

Cold Stowage Asset Planning Tool Development

OBJECTIVE

To replace cumbersome Excel spreadsheets with a web-based application for tracking cold stowage assets shipped to and from the ISS, ensuring real-time monitoring and management of assets critical to space missions.

CHALLENGE

NASA's existing system relied on multiple Excel spreadsheets to track cold stowage assets, such as freezers and ice packs, essential for ISS operations. The process was inefficient, given the dynamic nature of space missions and the varying duration and frequency of asset usage.

SOLUTION

A web application was developed to automate and streamline the tracking process. The application, compatible with Chrome and Edge browsers, was designed to replace Excel sheets, offering a user-friendly interface for inputting, updating, and monitoring asset data. It supported the tracking of 26 different asset types, facilitating detailed management of inventory, launch, and landing schedules, as well as post-flight processing.

OUTCOME

The new tool significantly improved the efficiency and accuracy of asset tracking for ISS operations. By automating data entry and providing a comprehensive overview of asset statuses, NASA could better predict and manage asset availability, reducing the risk of shortfalls and enhancing mission planning.

IMPACT

The project underscored the importance of modernizing data management tools in space operations. It demonstrated the potential of web-based applications in enhancing logistical support for space missions, contributing to the overall success and safety of space exploration efforts.