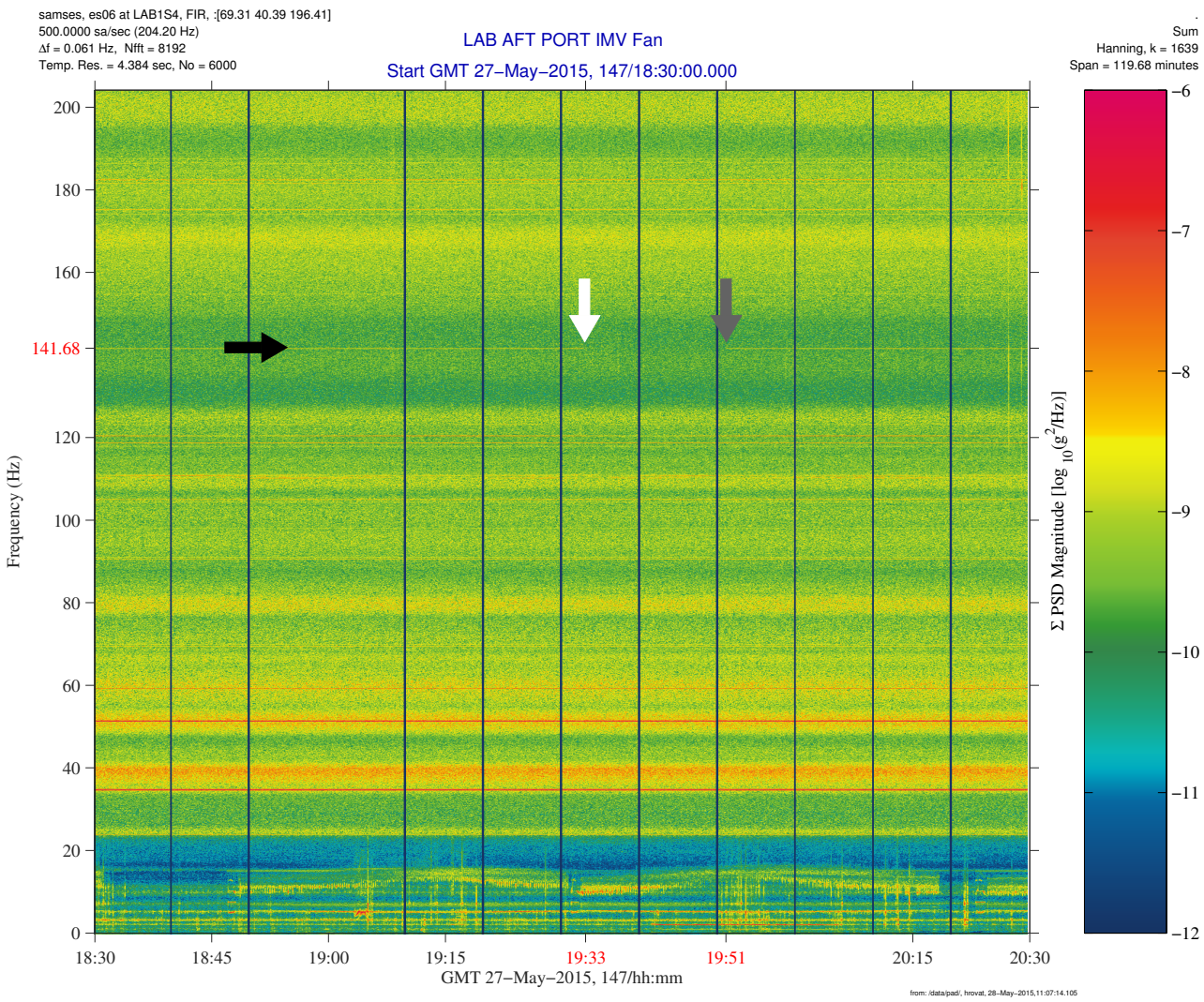
LAB AFT Port IMV Fan Qualify



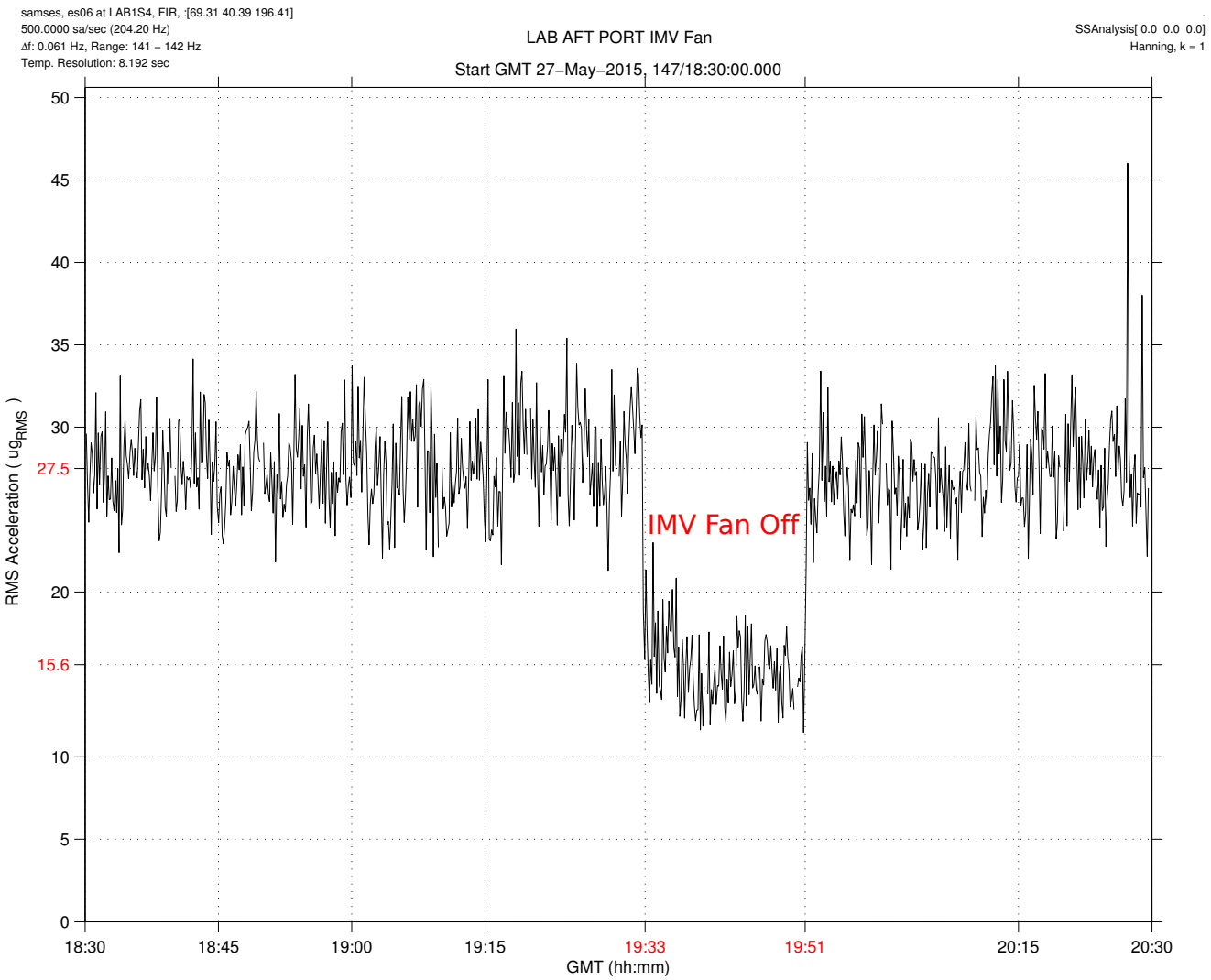
Description	
Sensor	SAMS es06 500.0 sa/sec, 204.2 Hz
Location	LAB1S4, FIR
Plot Type	Spectrogram

Notes:

- This 2-hour spectrogram clearly shows a faint (yellow), narrowband spectral peak at 141.68 Hz (about 8500 RPM) that turns off at about GMT 19:33 and back on at GMT 19:51.
- These on/off times of this faint trace measured at the SAMS Fluids Integrated Rack (FIR) location show strong correlation with crew-reported times (see last page) for ETHOS turning off (then back on) of the LAB Aft Port IMV Fan.

Regime:	Vibratory
Category:	Equipment
Source:	LAB AFT Port IMV Fan

LAB AFT Port IMV Fan Quantify



Description	
Sensor	SAMS es06 500.0 sa/sec, 204.2 Hz
Location	LAB1S4, FIR
Plot Type	RMS Acceleration vs. Time

Notes:

- This plot shows the RMS acceleration between 141 and 142 Hz for the same 2-hour window as the spectrogram shown on the first page.
- This plot helps quantify the vibratory impact of the LAB Aft Port IMV Fan at the SAMS sensor location in the Fluids Integrated Rack (FIR).
- We note the RMS levels (in the narrow one-hertz-wide band between 141 and 142 Hz) as about:
  - 27.5 ugRMS while the fan was ON
  - 15.6 ugRMS while the fan was OFF

Regime:	Vibratory
Category:	Equipment
Source:	LAB AFT Port IMV Fan

LAB AFT Port IMV Fan
Ancillary Notes

Around the time of an evening conference, the crew reported a cyclic vibration that went away when ETHOS turned off the LAB AFT PORT IMV Fan at GMT 147/19:32. It was turned back on at GM 147/19:50. A look at the spectra from SAMS sensors mounted on EXPRESS Rack 1 (ER1) and EXPRESS Rack 2 (ER2) did not reveal good correlation with these times. For example, the sensor mounted on ER2 (SAMS S/N 121-f03 sensor) had a strong ~142 Hz narrowband spectral peak that obscured detection of this other “far away” vibratory disturbance.