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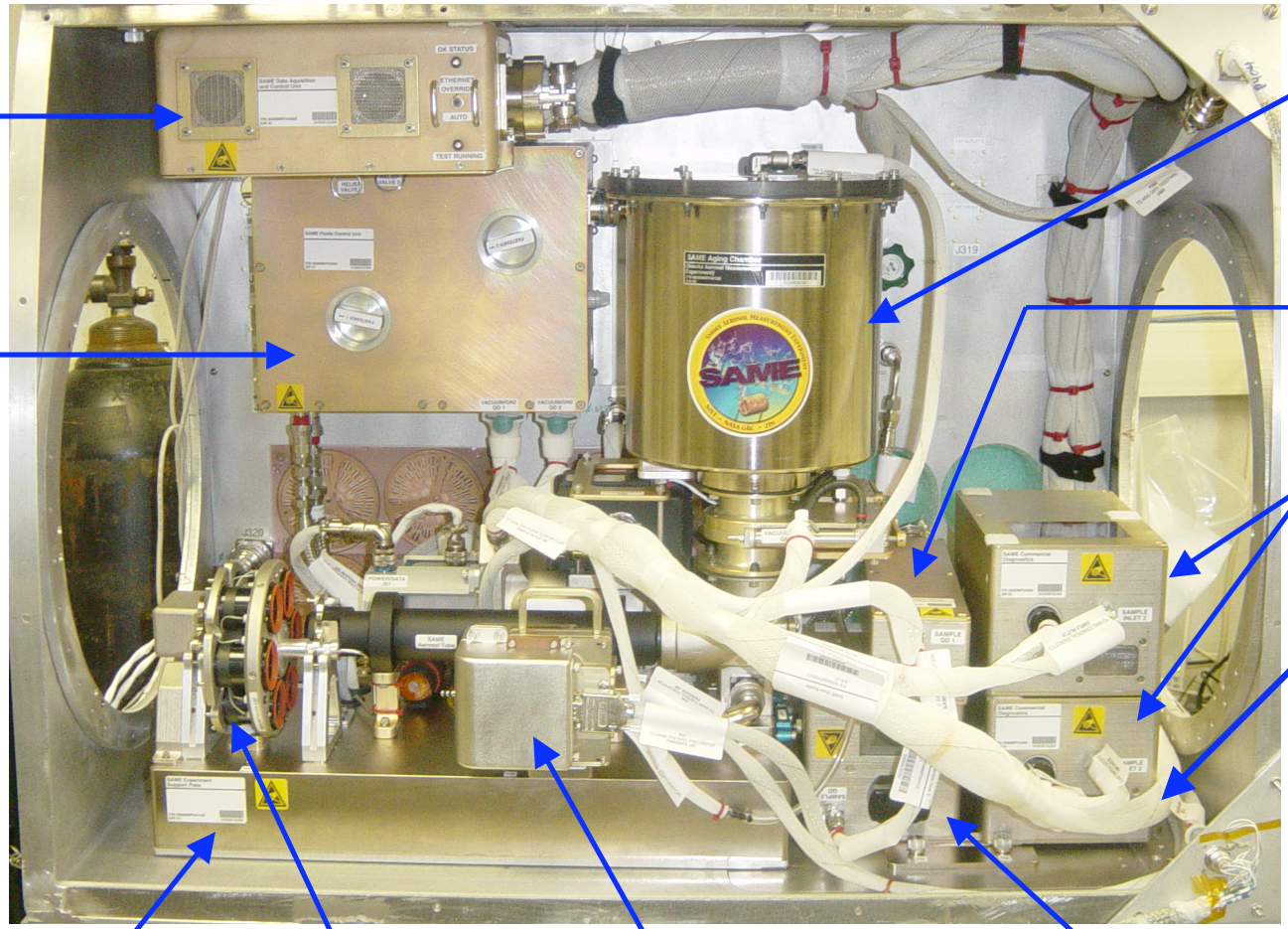
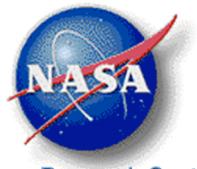
SAME in the MSG (mockup)





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SAME Flight Hardware

- Experiment Support Plate
- Fluids Control Unit
- Aging Chamber
- Data Acquisition and Control Unit
- P-Trak Enclosure (2)
- Commercial Diagnostics Enclosure (2)
- Sample Diluter
- Sample Carousel (5)
- Thermal Precipitator (5)
- Alcohol Wick Storage Container (5)
- Accessories Kit
- Diagnostics Mounting Plate
- Hoses: 1 Bundle and 2 Separate Hoses
- Cables: Video and Power
- GN2 and Vacuum Lines

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SAME Flight Operations Summary

- The experiment hardware will be stowed in two, 3X soft-stow bags.
- The experiment has been designed to maximize the use of the MSG, while minimizing the steps required for installation and expendables replenishment. The hardware has been organized into the largest assemblies that will (easily) fit through the side ports of the MSG, and be assembled with the fewest number of tools. After the initial attachment of the Experiment Support Plate to the floor of the MSG, additional assemblies are attached to it with clips, slip fittings, and push-on type electrical connectors. The Experiment Support Plate Handle will be removed and the Aging Chamber with Inlet and Exhaust Elbows will be mounted on the Aging Chamber Locating Blocks.
- The Fluid Control Unit will be mounted to the MSG WV back wall. The Data Acquisition and Control Unit (DACU) will be mounted on the ceiling of the MSG Working volume.
- Thirty test points will be conducted using samples from five Sample Carousels.
- Parts that must be replenished or replaced during the nominal course of the experiment have been designed to fit through the front glove ports, and have been placed in the front of the experiment so that the rack will not have to be disturbed during the course of the runtime.
- Typical crew activities will include the installation of SAME hardware in MSG, changeout of the Sample Carousel and Thermal Precipitators and changeout of the Alcohol Wick.
- The ground operations team will be the primary operators of the facility and will operate SAME by uplinking commands from the GRC Telescience Support Center (TSC).
- Off-nominal conditions (resulting from unplanned events) will be addressed in real time by the SAME team in conjunction with the Payload Operations and Integration Center (POIC) cadre and the crew.
- Following flight operations, it is required that the Sample Carousels and Thermal Precipitators be returned to the project team for post-flight analysis. It is desired that the P-Trak Enclosures and Commercial Diagnostics Enclosures be returned for post-flight calibrations.

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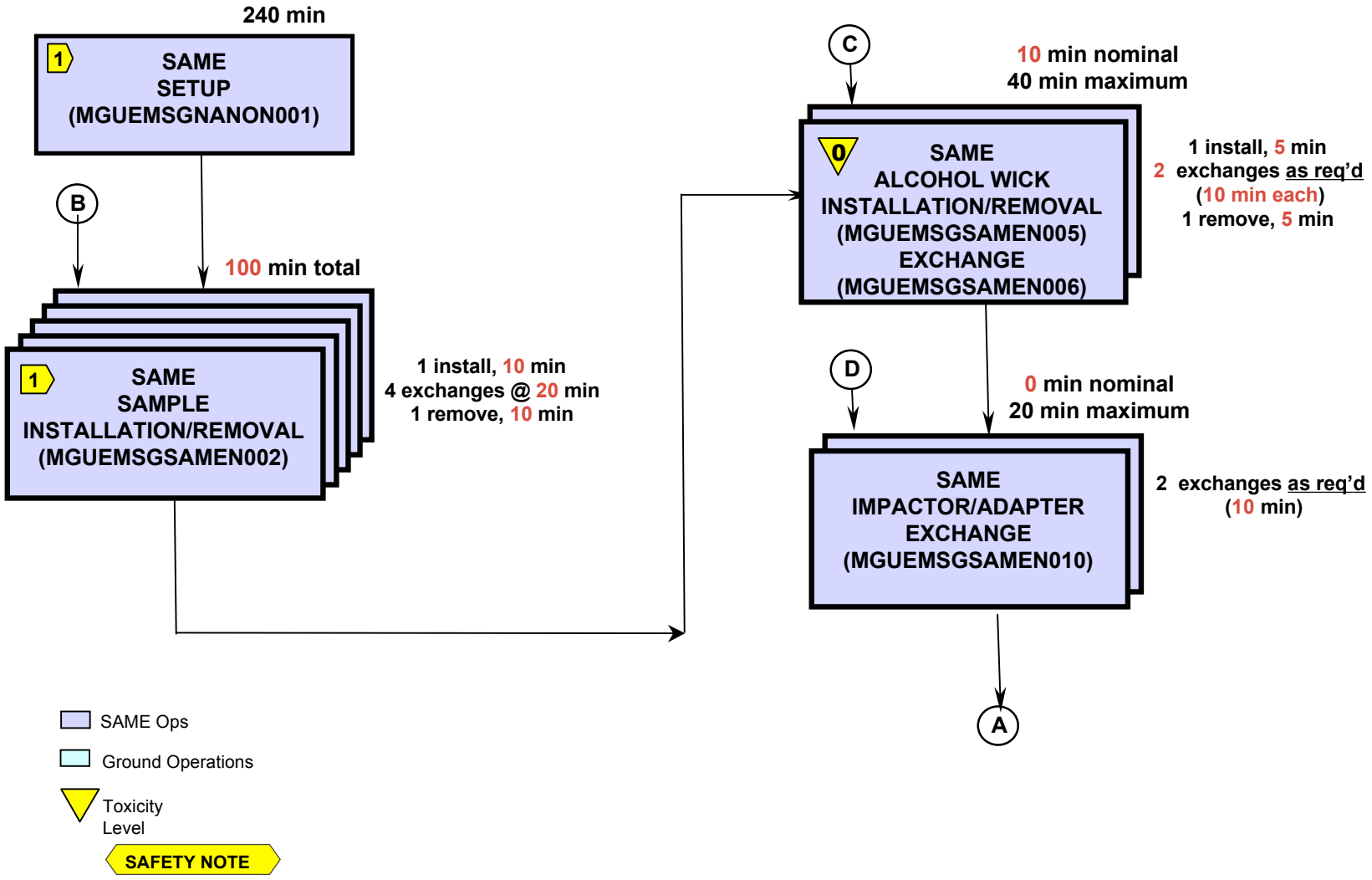
Operations
SAME



1. Frangible Material.

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