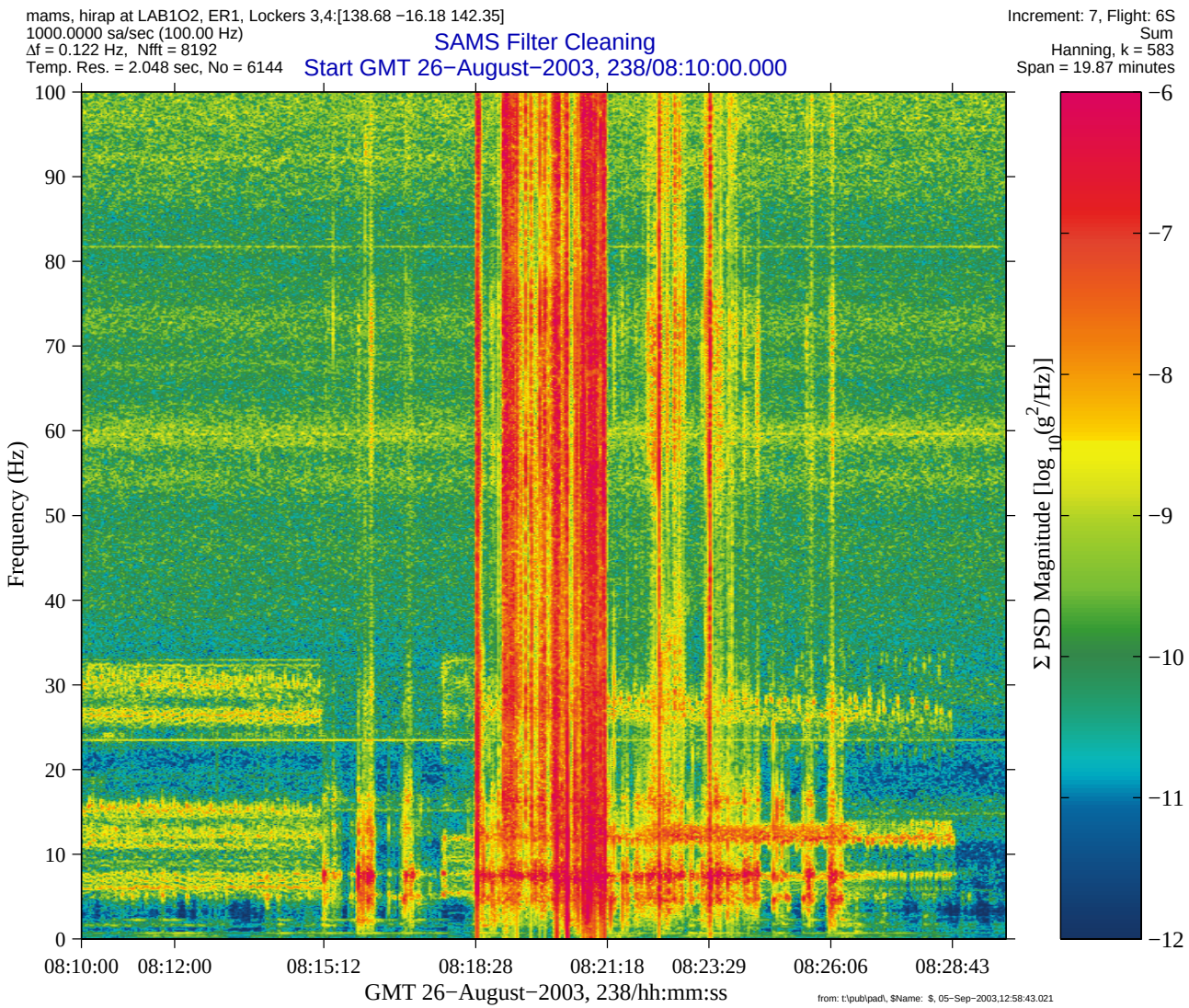
SAMS Filter Cleaning
Qualify



Data Description	
Sensor	MAMS HiRAP 100.0 sa/sec (1000.00 Hz)
Location	LAB1O2, ER1, Lockers 3,4
Inc/Flight	Increment: 7 Flight: 6S
Plot Type	

Notes:
Periodic SAMS drawer filter cleanings are required for maintenance and to help ensure ongoing vibratory acceleration measurement and data collection. During this activity, the normal course of events is as follows:

- ground command powers off all 3 drawers
- crew cleans filters on all 3 drawers during the same session by pulling each drawer out 5 or 8 inches and removing any debris with gray tape or the vacuum
- crew reinserts drawers and mates any cables that may have needed to be moved
- crew powers up interim control unit and laptop
- ground powers on RTS drawers

Since SAMS was powered off for this cleaning, the event had to be characterized by another accelerometer system. In this case, MAMS HiRAP was used.

Regime:	Transient
Category:	Crew
Source:	SAMS Filter Cleaning

Microgravity Science Division

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PIMS ISS Acceleration Handbook
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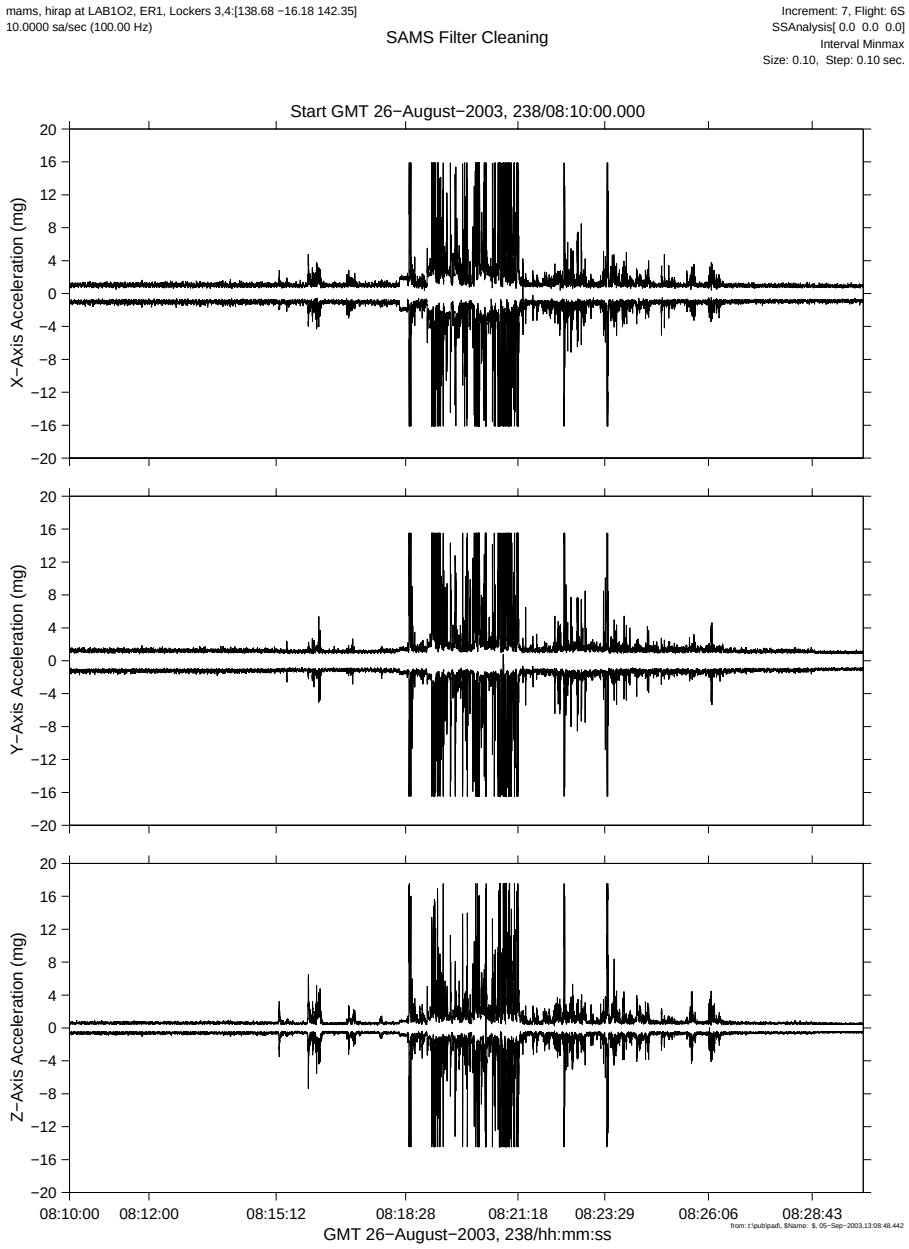
SAMS Filter Cleaning
Quantify



Data Description	
Sensor	MAMS HiRAP 100.0 sa/sec (1000.00 Hz)
Location	LAB1O2, ER1, Lockers 3,4
Inc/Flight	Increment: 7 Flight: 6S
Plot Type	interval min/max

Notes:
In order to perform SAMS filter cleanings, the crew can potentially introduce large transients into the acceleration environment. These impulsive accelerations take place over about 10 minutes, which is the nominal span of time required to do this maintenance. The 0.1-second interval min/max figure shown here was computed from MAMS HiRAP measurements made in the same rack (ER1) as the drawers that contain the SAMS filters. As a result, the accelerations recorded there were expectedly high. In fact, the MAMS HiRAP sensor was saturated at 16 mg (per-axis) and therefore acceleration vector magnitude excursions were greater than 27 mg. The dynamic range of the HiRAP sensors prohibited detection of how much above 27 mg those impulses actually were. Maintenance such as this SAMS filter cleaning can be coordinated with payload planners in an effort to mitigate the impact on nearby investigations.

Regime:	Transient
Category:	Crew
Source:	SAMS Filter Cleaning

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