Abstract

The goal of the Information Presentation Directed Research Project (DRP) is to address design questions related to the presentation of information to the crew. The major areas of work, or subtasks, within this DRP are: 1) Displays, 2) Controls, 3) Electronic Procedural and Fault Management, and 4) Human Performance Modeling. This DRP is a collaborative effort between researchers at Johnson Space Center and Ames Research Center.

Visual displays

Visual displays are used to present information to the crew. They provide visual cues and instructions for the crew to perform their tasks. Examples of visual displays include screens, monitors, and various types of displays such as flat panel displays, liquid crystal displays, and organic light-emitting diode (OLED) displays.

Auditory displays

Auditory displays are used to present information to the crew through sound. They provide auditory cues and instructions for the crew to perform their tasks. Examples of auditory displays include speakers and headphones.

Fault management

Fault management is a critical aspect of flight operations. It involves the identification, analysis, and resolution of faults that may occur during flight. Fault management is essential for maintaining the safety and reliability of space missions.

Vibration studies

Vibration studies are conducted to assess the impact of vibrations on crew performance and equipment. These studies help to ensure the safety and comfort of the crew during space missions.

Fault management studies

Fault management studies are conducted to assess the impact of faults on crew performance and equipment. These studies help to ensure the safety and reliability of space missions.

Controls

Controls are used to manipulate the environment and equipment. They provide the crew with the ability to control various aspects of the mission. Examples of controls include joysticks, switches, and buttons.

Fault management

Fault management is a critical aspect of flight operations. It involves the identification, analysis, and resolution of faults that may occur during flight. Fault management is essential for maintaining the safety and reliability of space missions.

Vibration studies

Vibration studies are conducted to assess the impact of vibrations on crew performance and equipment. These studies help to ensure the safety and comfort of the crew during space missions.

Fault management studies

Fault management studies are conducted to assess the impact of faults on crew performance and equipment. These studies help to ensure the safety and reliability of space missions.

Controls

Controls are used to manipulate the environment and equipment. They provide the crew with the ability to control various aspects of the mission. Examples of controls include joysticks, switches, and buttons.

Fault management

Fault management is a critical aspect of flight operations. It involves the identification, analysis, and resolution of faults that may occur during flight. Fault management is essential for maintaining the safety and reliability of space missions.

Vibration studies

Vibration studies are conducted to assess the impact of vibrations on crew performance and equipment. These studies help to ensure the safety and comfort of the crew during space missions.

Fault management studies

Fault management studies are conducted to assess the impact of faults on crew performance and equipment. These studies help to ensure the safety and reliability of space missions.