truss segment were also replaced having exhausted their useful on-orbit life of nine years. Finally, two small payloads were deployed from the Shuttle's payload bay on the final full day on orbit.

On the seventeenth day of the mission a successful landing was conducted at the Kennedy Space Center capping off one of the longest and most intensive missions to construct the International Space Station. This outstanding mission is highly deserving of the Komarov Diploma.