LHO aLog

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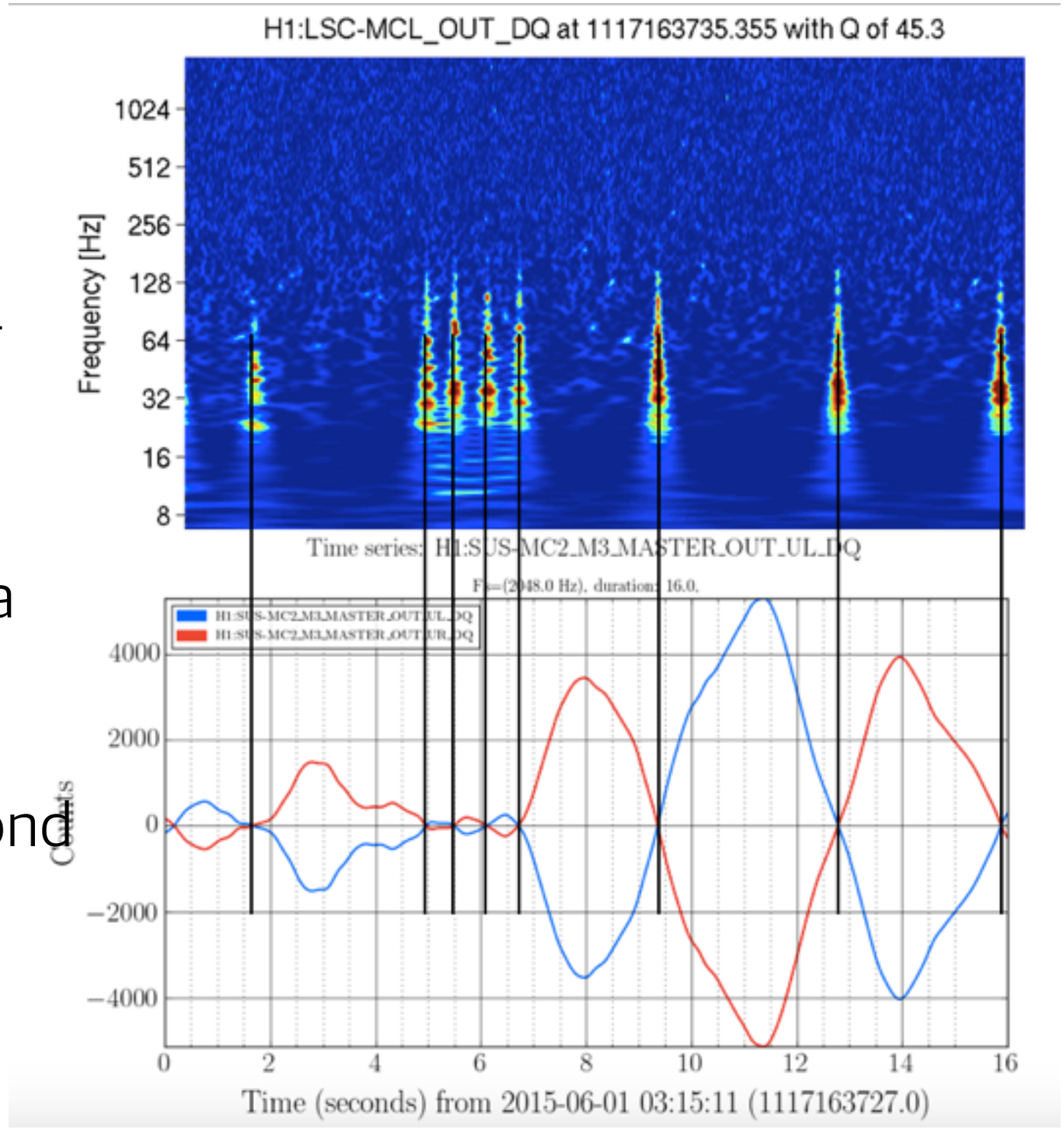
DAC zero crossing glitches

- https://alog.ligo-wa.caltech.edu/aLOG/index.php?callRep=18739

- DAC glitches in MC2 M3

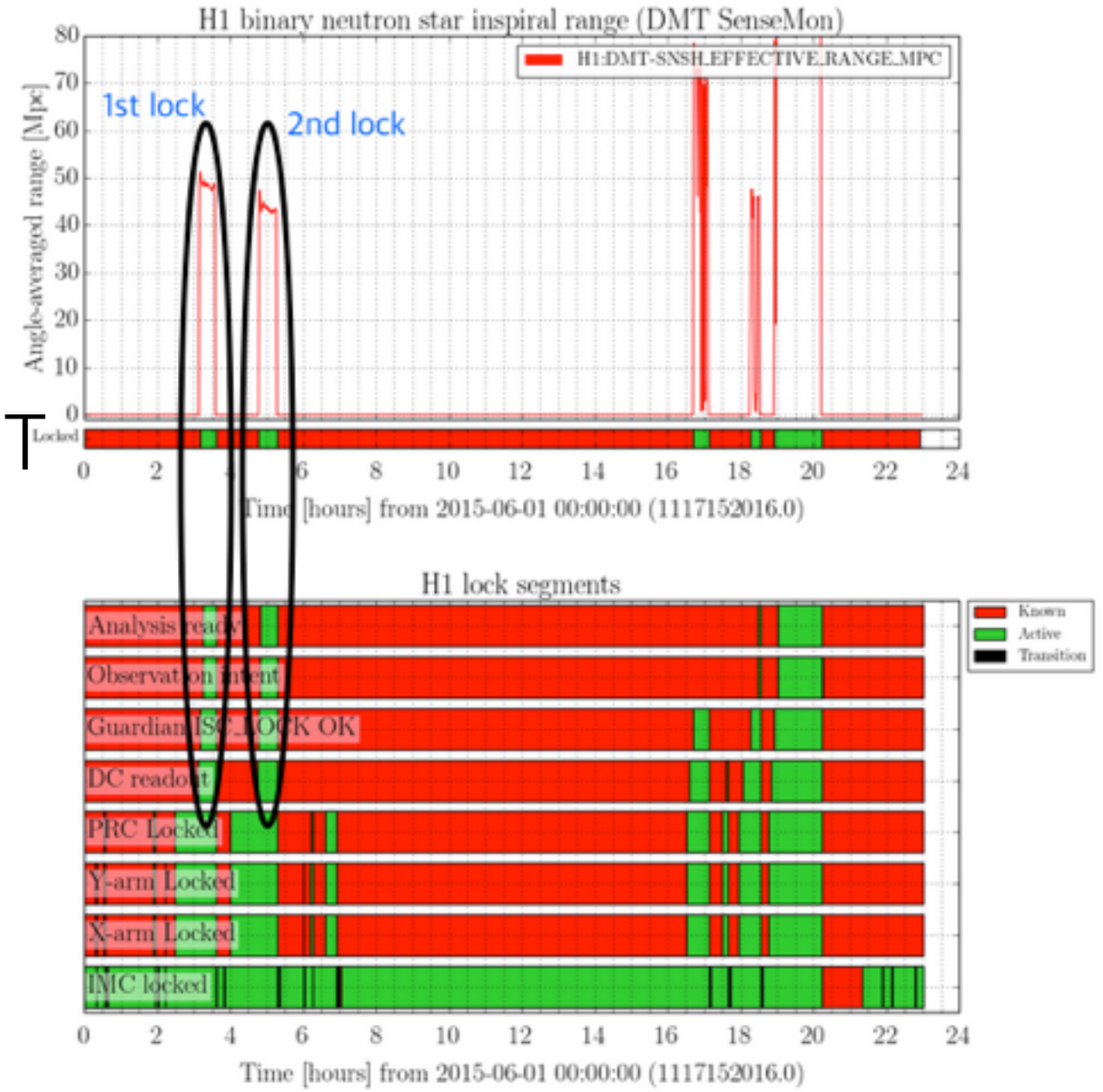
- The first plot is an Omega scan showing glitches in MC_L, and the second shows that they correspond to zero crossings in MC2 M3 control.



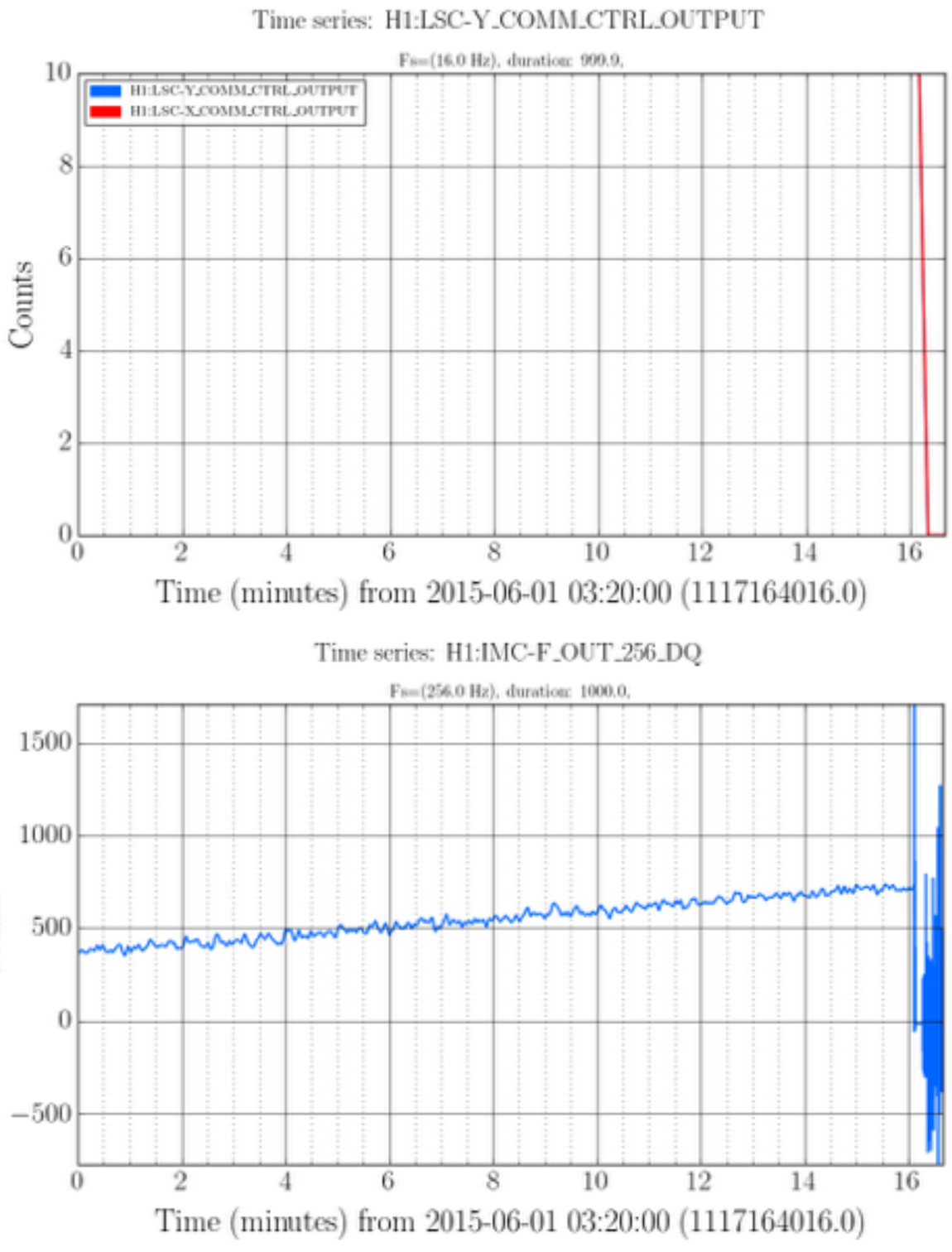
Common tidal saturating

- https://alog.ligo-wa.caltech.edu/aLOG/index.php?callRep=18748

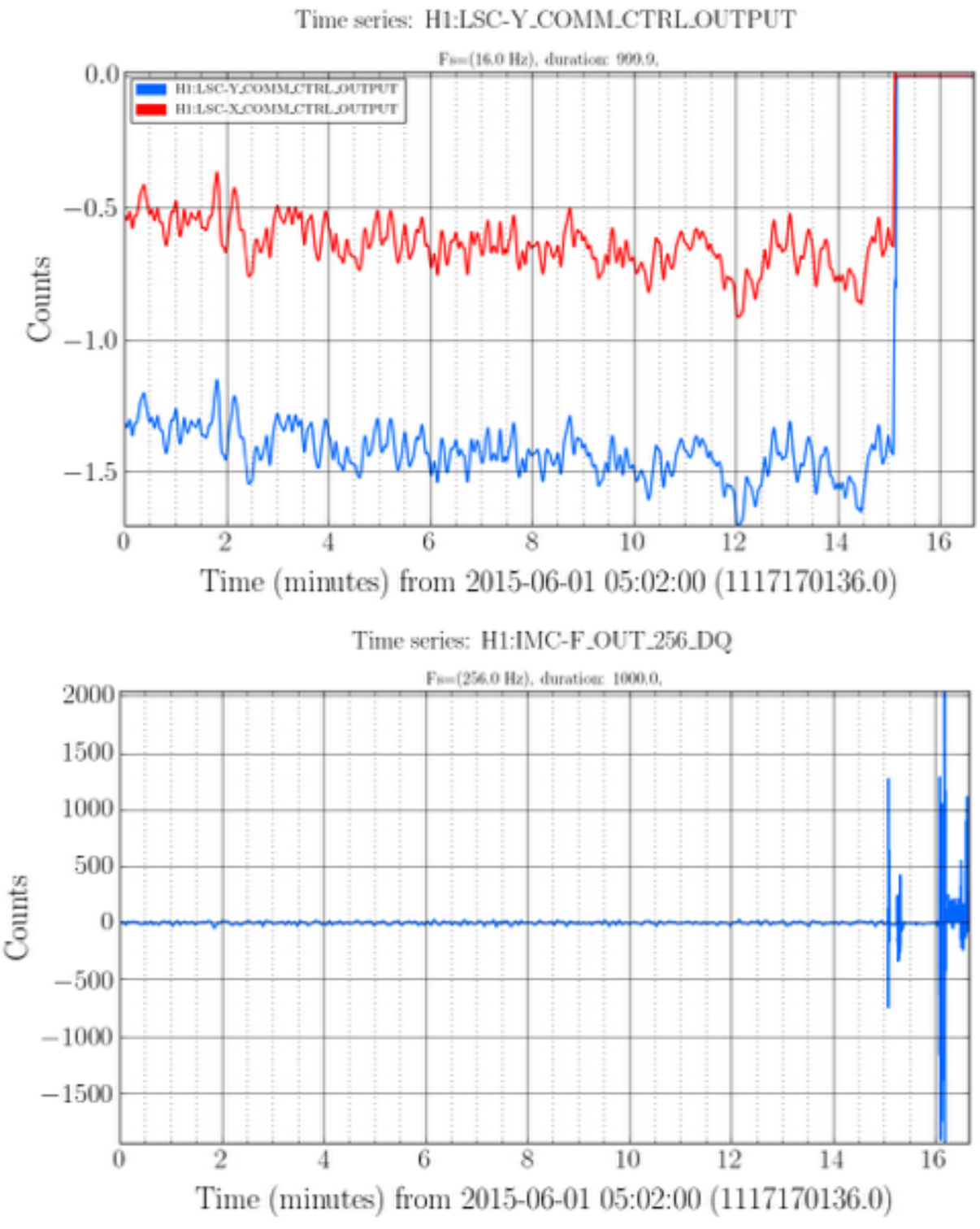
- LSC-Y_COMM_CTRL_OUTPUT and LSC-X_COMM_CTRL_OUTPUT at the end of the first short observation intent time are saturating at 10 um for this whole lock.

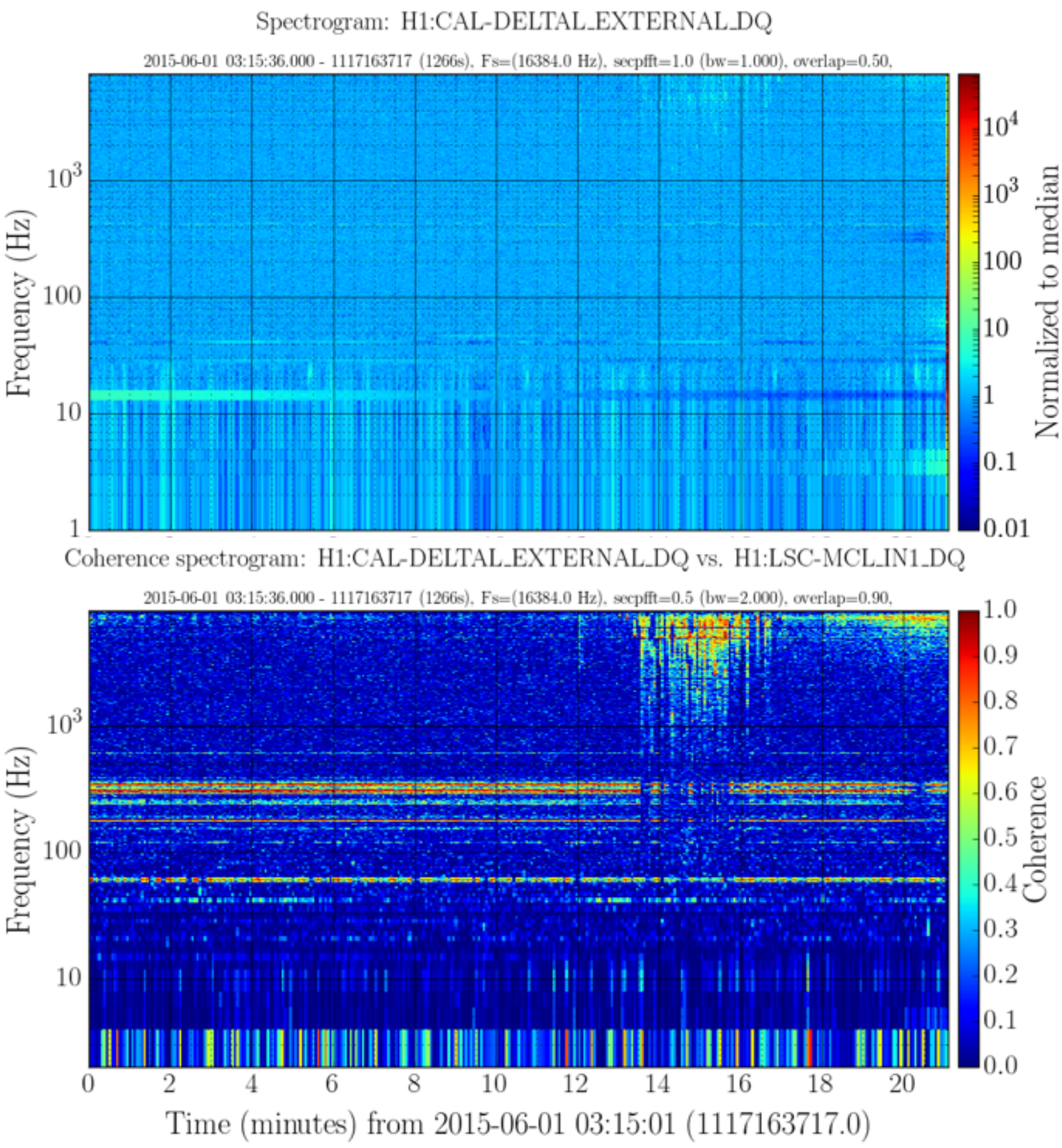


[1st lock]



[2nd lock]





- some additional noise during the first lock
- DARM coherence with MCL, PRCL, and SRCL also increases.

H1 gravitational-wave strain $[h(t)]$

Loudest event: Time= 1117218068.016235113, Peak Frequency= 1.76×10^3, SNR= 3.47×10^3

Frequency [Hz]

10^3

100

10

Signal to noise ratio (SNR)

100

50

10

5

H1 $h(t)$ glitch rate (Omicron, 300 s bins)

Rate [Hz]

10

1

0.1

0.01

10^{-3}

SNR >= 6

SNR >= 8

SNR >= 10

SNR >= 20

Locked

0 2 4 6 8 10 12 14 16 18 20 22 24

Time [hours] from 2015-06-01 00:00:00 (1117152016.0)