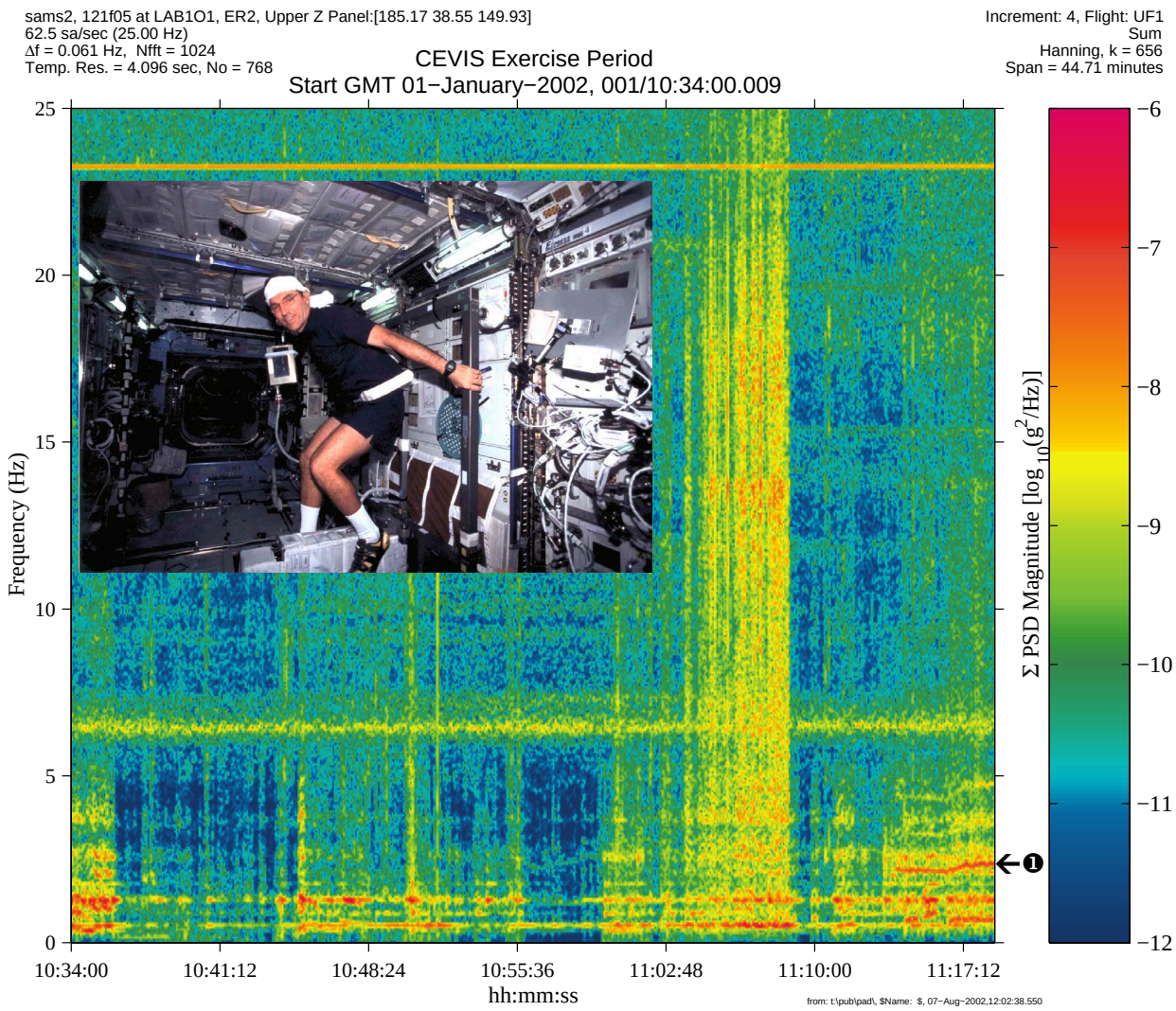
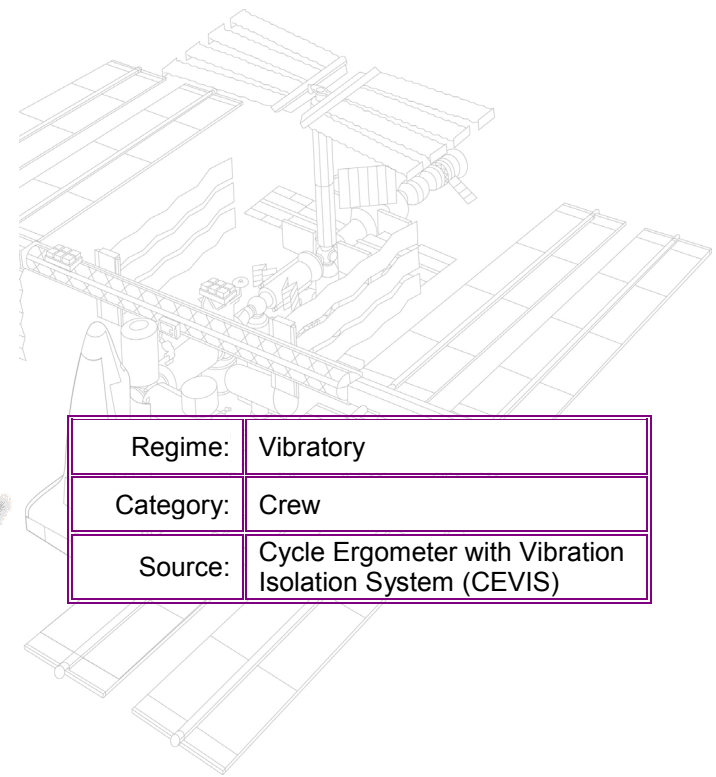
Cycle Ergometer with Vibration Isolation System (CEVIS)
QUALIFY



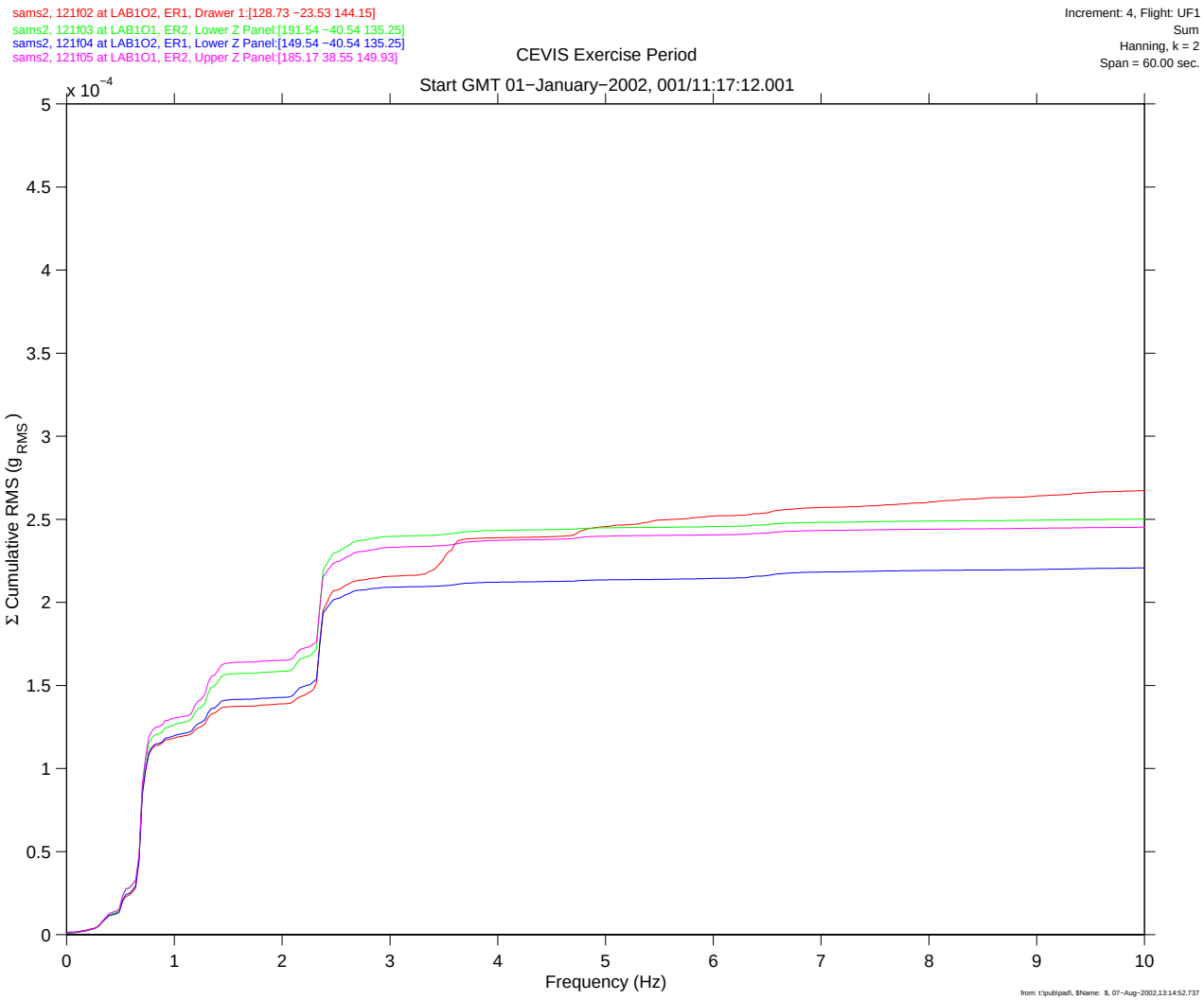
Data Description	
Sensor	121f05 62.5 sa/sec (25.00 Hz)
Location	LAB1O1, ER2, Light Tray
Inc/Flight	Increment: 4, Flight: UF1
Plot Type	spectrogram

Notes:
The CEVIS exercise device is located in the US Lab at LAB1P3. The narrowband peak at about 2.5 Hz marked on the lower right of the spectrogram is the pedaling frequency for this CEVIS exercise period. For Shuttle ergometer exercise, the pedaling signature was accompanied by that of shoulder sway with frequency around half the pedal rate. On the ISS for this CEVIS exercise period, the shoulder sway signature is obscured by structural modes that fall in the same frequency range.



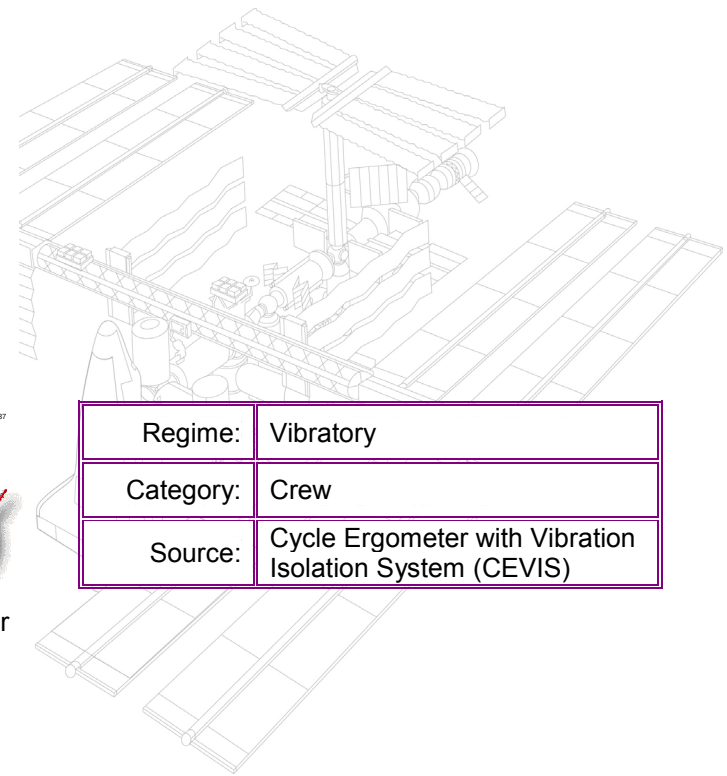
Regime:	Vibratory
Category:	Crew
Source:	Cycle Ergometer with Vibration Isolation System (CEVIS)

Cycle Ergometer with Vibration Isolation System (CEVIS)
QUANTIFY



Data Description	
Sensor	see upper left of figure
Location	see upper left of figure
Inc/Flight	Increment: 4, Flight: UF1
Plot Type	cumulative RMS

Notes:
To quantify the impact of a CEVIS exercise period from four sensor locations, the cumulative RMS acceleration versus frequency curves shown in the figure were computed. The legend at the upper left shows which trace was computed for each of the different sensors. The curves in this figure all step up about 70 ug_{RMS} at the pedaling frequency, but vary to some degree across the rest of the acceleration spectrum below 10 Hz. The variability is expected as the SAMS sensors used for the analysis were distributed throughout ER1 and ER2 as indicated by the legend.



Regime:	Vibratory
Category:	Crew
Source:	Cycle Ergometer with Vibration Isolation System (CEVIS)