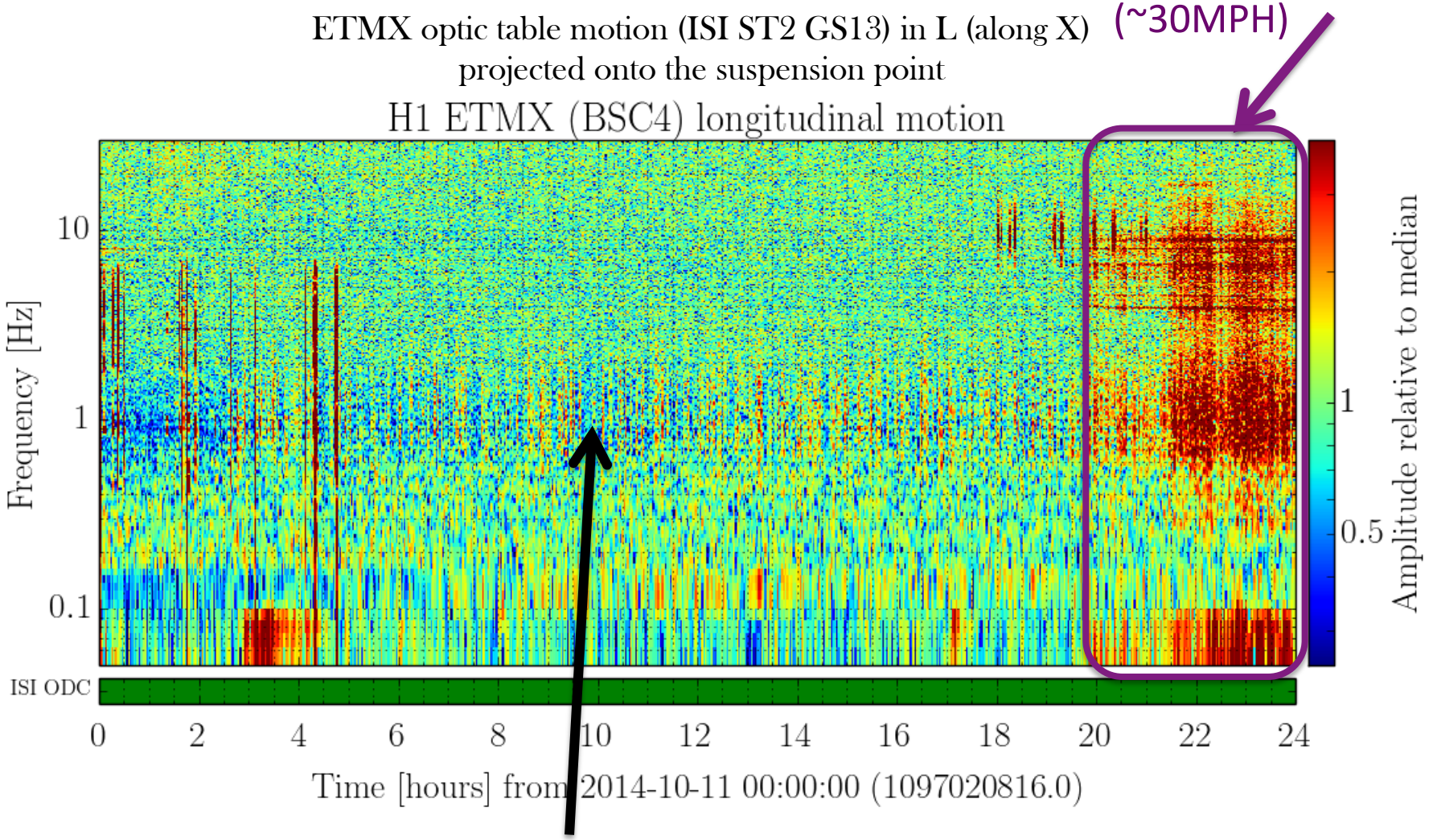
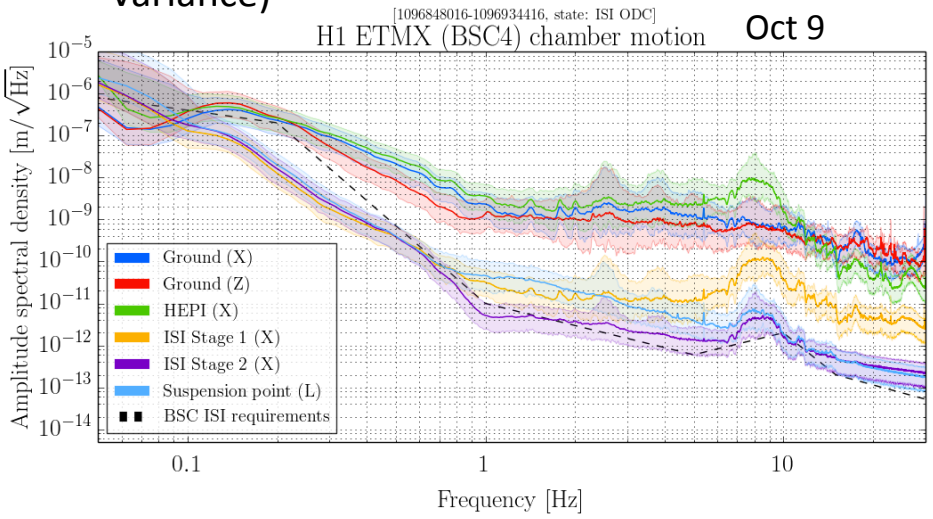
After~20:00 UTC, **high wind** (~30MPH)

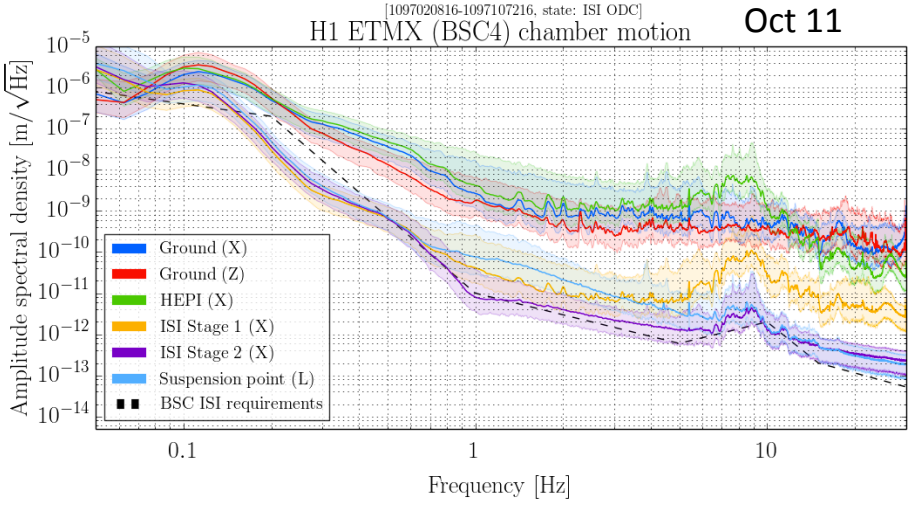


Most of the day, Oct 11, high microseism, low wind (~5MPH)

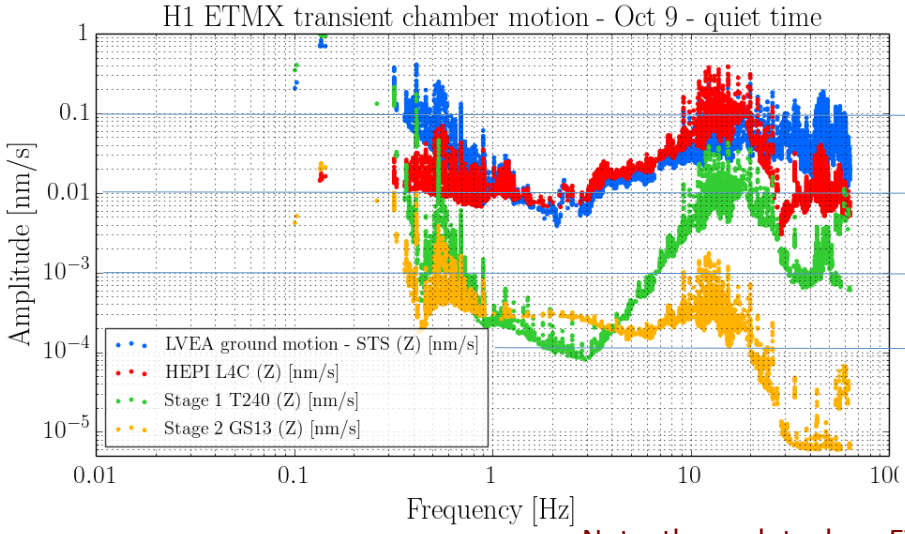
See the [detailed study page](#) for more info on environmental inputs of the study

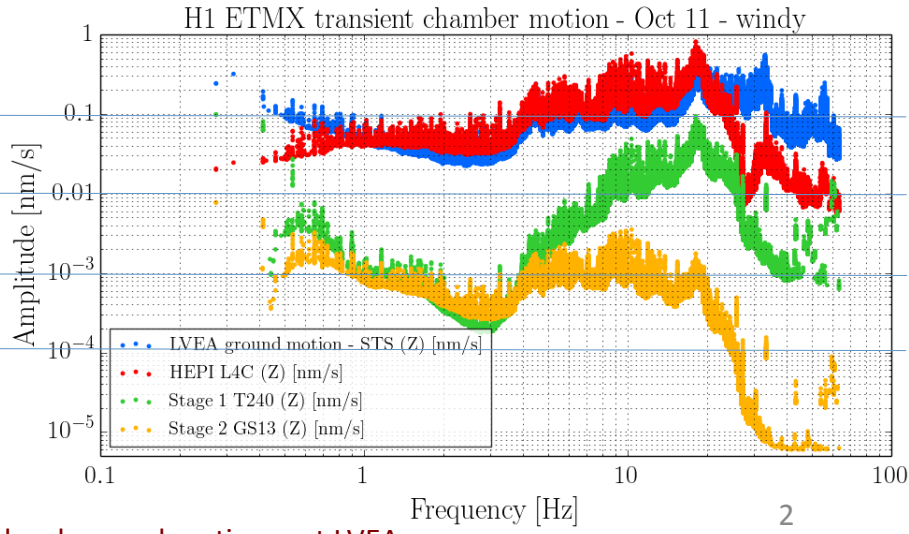
Spectra look roughly the same between Oct 9 ("quiet" reference day) and Oct 11th (windy day) with more spectral variance on Oct 11, as expected (transparent colors are 5% and 95% variance)





Below are Omicron triggers of two hours of "quiet" time (left) and "windy" time (right). Each dot is a transient event. Transient motion amplitude is very elevated during high wind for events of freq < ~30Hz.





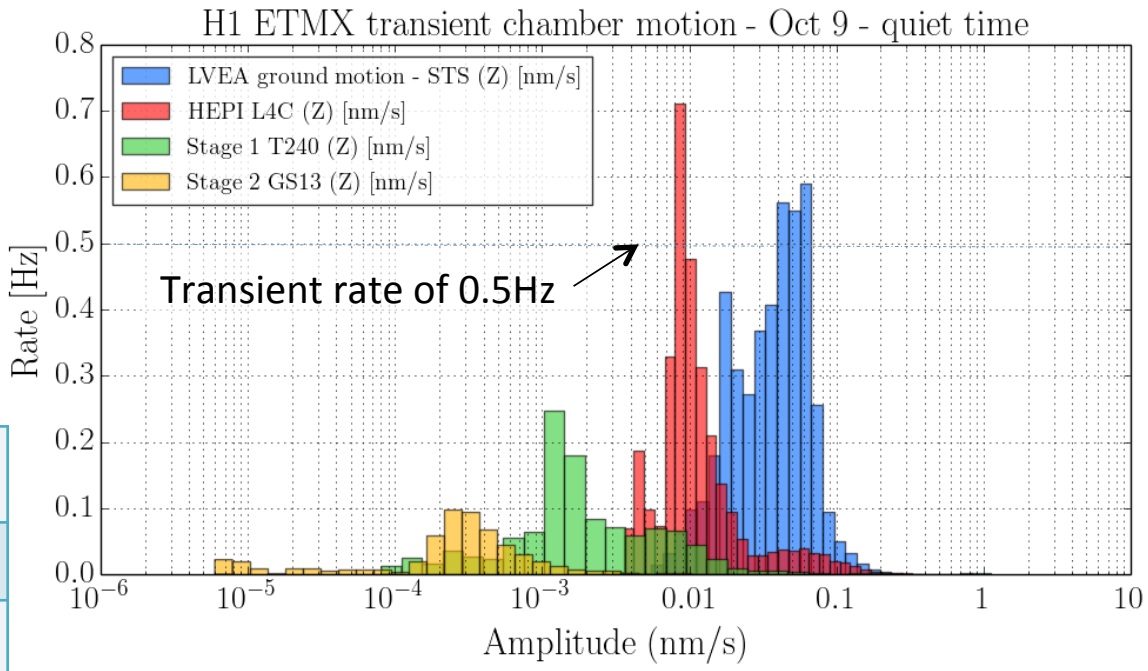
Note: these plots show ETMX local ground motion, not LVEA

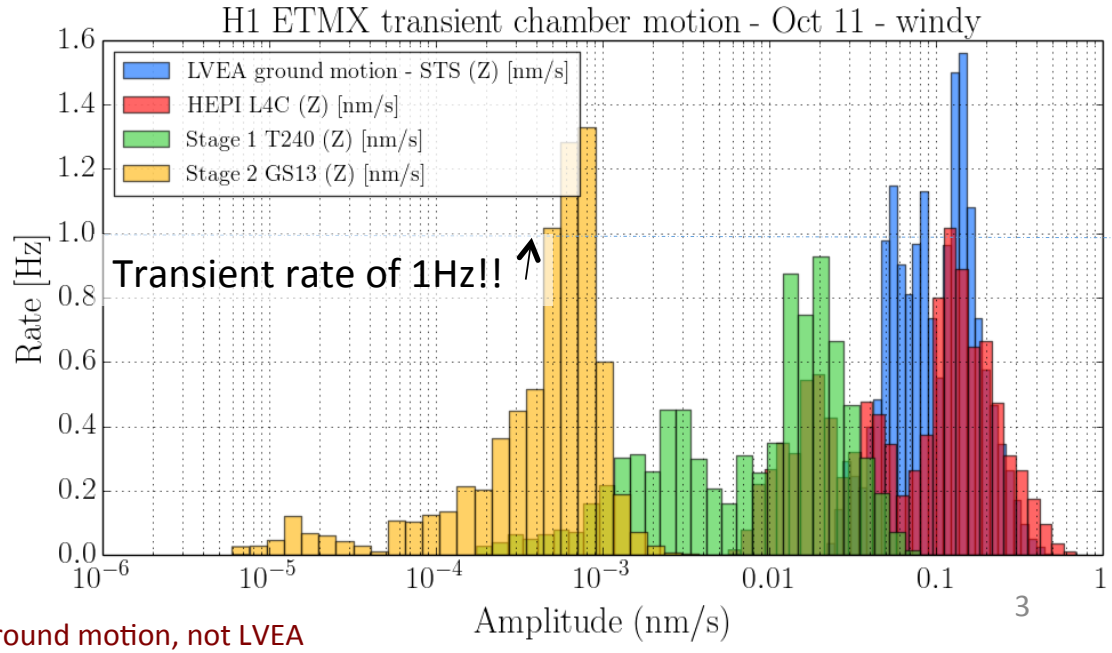
The rate of transient motion events also increases dramatically during windy time – by over a factor of 10 in optic table motion at end X.

Stage	Quiet* (# trigs)	Windy* (# trigs)	Factor increase
Ground motion	30,755	116,601	3.8
HEPI (L4C)	21,317	74,624	3.5
ISI ST1 (T240)	7,791	57,948	7.4
ISI ST2 (GS13)	3,924	49,562	12.6

* For a two hour period of relatively quiet or windy time

Isolated stages see a much greater increase in the rate of transients than ground motion during windy time. This was also observed in ITMY.





Note: these plots show ETMX local ground motion, not LVEA

Ultimately, at the optic table (ISI ST2), the transient motion amplitude per event isn't significantly increased in the GW band (above 10-15Hz), but the **rate** of transients is greatly increased. A similar effect was seen in ITMY.