Status of the International Space Station Waste and Hygiene Compartment

Abstract

The Waste and Hygiene Compartment (WHC) serves as the primary system for removal and containment of metabolic waste and hygiene activities on board the United States segment of the International Space Station (ISS). The WHC was launched on ULF 2 and is currently in the U.S. Laboratory and is integrated into the Water Recovery System (WRS) where pretreated urine is processed by the Urine Processor Assembly (UPA).

The waste collection part of the WHC system is derived from the Service Module system and was provided by RSC-Energia along with additional hardware to allow for urine delivery to the UPA. The System has been integrated in an ISS standard equipment rack structure for use on the U.S. segment of the ISS.

The system has experienced several events of interest during the deployment, checkout, and operation of the system during its first year of use and these will be covered in this paper. Design and on-orbit performance will also be discussed.