



National Aeronautics and
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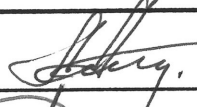
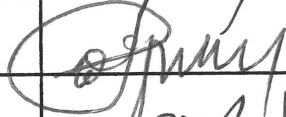
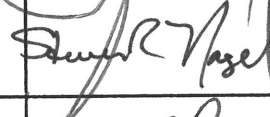
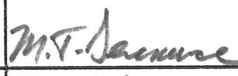
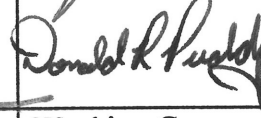
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Lyndon B. Johnson Space Center
Houston, TX

MIR 18 CREW ASTRONAUT FUNCTIONS/RESPONSIBILITIES

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Mir 18 Crew Astronaut Functions/Responsibilities

During the flight on the Mir station, the NASA astronaut will perform the functions of a prime crew member. He will participate in the capacity of a cosmonaut-researcher on the Mir station and on the transport vehicle.

1.0 Functions of the astronaut.

1.1 Functions of the astronaut on the transport vehicle.

- 1.1.1 Use life-support systems and radio communication systems in nominal and off-nominal situations.
- 1.1.2 Use onboard systems according to the directions of the commander.
- 1.1.3 Conduct radio communications with the ground.
- 1.1.4 Egress space vehicle after landing or splashdown.

1.2 Functions of the astronaut on the Mir station.

- 1.2.1 Perform Team O approved science experiment program.
- 1.2.2 Maintain normal operation of assigned scientific equipment and life support systems.
- 1.2.3 Perform cargo loading/unloading operations.
- 1.2.4 Conduct radio communications with the ground.
- 1.2.5 Maintain his/her performance (perform health maintenance, sanitary and hygiene procedures).
- 1.2.6 Conduct TV reporting and take still and motion pictures.
- 1.2.7 Perform independent activities and flight operations according to the directions of the station commander.
- 1.2.8 Perform emergency egress of the Mir station if necessary.
- 1.2.9 Use life-support systems and communication systems in nominal and off-nominal situations.

2.0 Requirements for astronaut training.

2.1 Requirements for astronaut training with respect to transport vehicle.

2.1.1 Must know the design and configuration of the transport vehicle.

2.1.2 Must know how to use life-support systems under nominal and off-nominal situations. This includes:

- Atmospheric maintenance system
- Gaseous mixture supply system
- Water supply system
- Waste management system
- Escape equipment aids (including spacesuit)
- Survival kit
- Food Handling

Must know how to use radio communications and lighting systems.

Must have a basic familiarity with all other onboard systems.

2.1.3 Must be trained for emergency deorbit in the event of fire or depressurization according to onboard documentation.

2.1.4 After landing or splashdown, must be able to egress the descent vehicle and to use rescue and survival kits and aids.

2.1.5 Must be able to issue commands from the right Command Signal Field (CSF) following onboard documentation or at the direction of the commander.

2.1.6 Must know the mission program (main and backup scenarios) and his/her actions for all flight stages.

2.2 Requirements for the astronaut training with respect to the Mir station.

2.2.1 Must know the design and configuration of the Mir station and the onboard systems he will use.

2.2.2 Must be able to use the life support, radio communication, and TV systems in all operational modes.

- 2.2.3 Must be able to service and maintain his/her science equipment, and the life-support and thermal control systems of the Mir station.
- 2.2.4 Must be able to use onboard medical equipment and medications and render first aid for himself and other crew members.
- 2.2.5 Must be able to set up science hardware for planned experiments (assisted by other crew members as necessary) and perform experiments in accordance with the program.
- 2.2.6 If necessary to maintain a record of the experiment, must be able to independently operate the video and photographic equipment.
- 2.2.7 Must be prepared to participate in radio and TV broadcasts as well as be able to conduct radio-exchanges with the MCC-M.
- 2.2.8 Must be able to egress the station in case of emergency.
- 2.2.9 Must be able to use fire extinguishers and provide self protection.

3.0 Accountabilities and responsibilities of the astronaut.

- 3.1 The astronaut is responsible for the performance of functions specified in Section 1 and the requirements specified in Section 2.
- 3.2 The astronaut must have the permission of the Mir station commander if he is required to operate any critical onboard system.
- 3.3 While the astronaut is onboard the Mir station or the transport vehicle, he is obligated to meet the requirements of onboard flight documentation, Mir station commander and, as required, Mir station flight director requests.
- 3.4 The astronaut will participate in the post-flight debriefing, report preparation, and press conferences.