National Aeronautics and Space Administration

Science Mission Operations Training

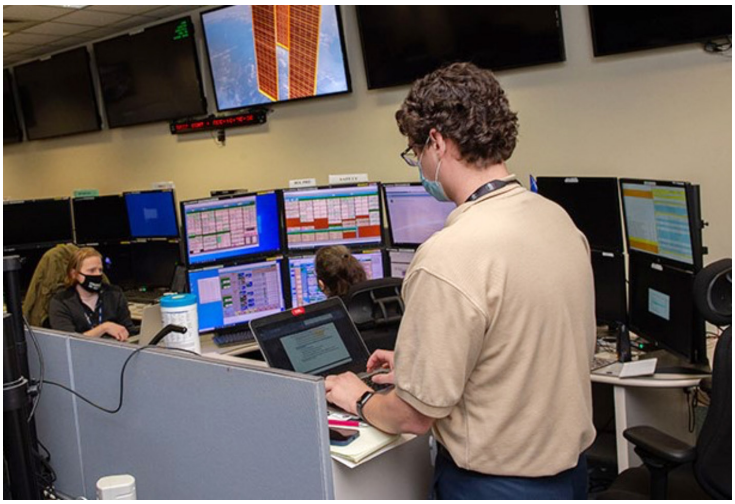
Overview

The Payload and Mission Operations Division (PMOD) training capability prepares astronauts, payload developers (PD), principal investigators, and flight control and ground teams for science operations success.

PMOD has trained more than **1,000 remote PDs** by providing ground systems interface; testing and tools training; integrated simulations augmented by our state-of-the-art mission training complex; and one-on-one remote operations team integration. We have provided hands-on training on payload hardware to flight crews and in situ with video-based products, along with just-in-time training materials developed by our operations and crew specialists.

Our ground-based controllers are trained on each payload's science and hardware to develop ground and crew procedures. Integrated simulation training events prepare the teams for science-loss anomaly scenarios.

We employ a train the trainer concept to provide flexibility for the PD team and provide a single point of contact for training to use ground system tools and shared flight operational tools, which prepare the scientists/researchers to work with astronauts in situ.



Training Services

- Remote science user, ground systems interface training on NASA tools and displays
- Science and payload developer team real-time operations training
- Nominal and science-loss anomaly recovery training
- Flight and ground controller training and certification
- Science operations curriculum development and related instructional design
- Payload instructor assessment, training, and certification
- Proprietary science protection practices
- Joint, multi-partner payload operations simulations
- Training to convert research methods and rules into operational routines

Services of Marshall Space Flight Center's Payload and Mission Operations Division

NP-2021-06-24-MSFC MSFC G-578272