

NASA International Space Station Science Officer Description of Duties

Version 1

Summary

One member of the crew of each increment will be designated the NASA International Space Station (ISS) Science Officer. The primary duty of the crewmember will be to oversee and manage the on-board activities required for the NASA investigations on the ISS.

Qualifications

The designated NASA ISS Science Officer should have the education and credible professional experience to understand and take responsibility for the NASA investigations on board the ISS. The selected individual must have proven skills in understanding the technical issues and scientific basis of the experiments that are on board. However, because of operational requirements and other Station duties and requirements, the NASA ISS Science Officer role will not preclude other assignments or roles as defined in accordance with Station Program Implementation Plan (SPIP), Volume 9, "Crew Titles."

The NASA ISS Science Officer must have good communication skills and will be expected to interact with Principal Investigators regarding the objectives of their investigations and the status of their experiments. In addition, the NASA ISS Science Officer must also be able to communicate the merits of the scientific investigations to the general public and to the media.

Pre-Launch Responsibilities

Once assigned to an increment crew, the designated NASA ISS Science Officer will become the primary crew point of contact with the Principal Investigators, Payload Developers, Payload Integrators, and Payload Trainers.

The NASA ISS Science Officer will assist the Increment Commander in developing the Crew Task Assignments related to scientific investigations for the Increment. Together, they will review the crew Payload training schedule for content and adequacy, and ensure that the different crewmembers executing the scientific program are adequately prepared and trained.

During this time, the NASA ISS Science Officer is expected to develop a professional relationship with the Principal Investigators conducting research on the increment by meeting with them and spending as much time working and training in their laboratories as the training template will allow.

In-flight Responsibilities

During the mission, the NASA ISS Science Officer will be the point of contact for all issues pertaining to the NASA investigations and experiment hardware on board. The NASA ISS Science Officer will be the primary operator of as many of the NASA experiments as the training template, task allocation plan, and on orbit timeline allow, and will have a working knowledge of the entire complement of investigations and experiments.

The NASA ISS Science Officer will ensure, to the extent possible given operational constraints, that the ISS operates as a smooth running laboratory; to this end, he or she will work with the Expedition Commander and the Flight Director to verify that the required consumables and crew resources are available to ensure successful execution of the planned investigations.

In the event a rapid decision is required to determine priorities among the investigations and experiments and communication with the Lead Increment Scientist on the ground is not possible in a timely manner, the NASA ISS Science Officer will assume responsibility for the on board decisions relating to the investigations. The NASA ISS Science Officer will make these decisions in collaboration with the Expedition Commander, the Flight Director, and the Lead Increment Scientist, as appropriate.

In the event of the failure of an on board experiment, the NASA ISS Science Officer will be responsible for its in-flight repair, and will ensure that crew persons with the correct skills are assigned to execute the repair.

As the various experiments are completed, the NASA ISS Science Officer will ensure that all experimental data (e.g., disks, tapes, or notes) and all samples are properly preserved and packaged for return to Earth, according to the documented procedures.

Finally, the NASA ISS Science Officer will be the main crew spokesperson for any media interviews regarding the NASA investigations accomplished on board.

Post-flight Responsibilities

The duties of the NASA ISS Science Officer will not finish at landing but will continue well after the flight. This will include participation in formal debriefs with the Principal Investigators, and active collaboration with the Principal Investigators on their post-flight analysis of the experimental observations.

At the programmatic level, the NASA ISS Science Officer will be expected to convey any lessons-learned to the ISS Program Office and to provide a summary briefing of the investigations to the Program Office and to NASA Headquarters. The NASA ISS Science Officer will also participate in NASA-sponsored public affairs and outreach activities.

Because the NASA ISS Science Officer will be an integral and participatory member of the scientific team, he or she will also be encouraged to discuss with the Investigators his or her participation in the dissemination of the experimental findings. This may include joint authorship of journal publications, participation in technical seminars at research institutions, and presentation of the findings at professional conferences, as appropriate.

Concurrence:
JSC/J-D. Bartoe
P/T. Pengra

U/Ms. Kicza Date

I/Mr. O'Brien Date

I/Mr. Schumacher Date

Y/Dr. Asrar Date

S/ Dr. Weiler Date

P/Mr. Mahone Date

M1/Gen. Kostelnik Date

M2/Ms. Diaz Date

JSC/CB/Col. Cabana Date

JSC/CB/Dr. Thomas Date

Comments: J-D. Bartoe 11/26/02; D. Shortz

Prep: M2/11/26/02, Revision 1, M2/1/2/03
Doc: U:\users\rdavis\M2\NASA ISS Science Officer, rev 1.doc
File: M2 Chron, ISS, Astronaut Issues
Bcc:
M/Mr. Readdy
M1/Gen. Kostelink, Col. Pitotti, Mr. Sofge
M2/Ms. Diaz, Dr. Davis, Ms. Edgington, Ms. Adde
I/Mr. O'Brien
IH/Mr. Condes
AS/Dr. Lucid
U/Dr. Ross, Mr. Uhran
P/Ms. Pengra, Ms. Rahn, Ms. Beasley
L/Ms. Cherry
JSC/Dr. Bartoe
JSC/CB/Col. Cabana, Dr. Thomas