# ISS Crew & Ground Personnel Training

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### OVERVIEW

ZIN maintains qualified crew training personnel and performs crew and Ground Support Personnel (GSP) training/certification. Crew and GSP training is performed prior to each International Space Station (ISS) Increment.

ZIN personnel plan, develop and execute training for both the crew that will configure and operate our payloads once in space and Ground Support Personnel (GSP) that will operate our experiments from the ground (cadre and payload developers).

Our Team develops interactive courseware for complex experiments and research facilities such as the ZIN developed and operated Fluids and Combustion Facility (FCF) that operate on the ISS. We also develop courses for training payload operators including data, video, and payload support systems. Our payload training initiatives includes classroom instruction, electronic media, and web-based delivery.



The ZIN Team is responsible for ISS payload operations that include development of operations products, on-orbit crew and ground personnel training/certification, and the real time payload operations on the ISS. ZIN has provided systems and crew operations training for more than 30 years in support of over 240 payloads flown on shuttle, MIR and ISS. Our expertise includes planning, integrating, maintaining, and administering training programs and operations for NASA.

ZIN maintains training materials including curriculum, lesson plans, and computer-based training. We typically train Crew members at JSC using Training Units designed and built by ZIN, located in Building 9 at JSC.

ZIN updates the training materials to be consistent with any hardware modifications, upgrades and crew procedure changes. ZIN develops and maintain the GSP Training and Certification Plan and maintain a certification status of the training completed for each person required to support on orbit operations. Prior to start of Increment, the training team will create an Increment operations overview for our payloads to be used for console operations training.

- ❑ ZIN develops detailed crew mockups and trainers used by our dedicated crew trainers to train our on-orbit crew.

- ❑ Our ISS operations team is trained and certified for real-time operations and are also experienced with hands-on trainer, simulation and virtual training for each payload operated.

- ❑ ZIN designs and implements payload training initiatives, from classroom instruction to simulator/crew training unit design, development, maintenance and operation.

- ❑ Since 2001, ZIN has trained over 75 astronauts for over 60 ISS Increments.

- ❑ ZIN develops crew training classes for facilities and payloads that are skills based rather than procedure based whenever possible.





## ZIN Technologies