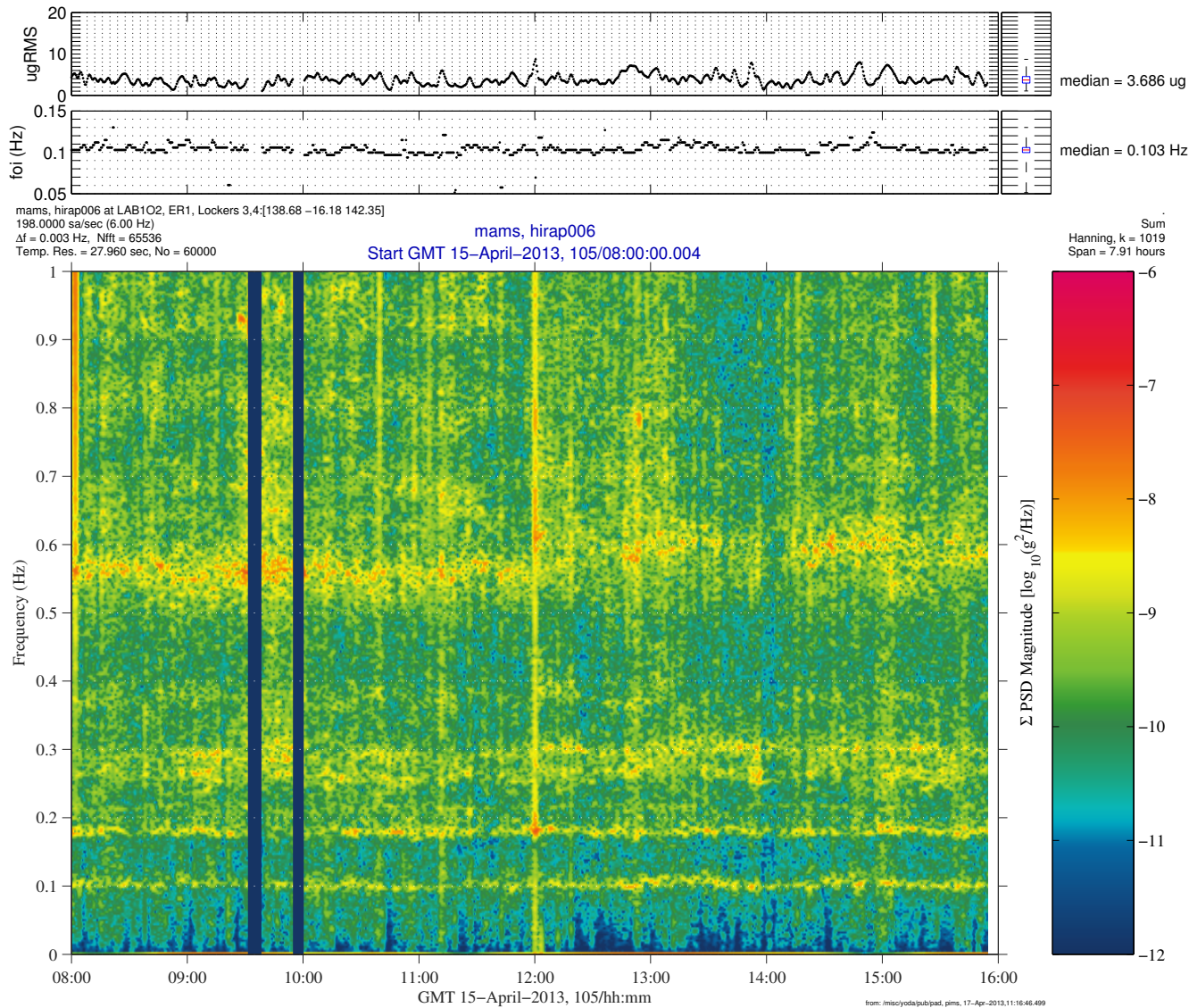


Maneuver to Post Undock Torque Equilibrium Attitude (TEA) with Control Moment Gyros (CMGs) - Qualify



Description	
Sensor	HiRAP 198 sa/sec (6 Hz)
Location	LAB102, ER1, Lockers 3,4
Plot Type	spectrogram (Σ); $f < 1$ Hz

Notes:

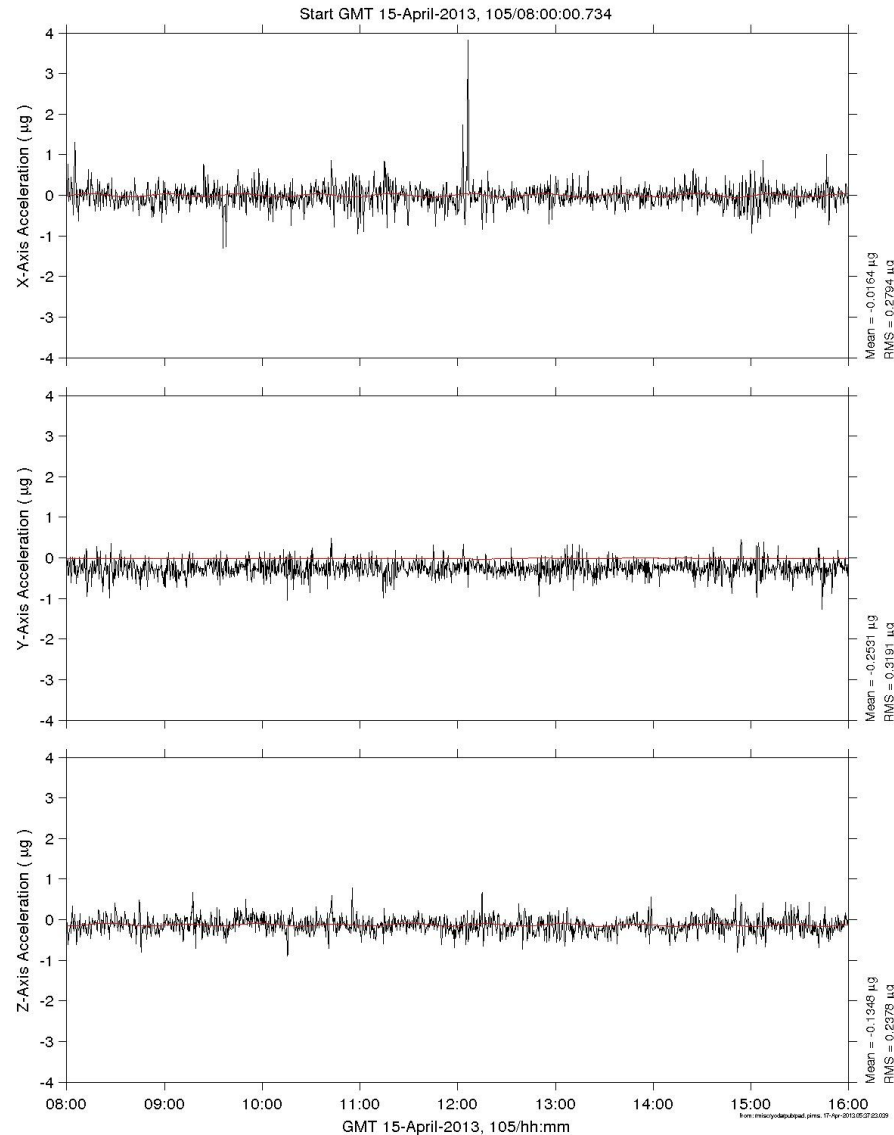
- After the Progress 49P vehicle undocked from the ISS on GMT 15-April-2013 at about 12:00, the ISS maneuvered to its desired Torque Equilibrium Attitude (TEA) using only its Control Moment Gyros (CMGs). As a result, no propellant was used.
- This spectrogram shows the transient impact of the undocking separation event at just after 12:00, but note the lack of discernible impact from the maneuver during CMG activity between 12:20 and 12:25.

Regime:	Vibratory
Category:	Vehicle
Source:	Maneuver



Maneuver to Post Undock Torque Equilibrium Attitude (TEA) with Control Moment Gyros (CMGs) - Quantify

mams_ossbmf at LAB102, ER1, Lockers 3,4 [135.28 -10.68 132.12] Quasi-steady Roadmap
 0.0625 sa/sec (0.01 Hz) RED LINE IS RADGSE SSAnalysis[0.0 0.0 0.0]
 DELTAS (ossbmf - radgse): X = -0.0135, Y = -0.2367, Z = -0.0056 (μg)



Description	
Sensor	OSS 0.0625 sa/sec (0.01 Hz)
Location	LAB102, ER1, Lockers 3,4
Plot Type	Acceleration vs. time

Notes:

- This 3-panel plot of acceleration versus time from MAMS OSS best trimmed-mean filter data shows the transient impact of the undocking separation event at just after 12:00, but again note the lack of discernible impact from the maneuver during CMG activity between 12:20 and 12:25.
- Not only did this maneuver save propellant, it also preserved status quo with regards to the microgravity environment.

Regime:	Quasi-Steady
Category:	Vehicle
Source:	Maneuver

