

Space Vehicle Mockup Facility (SVMF)

The mission of the Space Vehicle Mockup Facility (SVMF) is to provide world class training for space flight crews and their support personnel and high-fidelity hardware for real-time mission support. A major task of the SVMF is to support engineering and mission operations evaluations for the International Space Station (ISS) and Orion Programs. All mockups and part-task trainers are available to support troubleshooting on the ground any time problems develop on orbit in real time.



The Customers

The SVMF serves a variety of customers, including Civil Servant and Contractor personnel from Johnson Space Center (JSC) and other NASA centers as well as ISS International Partners, commercial space flight companies, and exploration programs.



Training

A variety of training is conducted in the SVMF on the ISS mockups, visiting vehicle mockups and internal and external high fidelity hardware to prepare for emergency operations, on-orbit maintenance, photo/TV, stowage and handling, EVA/airlock operations and scientific payload operations.







Facility Description

The SVMF consists of ISS, Orion, commercial vehicle mockups, part-task trainers and rack interfaces, a Precision Air Bearing Floor, and a Partial Gravity Simulator. The Precision Air Bearing Floor (PABF) and the Partial Gravity Simulator are utilized in the development and evaluation of Extra Vehicular Activity (EVA) equipment and techniques and for training in 0g mass handling. The ISS mockups include the U.S. Lab, Nodes, Permanent Multipurpose Module, Joint Airlock, medium-fidelity mockups of the Russian Service Module, SOYUZ, FGB, and several other ISS International Partner modules. The SVMF also includes low-fidelity mockups of some commercial cargo vehicles. The mockups in the SVMF are used for a variety of engineering and operations evaluations such as cargo transfer operations, on-board stowage evaluations, fit checks, and procedures development and verification. In addition to the ISS module "stack," there are a number of part-task trainers used for detailed training and assessments. Two additional US lab modules and their associated control consoles are used for scientific payload and interface training. The SVMF houses a mockup of the Orion capsule for support of future Exploration. This mockup is currently used for development and assessments of interior layouts. It will continue to be outfitted over the next several years. SVMF users are supported by video and audio systems along with a local area network.







For the benefit of all

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