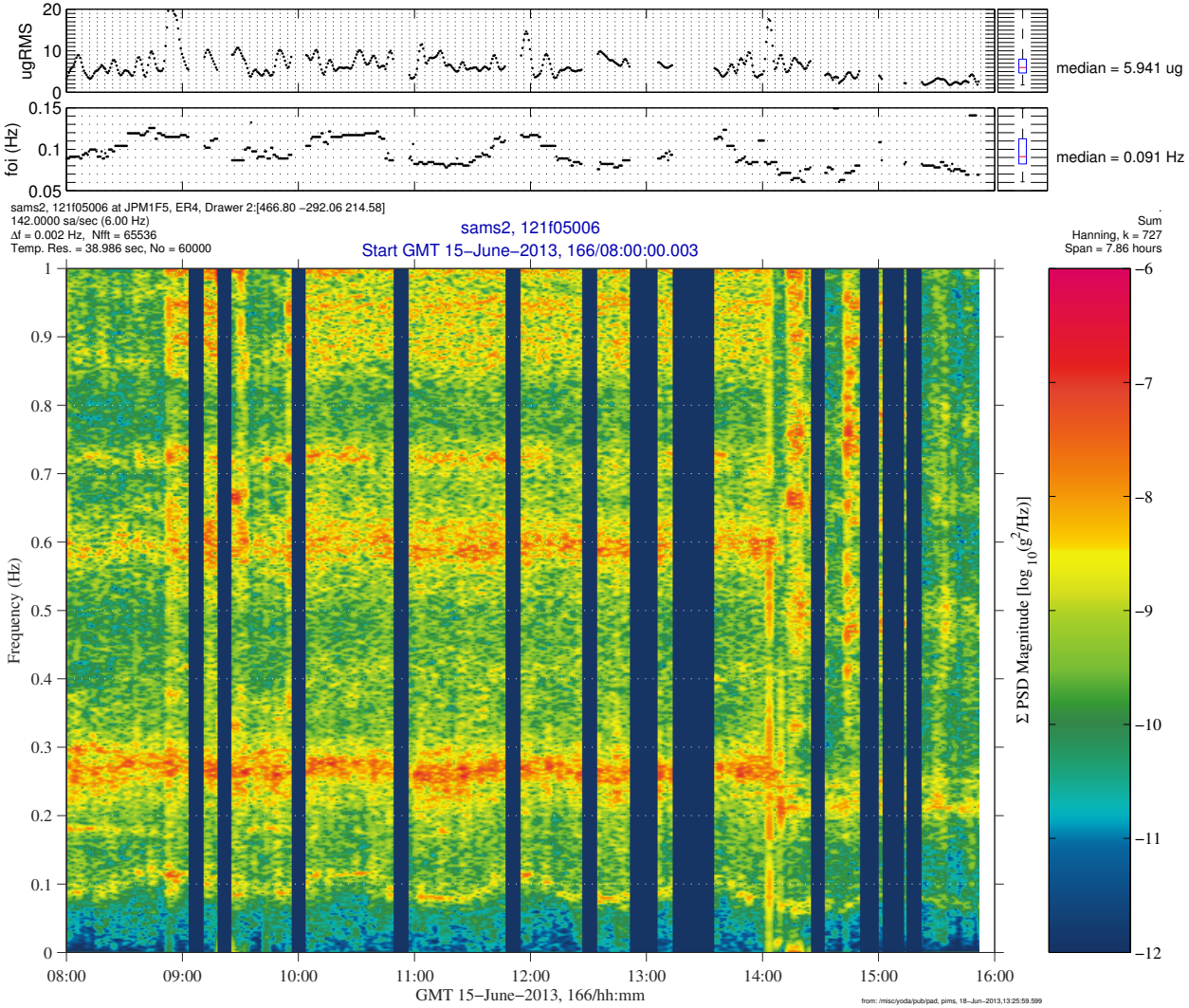
ATV-4 Docking
Qualify



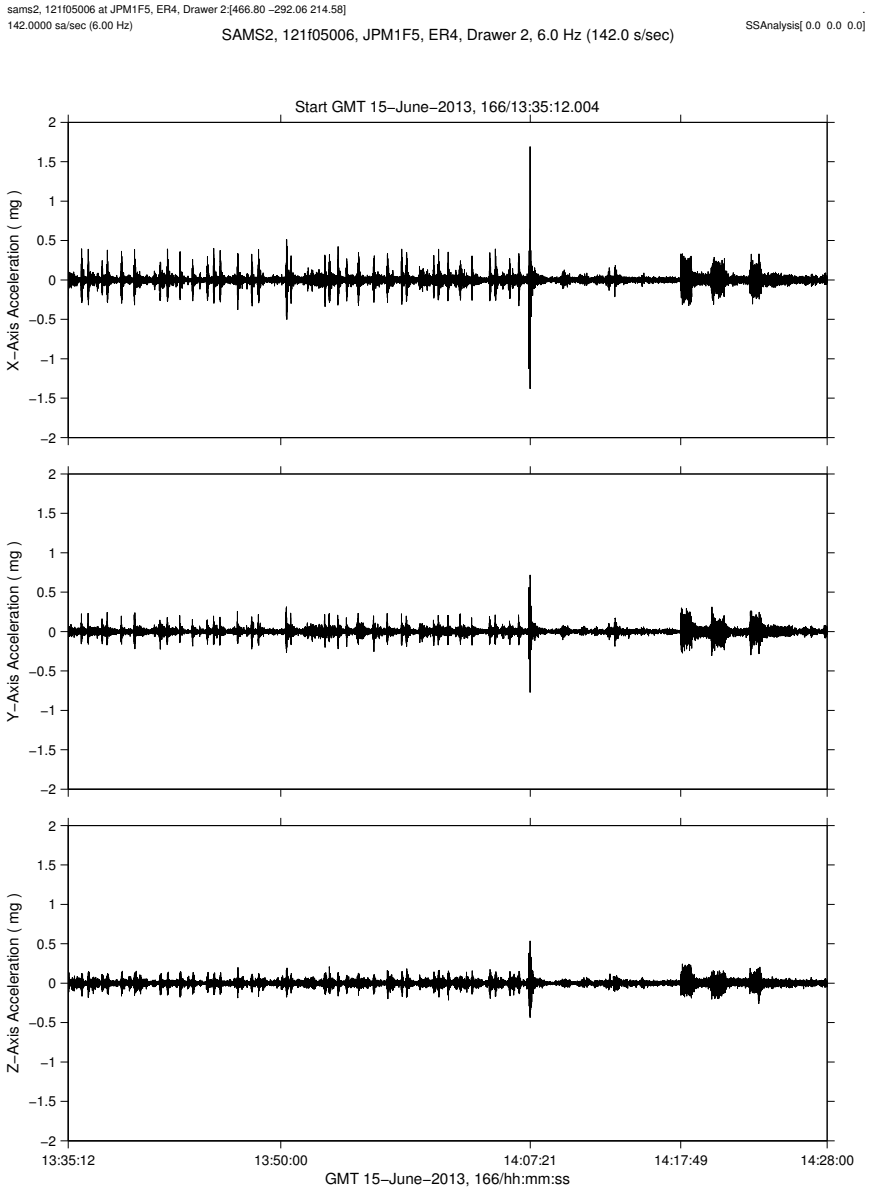
Description	
Sensor	121f05 142 sa/sec (6 Hz)
Location	JPM1F5, ER4, Drawer 2
Plot Type	spectrogram (Σ); f < 1 Hz

Notes:

- The ATV-4 cargo vehicle was reported to have docked with the ISS at about GMT 15-June-2013,14:07:21. SAMS measurements made in the JEM closely match this time with an impulse registered within one second of that time as seen by the vertical orange-to-red-ish streak.
- This spectrogram also shows a shift down in frequency in the structural regime after the heavy ATV-4 docked to the Zvezda module.
- Another interesting note can be seen here related to “mode one” at about 0.1 Hz. Both port and starboard solar array joints were locked for this event and this was manifest as the sinusoidal-varying “mode one” around 0.1 Hz.

Regime:	Vibratory
Category:	Vehicle
Source:	ATV-4 Docking

ATV-4 Docking
Quantify



Description	
Sensor	121f05 142 sa/sec (6 Hz)
Location	JPM1F5, ER4, Drawer 2
Plot Type	Accel. vs. time; f < 6 Hz

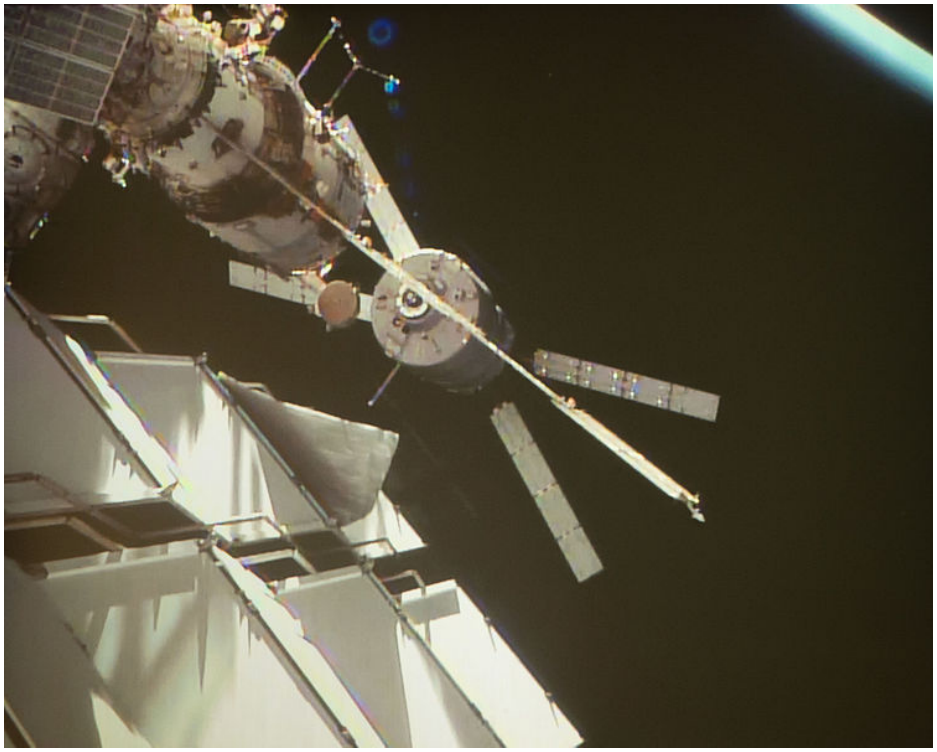
Notes:

- The primary jolt at first contact between the ATV-4 cargo vehicle and the ISS is seen in the X-axis from these acceleration versus time plots of 6 Hz low-pass filtered SAMS measurements made in the JEM.
- The peak acceleration magnitude was just under 2 mg on the X-axis.
- The loud disturbances seen starting just after 14:17:49 show the effects of the ISS returning to attitude control via thrusters.

Regime:	Vibratory
Category:	Vehicle
Source:	ATV-4 Docking

ATV-4 Docking
Ancillary Information

The Albert Einstein ATV-4 cargo vehicle carried supplies to the ISS along with fuel, water, and air to ensure the continued operation of the station. Also, with its own thrusters and fuel supply, it will be used to reboost the ISS, in order to counteract the drag the residual atmosphere imposes on the station.



ATV-4 Cargo Ship Approaching the ISS