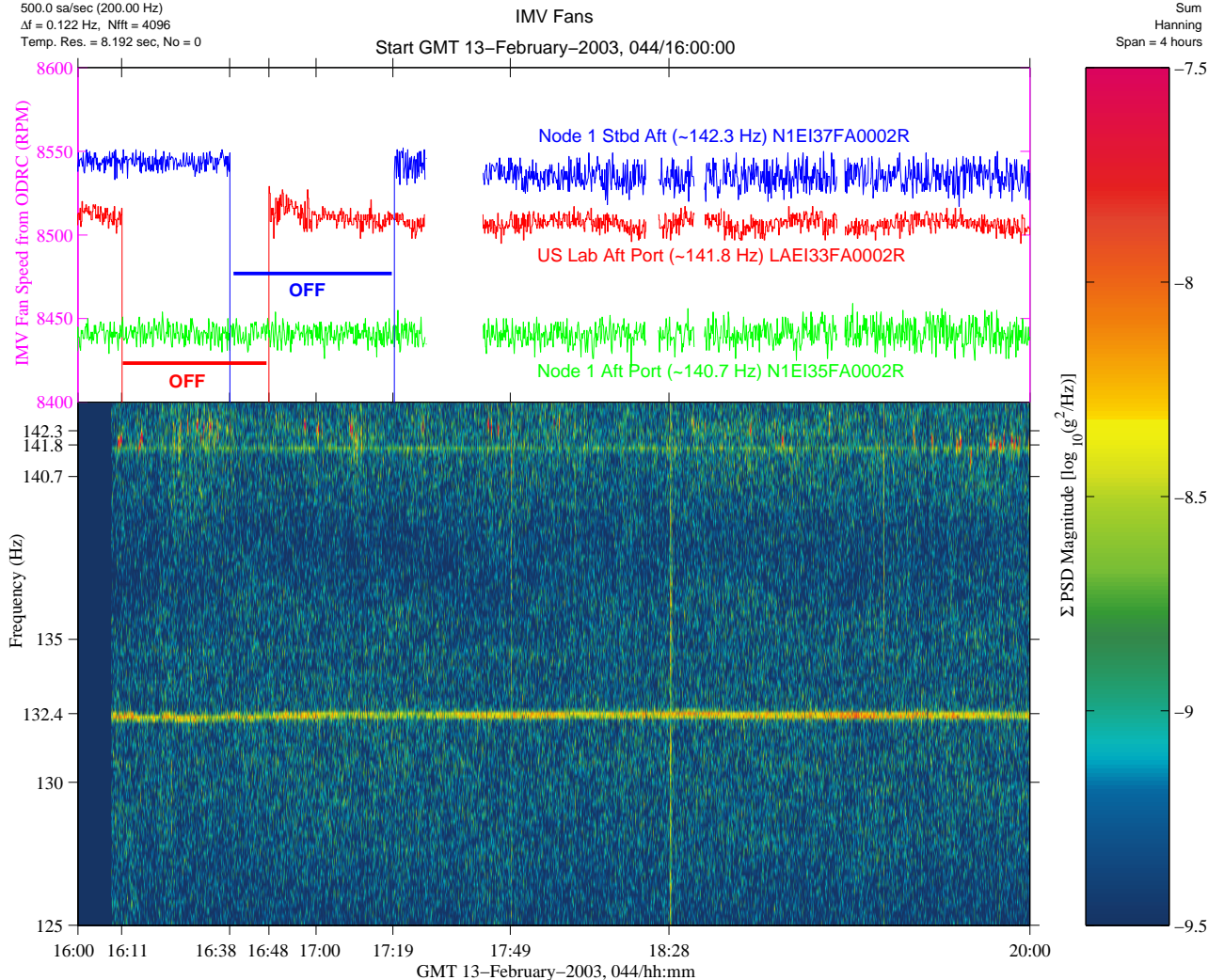


## Intermodule Ventilation (IMV) Fans Quality

sams2, 121f04 at LAB1O2, ER1, Lower Z Panel:[149.54 -40.54 135.25]  
500.0 sa/sec (200.00 Hz)  
 $\Delta f = 0.122$  Hz, Nfft = 4096  
Temp. Res. = 8.192 sec, No = 0



Data Description	
Sensor	SAMS 121f04 500.0 sa/sec (200.00 Hz)
Location	LAB1O2, ER1, Lower Z Panel
Inc/Flight	Increment: 6, Flight: 11A
Plot Type	spectrogram

### Notes:

The Intermodule Ventilation (IMV) fan provides air circulation between the major pressurized U.S. and international modules. The IMV assembly includes a fan, electronics, and acoustic wrap. Nominally, the fan rotates at a constant speed of  $8,511 \pm 170$  RPM or  $141.85 \pm 2.83$  Hz (frequency range from 139.02 to 144.68 Hz). The figure shows that while SAMS measurements include a spectral peak at the expected frequency for the US Lab Aft Port IMV fan (~141.8 Hz), independent speed data for IMV fans from a vehicle database maintained at the Johnson Space Center (JSC) refute this fact. The JSC database indicates that this fan was off from about 16:11 until about 16:48, yet the SAMS data shows the spectral peak at ~141.8 Hz persists over this time frame. Therefore, no positive identification of IMV fan disturbance in SAMS data yet.



Regime:	Vibratory
Category:	Vehicle
Source:	Intermodule Ventilation (IMV) Fans



Microgravity Science Division



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