Astronaut Conducts Protein Crystal Experiment on Space Station

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Expedition 12 Commander and NASA Science Officer Bill McArthur activated the Protein Crystal Growth Monitoring by Digital Holographic Microscope for the International Space Station, or PromISS-4 experiment on Jan. 19. It is scheduled to run in the Microgravity Science Glovebox for 15 days.

PromISS-4 is a protein crystal growth facility incorporating diagnostic equipment that allows for careful monitoring of the exact growth conditions of the crystals.

Two second video sequences of the growing protein crystals are recorded by the Microgravity Science Glovebox video recorders. Once these complex molecules are well understood, pharmaceutical companies could use the information in the design and development of new pharmaceutical drugs.

The ground-commanded Binary Colloidal Alloy Test, or BCAT-3 activity continued taking time-lapse photography of BCAT sample 6 using the EarthKAM camera and equipment. The run is scheduled to be completed Jan. 26. BCAT-3 studies the physics of surface crystallization and fluids at the critical point.

As part of his Saturday Morning Science activities, McArthur completed an Education Payload Operations activity called "Floor/Ceiling," which highlighted how astronauts keep themselves oriented in the weightless environment of space. The video will be used in NASA educational

products to help demonstrate basic principals of math, science and engineering.

NASA's payload operations team at the Marshall Center coordinates U.S. science activities on space station.

Source: NASA