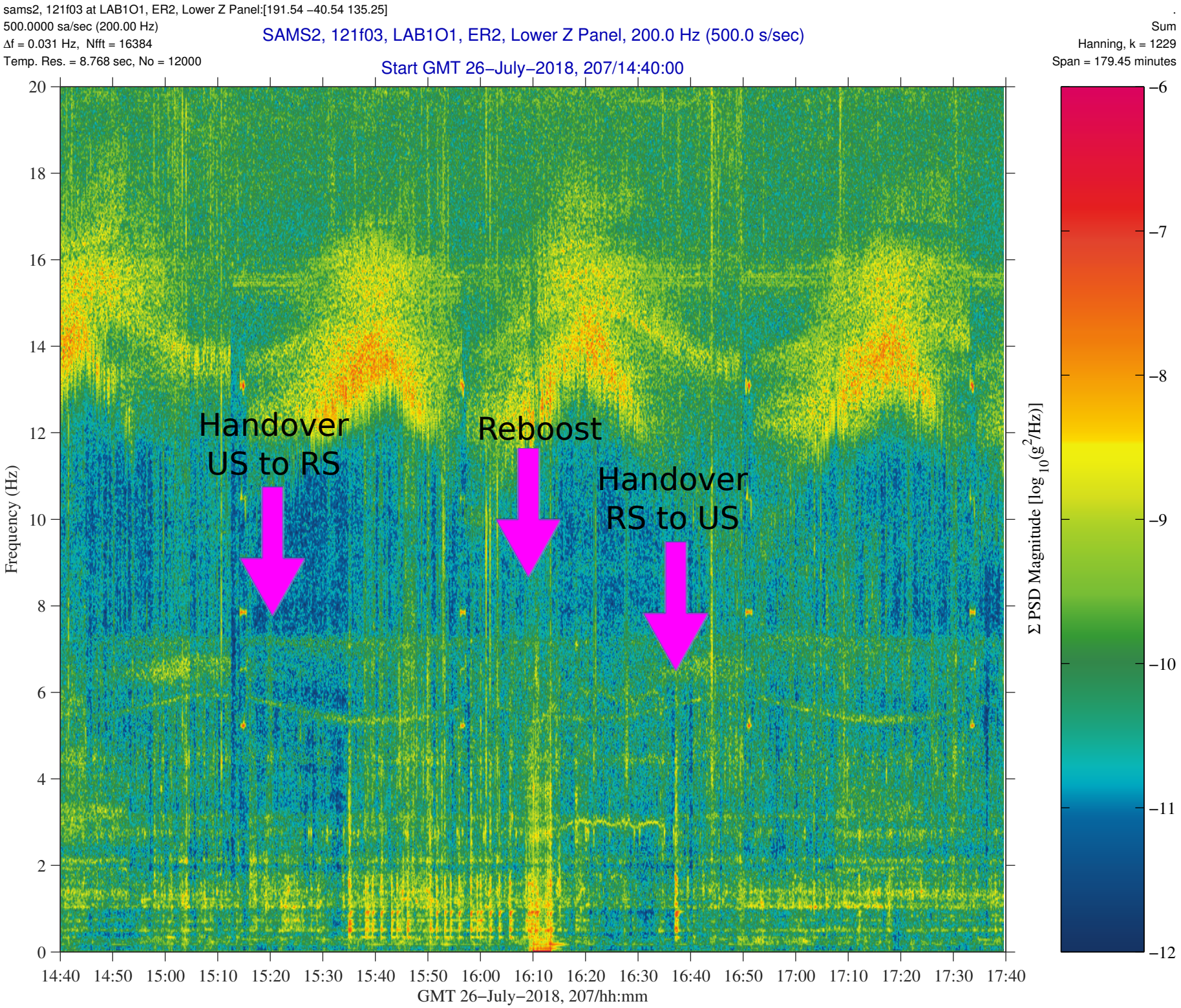
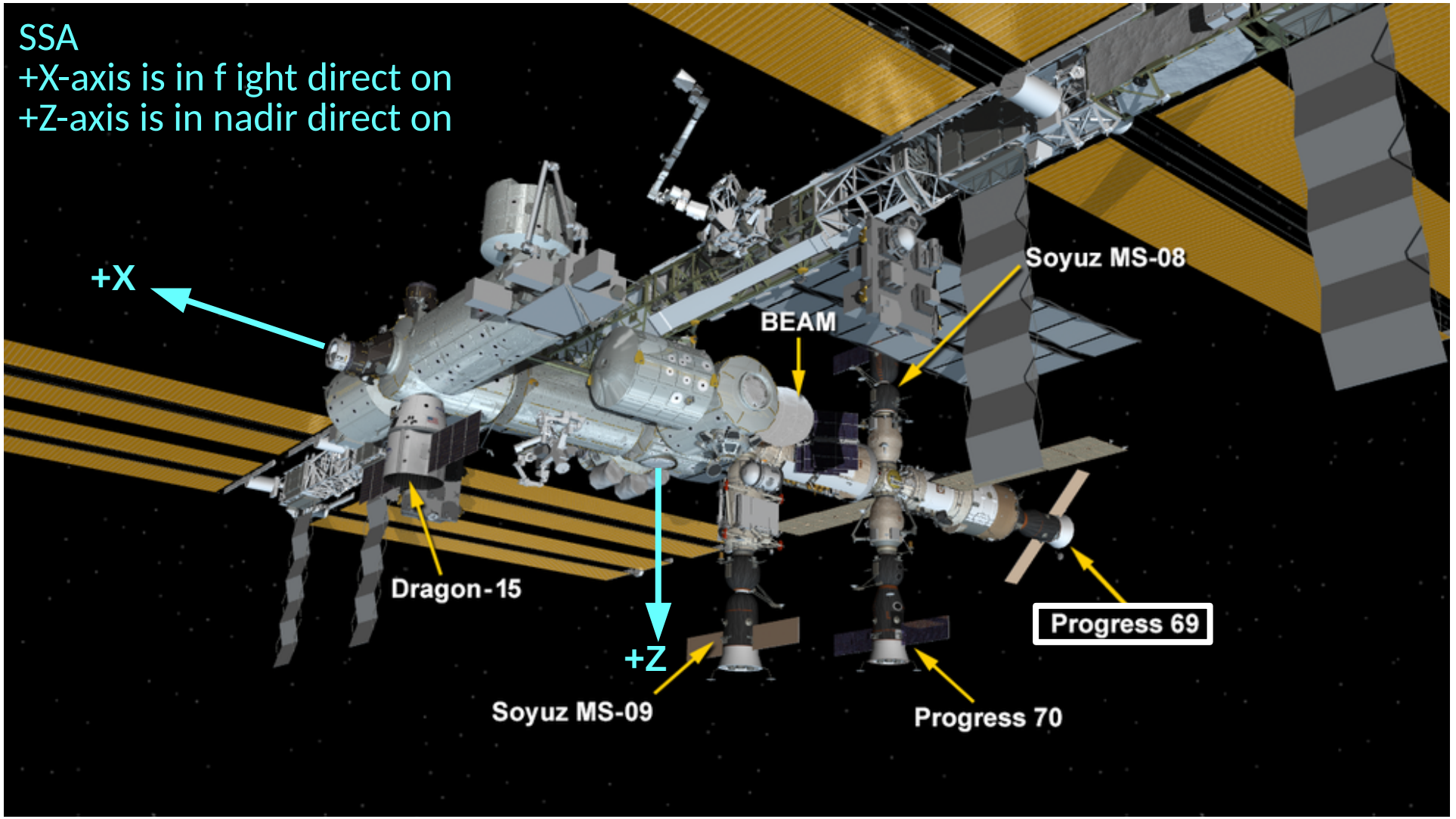
Progress 69P Reboost
GMT 2018/207
Thursday, July 26, 2018

At GMT 16:10, the ISS completed a ~3m 19s reboost using the Progress 69P thrusters. The objective was to start phasing for the Soyuz 54S landing and the Soyuz 55S launch in October 2018. The ISS velocity increased by 0.40 meters per second.

This was to be the first in a series of 3 reboosts to ultimately achieve proper phasing for those later flights.


sams2, 121f03 at LAB1O1, ER2, Lower Z Panel:[191.54 −40.54 135.25]
500.0000 sa/sec (200.00 Hz)
Δf = 0.031 Hz, Nfft = 16384
Temp. Res. = 8.768 sec, No = 12000
SAMS2, 121f03, LAB1O1, ER2, Lower Z Panel, 200.0 Hz (500.0 s/sec)
Start GMT 26−July−2018, 207/14:40:00
Sum
Hanning, k = 1229
Span = 179.45 minutes
Handover
US to RS
Reboost
Handover
RS to US
Frequency (Hz)
GMT 26−July−2018, 207/hh:mm
Σ PSD Magnitude [log 10(g2/Hz)]

Progress 69P Alignment in Space Station Analysis (SSA) Coordinates

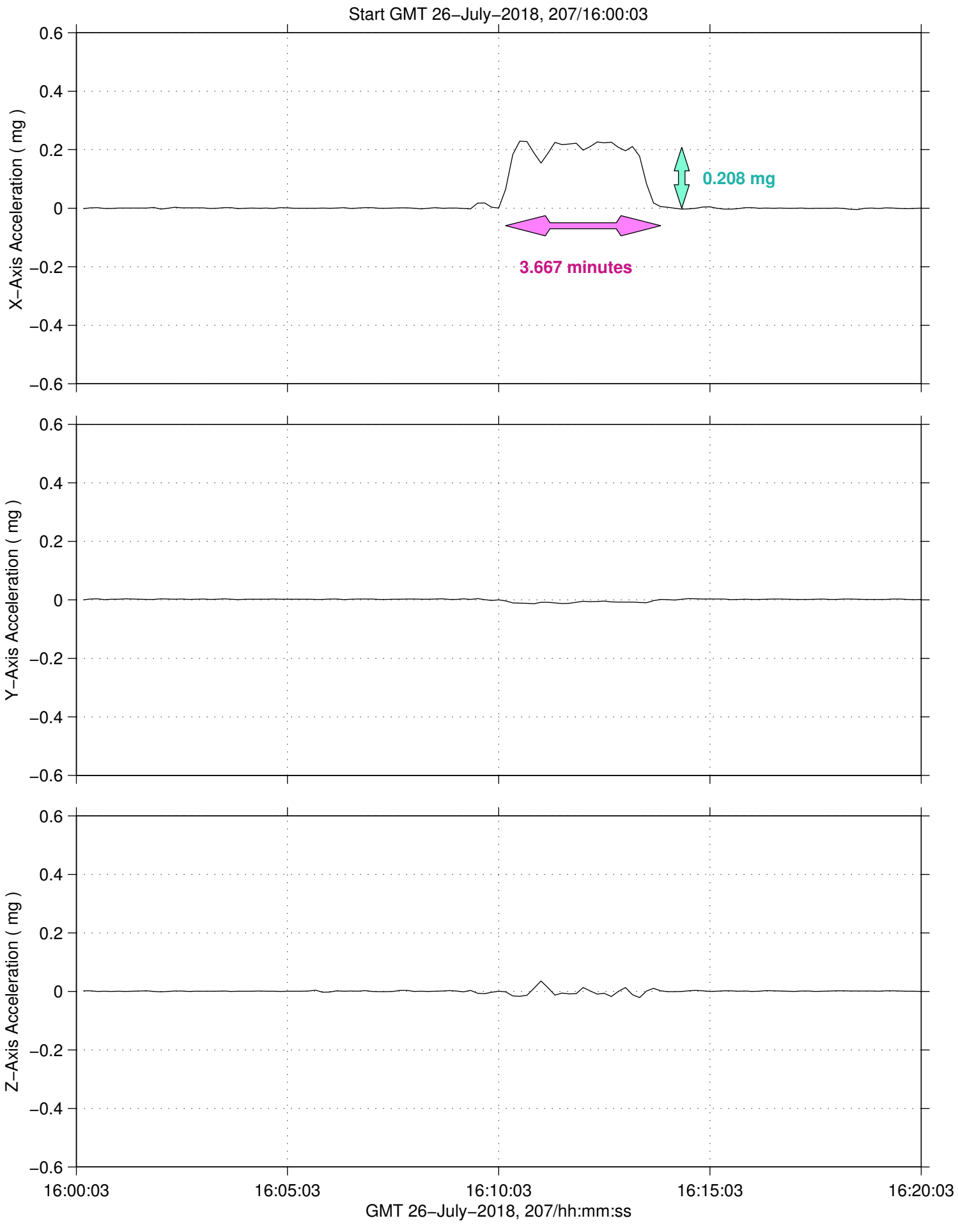


inverted–sams2, 121f02 at JPM1A6, RMS Console, Seat Track:[377.92 –354.84 203.04]

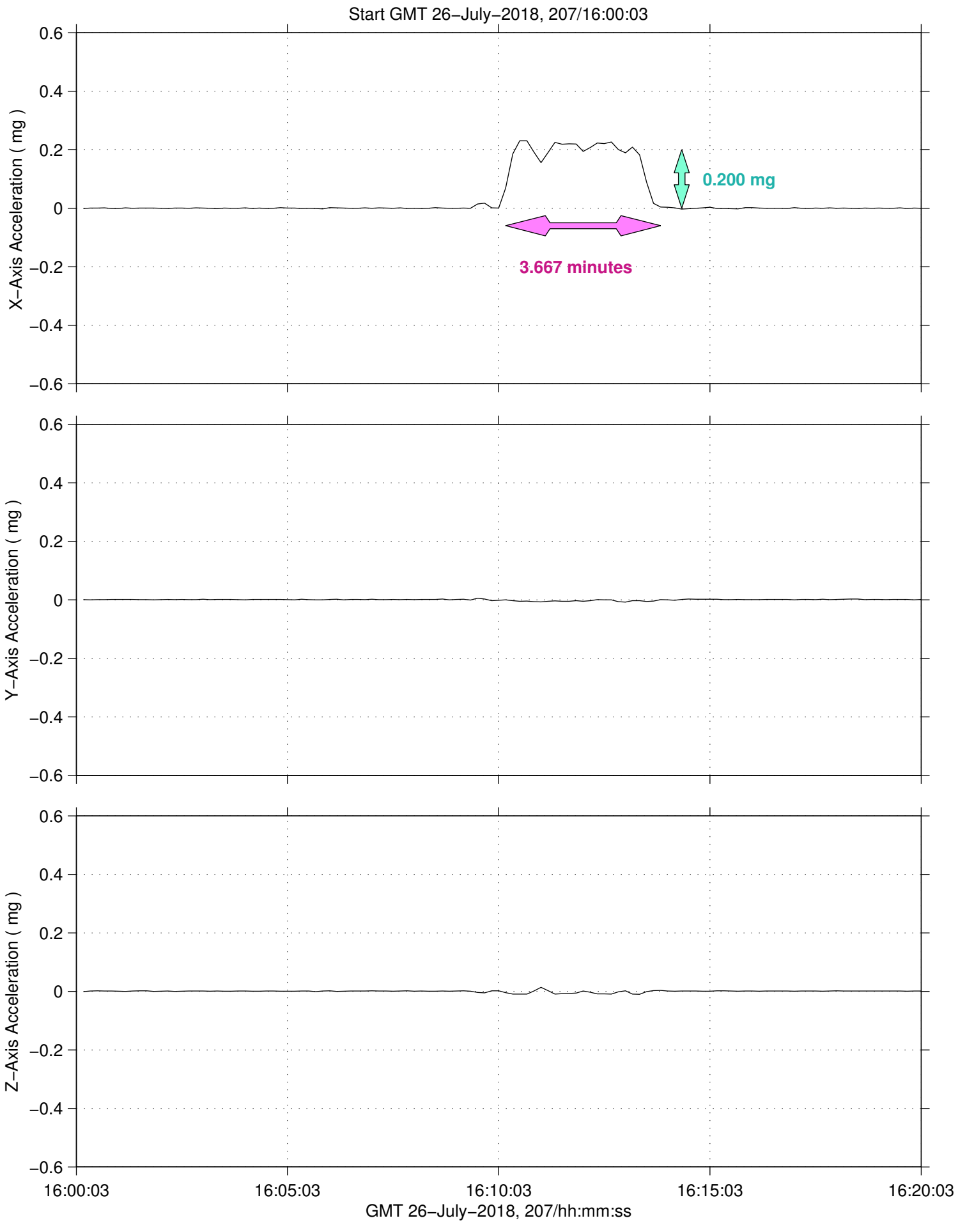
0.1000 sa/sec (200.00 Hz)

SAMS2, 121f02, JPM1A6, RMS Console, Seat Track, 200.0 Hz (500.0 s/sec)

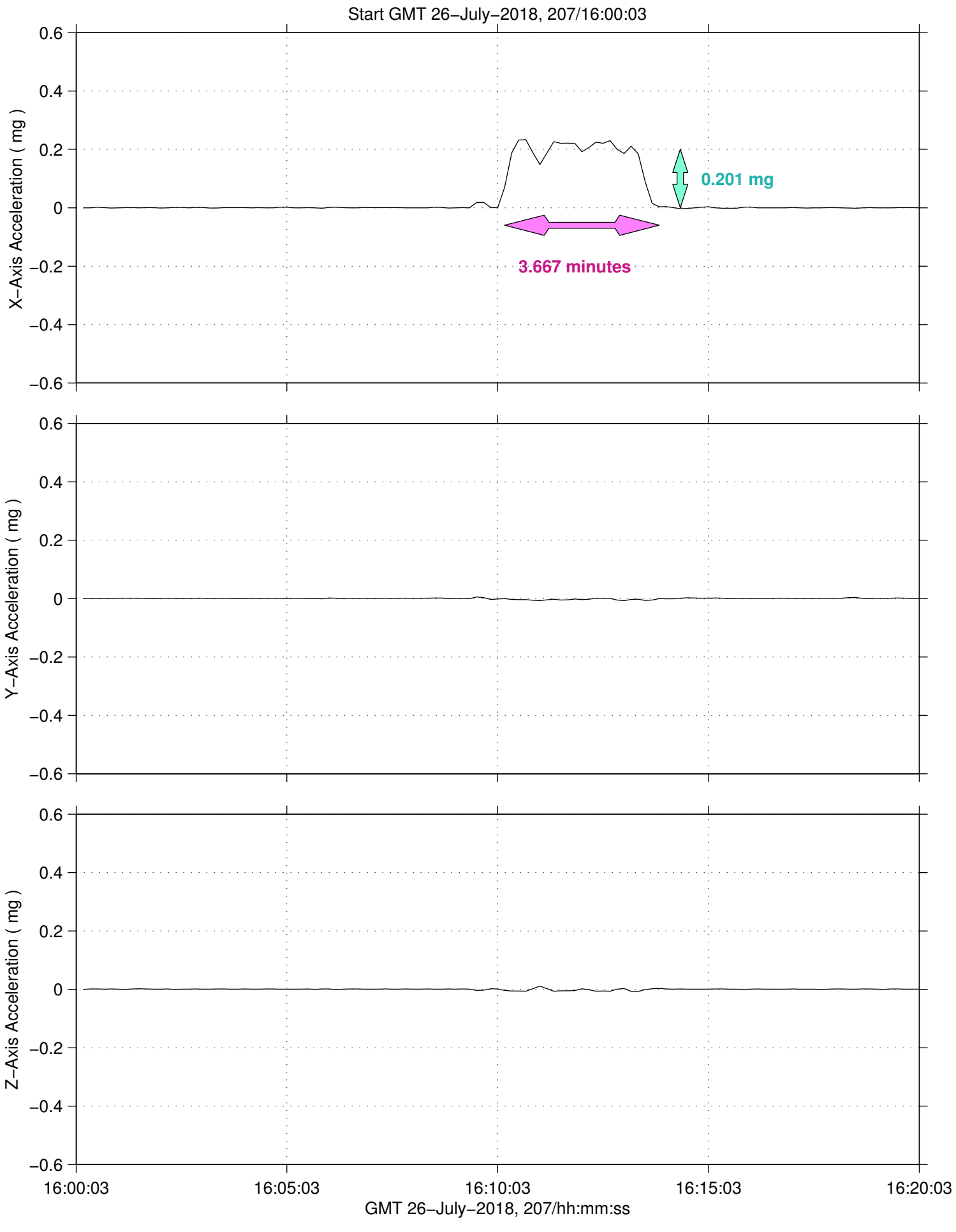
SSAnalysis[0.0 0.0 0.0]
Interval Average
Size: 20.00, Step: 10.00 sec.



SAMS2, 121f03, LAB1O1, ER2, Lower Z Panel, 200.0 Hz (500.0 s/sec)



SAMS2, 121f04, LAB1P2, ER7, Cold Atom Lab Front Panel, 200.0 Hz (500.0 s/sec)

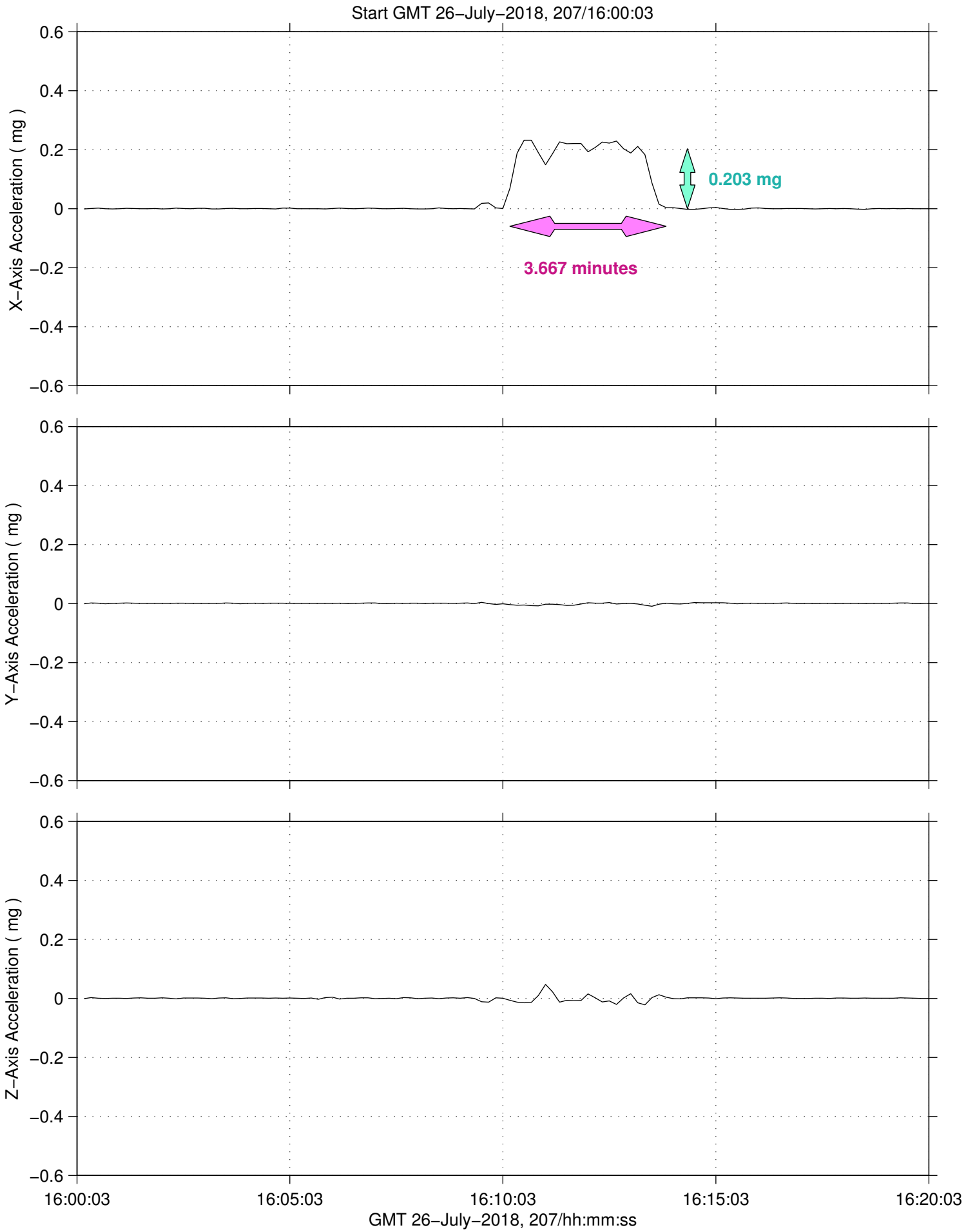


inverted−sams2, 121f05 at JPM1F1, ER5, Inside RTS/D2:[466.80 −124.06 214.58]

0.1000 sa/sec (200.00 Hz)

SAMS2, 121f05, JPM1F1, ER5, Inside RTS/D2, 200.0 Hz (500.0 s/sec)

SSAnalysis[0.0 0.0 0.0]
Interval Average
Size: 20.00, Step: 10.00 sec.

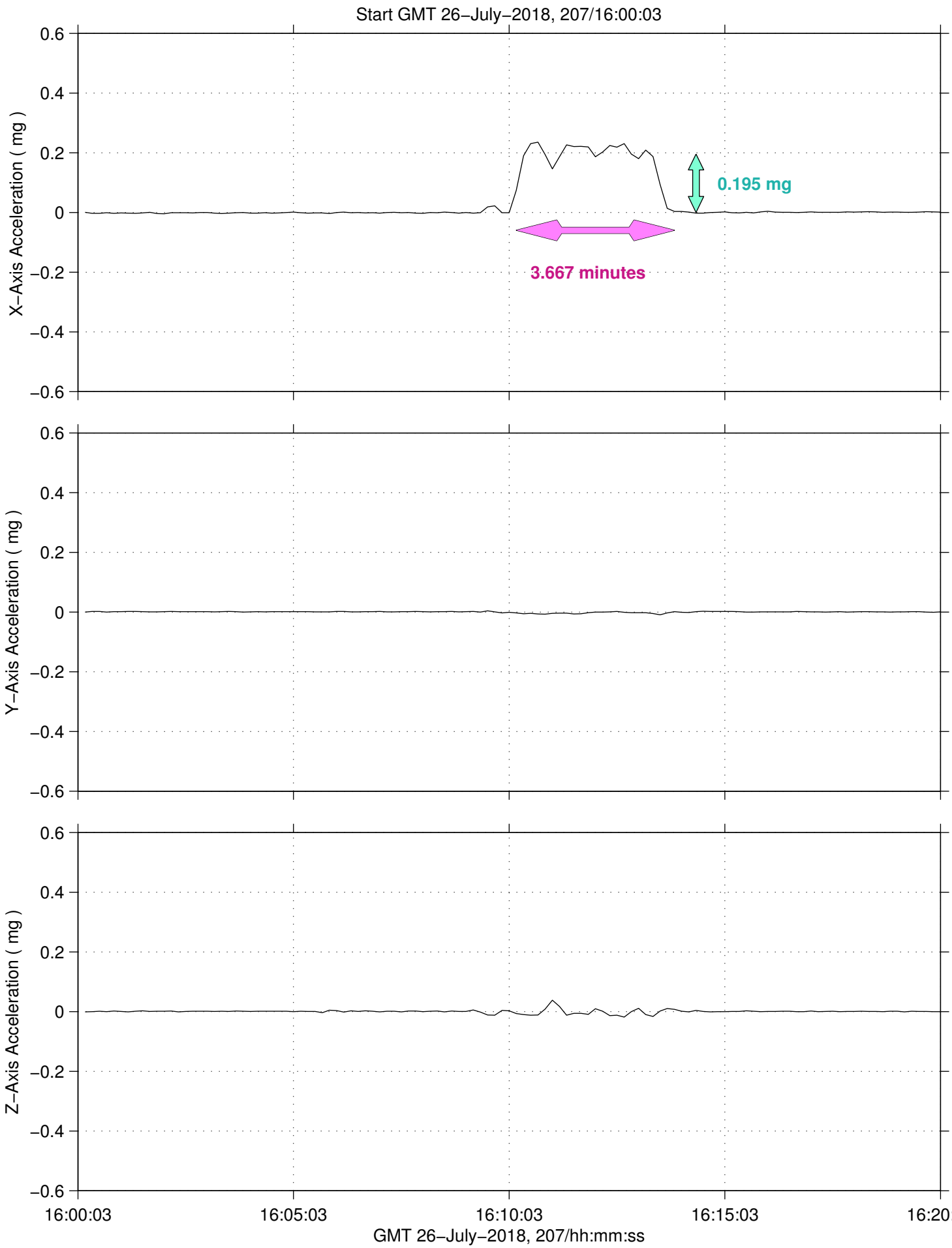


inverted–sams2, 121f08 at COL1A3, EPM, near PK–4:[371.17 287.43 165.75]

0.1000 sa/sec (200.00 Hz)

SAMS2, 121f08, COL1A3, EPM, near PK–4, 200.0 Hz (500.0 s/sec)

SSAnalysis[0.0 0.0 0.0]
Interval Average
Size: 20.00, Step: 10.00 sec.



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Calculations based on measurements made by the SAMS sensor (121f03) mounted on EXPRESS Rack 2 in the US LAB indicate a **delta V of 0.40 meters/second** for the ISS.

Representative acceleration values during the reboost step from each SAMS sensor's X-axis were as follows:

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121f02    0.208 mg  JPM1A6   (RMS Console)
121f03    0.200 mg  LAB1O1   (ER2)
121f04    0.201 mg  LAB1P2   (ER7)
121f05    0.203 mg  JPM1F1   (ER5)
121f08    0.195 mg  COL1A3   (EPM)
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