

aLOG Review (LHO) Aug 09 - 15, 2015

SangHoon Oh

*KAGRA DetChar Call
Aug 18, 2015*



At 8:00am PDT / 10:00am CDT / 11:00am EDT / 15:00 UTC Monday, 2015 August 17, Engineering Run 8 started.

H1 SYS (GRD)

[Link](#) 

jameson.rollins@LIGO.ORG - posted 18:13, Monday 17 August 2015 (20613)

H1 now in OBSERVATION MODE

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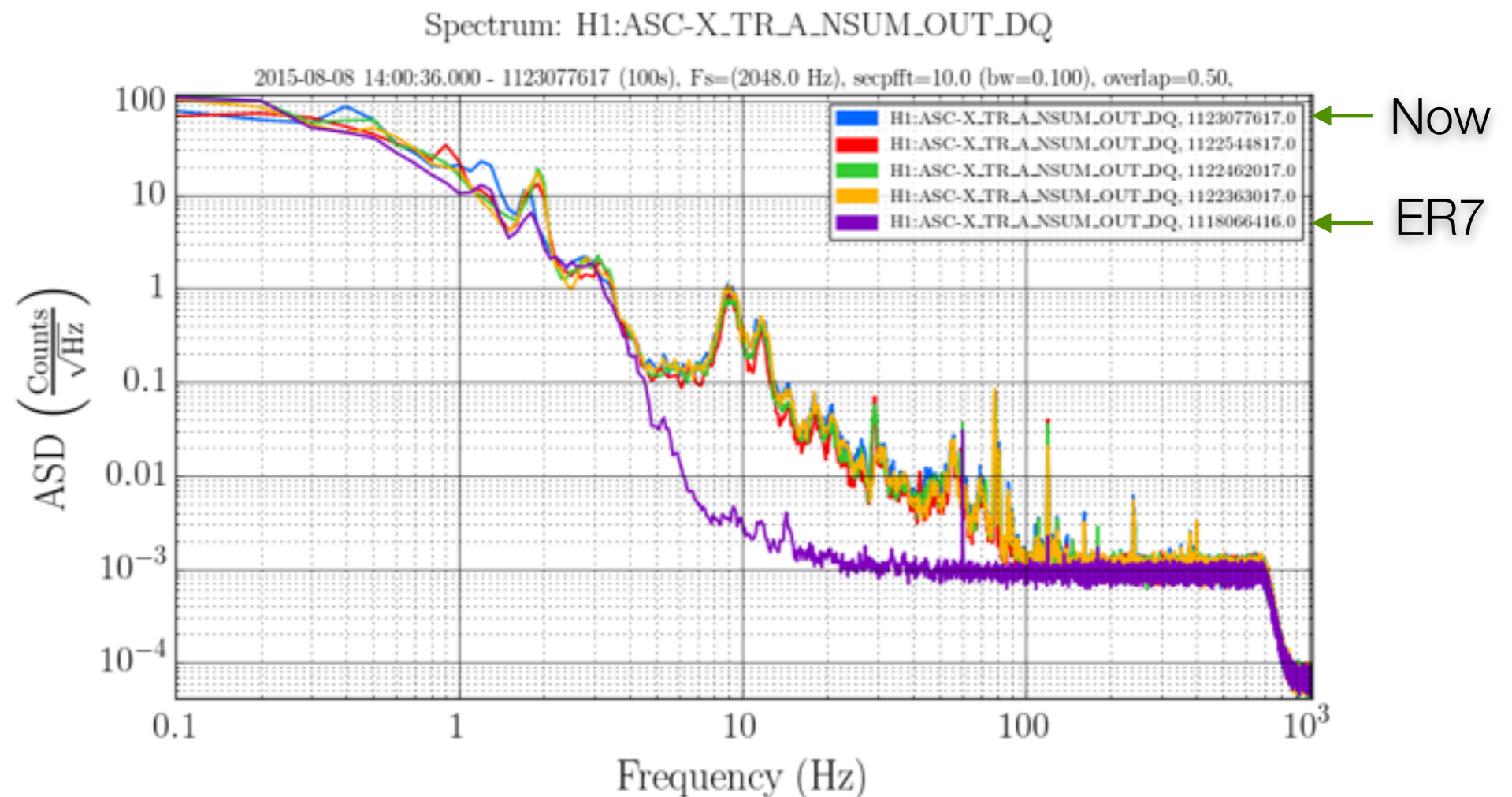
As per [LIGO-M1500250](#), H1 has now been put into "OBSERVATION MODE". This means:

The ODC-OPERATOR_OBSERVATION_READY bit, which is set to "Undisturbed" by the operator on the GUARD_OVERVIEW screen, will now be *automatically* unset by the Guardian IFO top node if any of the monitored guardian nodes drop from OK==True.

Excess Noise in ASC X_TR NSUM channels since ER7 [aLog20418]

Significant change in ADS of the NSUM of the ASC photodiodes at end X since ER7

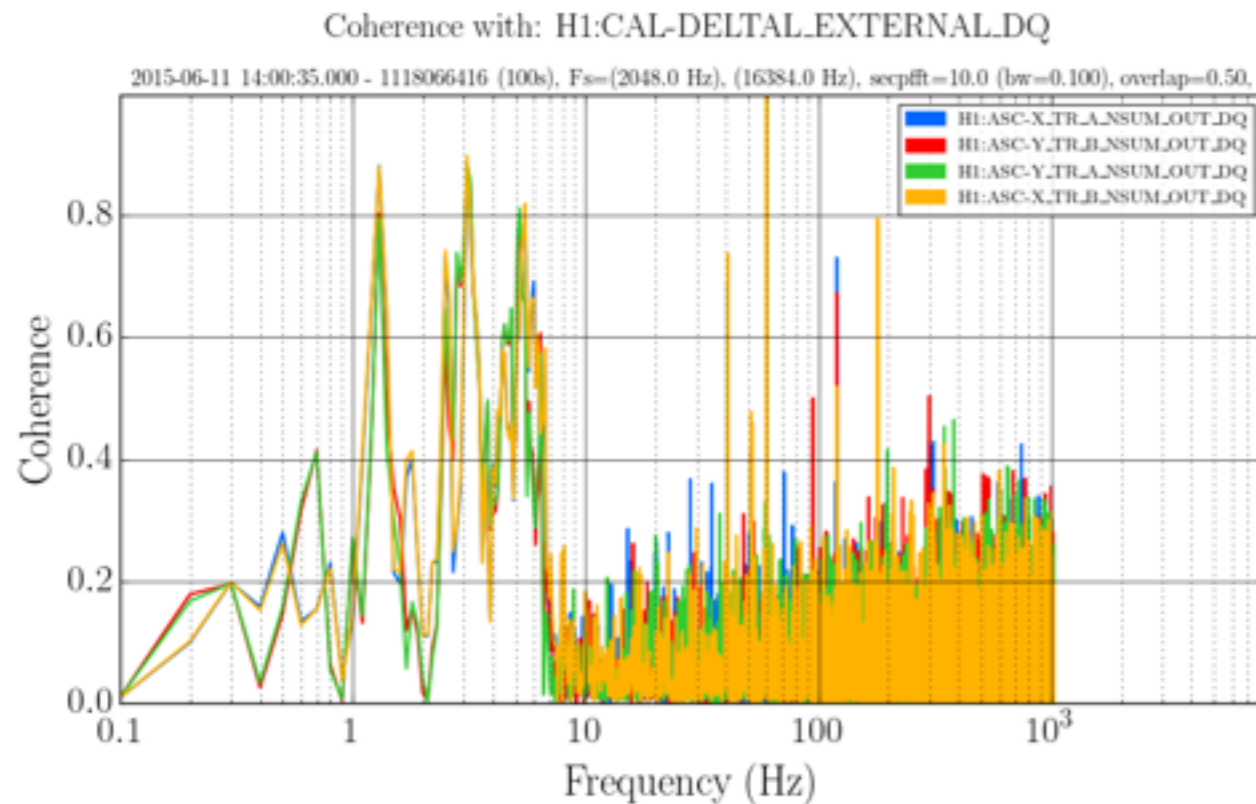
In particular, through July and August there is now a set of peaks at 9 and 10.2Hz and broadband noise in ASC-X_TR that was not there in ER7.



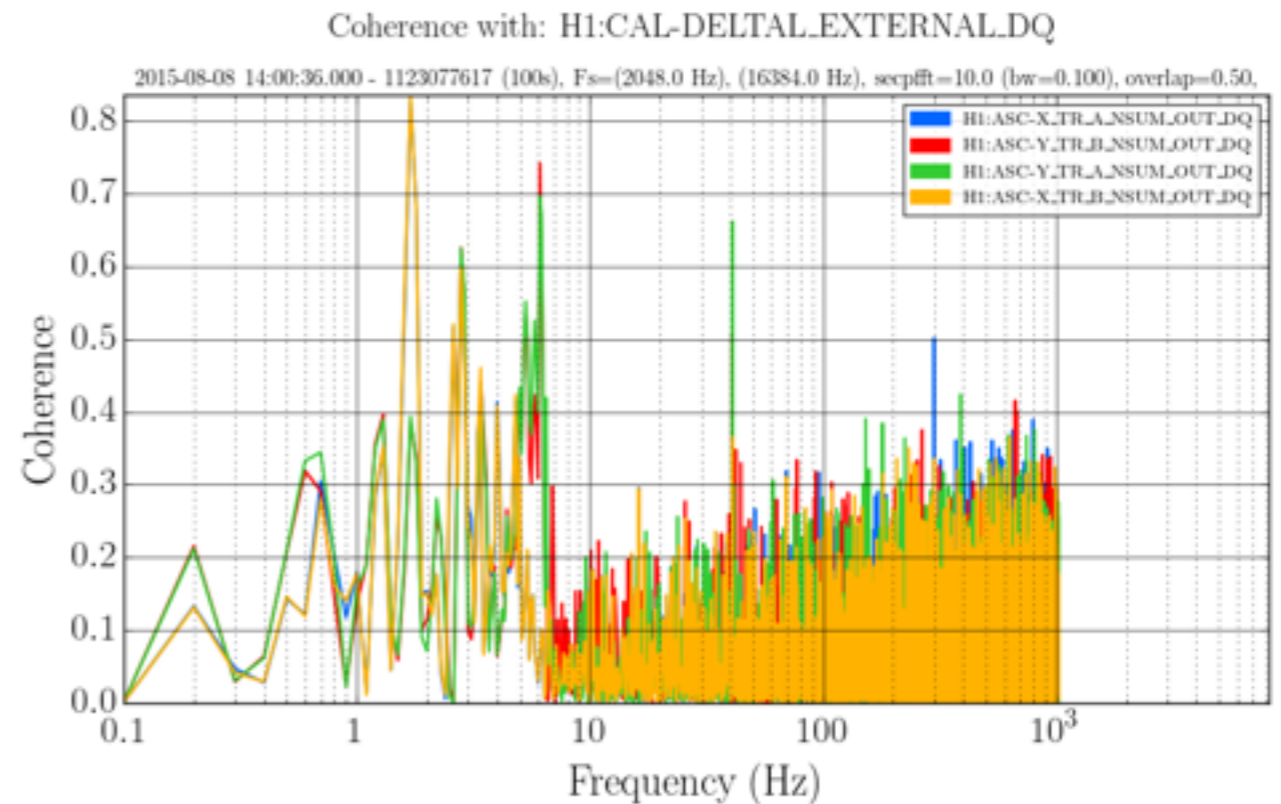
Excess Noise in ASC X_TR NSUM channels since ER7 [aLog20418]

No increased coherence in DARM, with respect to ER7,
except at 1.7Hz

ER7



Now



It is most likely due to poor alignment on the TR X ASC diode, coupling beam pointing into “fake” intensity noise.

Site Anthropogenic Noise Injections

[aLog20541]

Human disturbances injected in order to determine how sensitive we are to activities at the site and to help set rules for the O1 run

Injection	Time of first injection	Injection spacing (seconds)	Injection session duration and number of injection (seconds,
Truck (3808) horn at OSB recieving	15:09:00	5	30, 6
Truck (3808) horn at 2k electronics room building	15:09:00	5	30, 6
Truck (3808) sudden braking near 2k electronics building	15:16:00	5	30, 6
Quick human moves in the optics lab next to the input arm	15:23:00	5	60, 12
Human jumps in the change room	15:25:00	5	60, 12
Silver van horn, 2k electronics building area	17:04:00	5	30, 6
Silver van sudden brakes 2k electronics building area	17:05:00	5	30, 6
Silver van horn, high-bay area	17:08:00	5	30, 6
Siler van brakes high-bay area	17:10:00	5	30, 6
Car door slams, patio area	17:13:00	5	30, 6
Corolla car horn, parking area	17:16:00	5	30, 6

Abbreviations

- **REFL**: Reflected Light Port on ISCT1
- **BRS**: Beam Rotation Sensor
- **NB**: Narrow Band ('0.43 Hz only')
- **CPS**: Capacitive Position Sensor, an element of aLIGO seismic isolation system
- **SC**: Sensor Correction
- **ST1**: Stage 1 in ISI
- **ISI**: Internal Seismic Isolator
- **OMC**: Output Mode Cleaner
- **DCPD**: DC Photodiode
- **PSL**: Pre-Stabilized Laser
- **FSS**: Frequency Stabilization Servo
- **OLGTFs**: Open Loop Gain Transfer Functions
- **SRCL**: Signal Recycling Cavity Length
- **PIT**: Pitch
- **AS**: Anti-symmetric
- **ASC**: Alignment Sensing and Control (6 DoFs)
- **QPD**: Quadrant Photo Diode