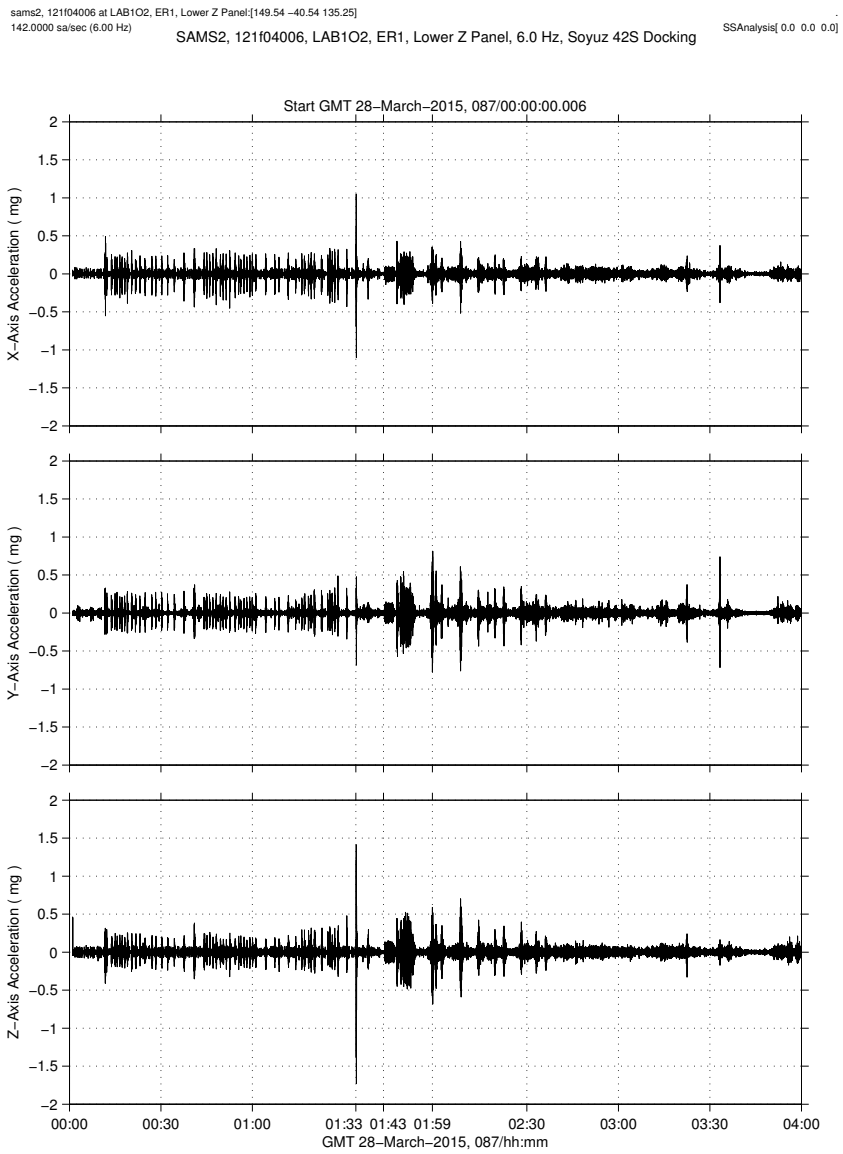
Compare Docking to Berthing Quantify



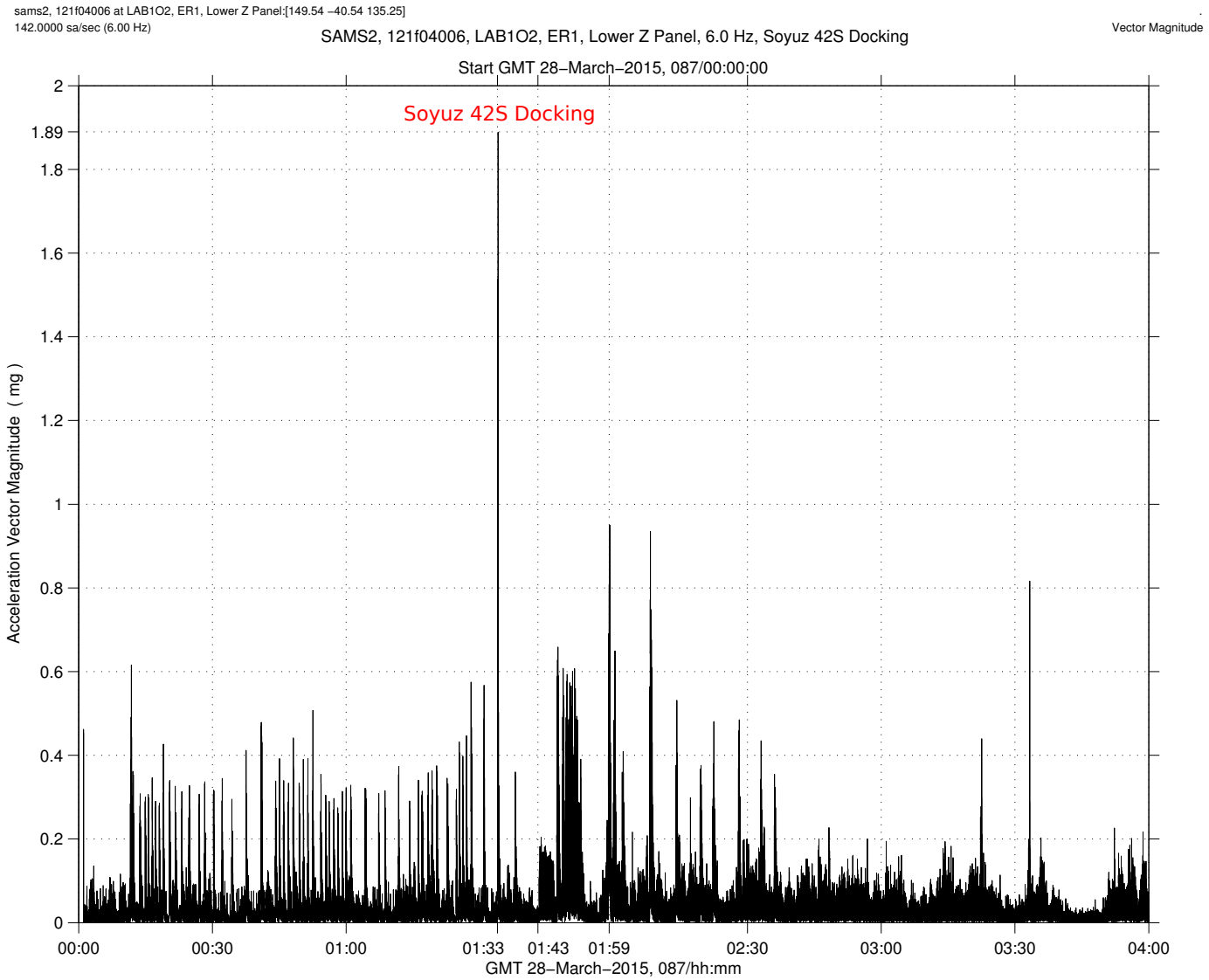
Description	
Sensor	SAMS 121f04006 142.00 sa/sec, **6.00 Hz**
Location	LAB1O2, ER1, Lower Z Panel
Plot Type	Acceleration vs. Time

Notes:

- This plot of per-axis acceleration versus time shows a low-pass filtered (6 Hz) rendition of measurements made by the SAMS sensor in ER1 (S/N 121f04).
- These data correspond to a 4-hour window of time around the **Soyuz 42S docking**.
- These data suggest a docking time of GMT 01:33:56, while the As-flown Time Line (ATL) suggests docking at 01:36:06.
- In the US Lab, the impulse of these 2 vehicles colliding was aligned primarily with the XZ-plane for the Soyuz vehicle docking to MRM-2.
- The notable envelope apparent on all 3 axes between GMT 01:43 and 01:59 was the result of a maneuver to post-docking attitude.

Regime:	Vibratory
Category:	Vehicle
Source:	Compare Docking to Berthing

Compare Docking to Berthing Quantify



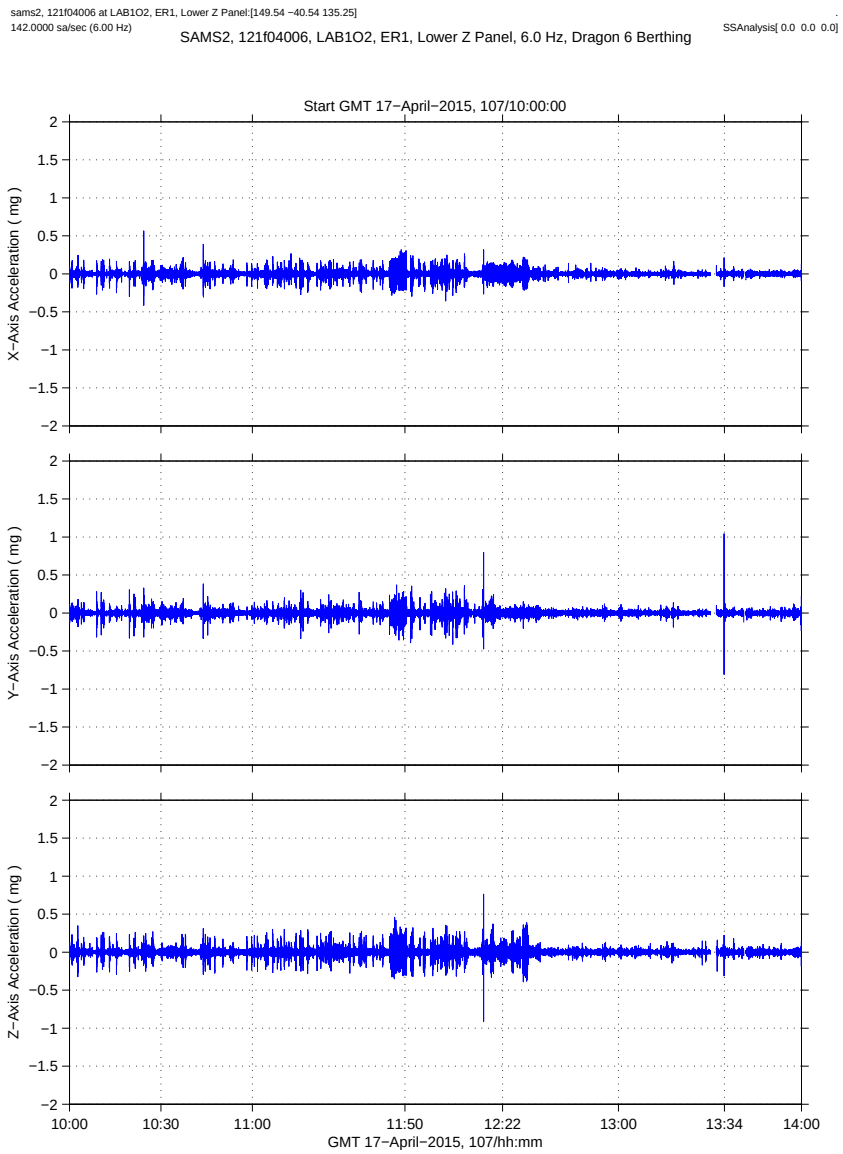
Description	
Sensor	SAMS 121f04006 142.00 sa/sec, **6.00 Hz**
Location	LAB1O2, ER1, Lower Z Panel
Plot Type	Acceleration vs. Time

Notes:

- This plot is just the vector magnitude combining the per-axis values shown on the previous page.
- Here you see that the **Soyuz 42S docking** event gave rise to an **acceleration vector magnitude** measured near ER1 in the US Lab of about **1.89 mg** after low-pass filtering at 6 Hz.

Regime:	Vibratory
Category:	Vehicle
Source:	Compare Docking to Berthing

Compare Docking to Berthing Quantify



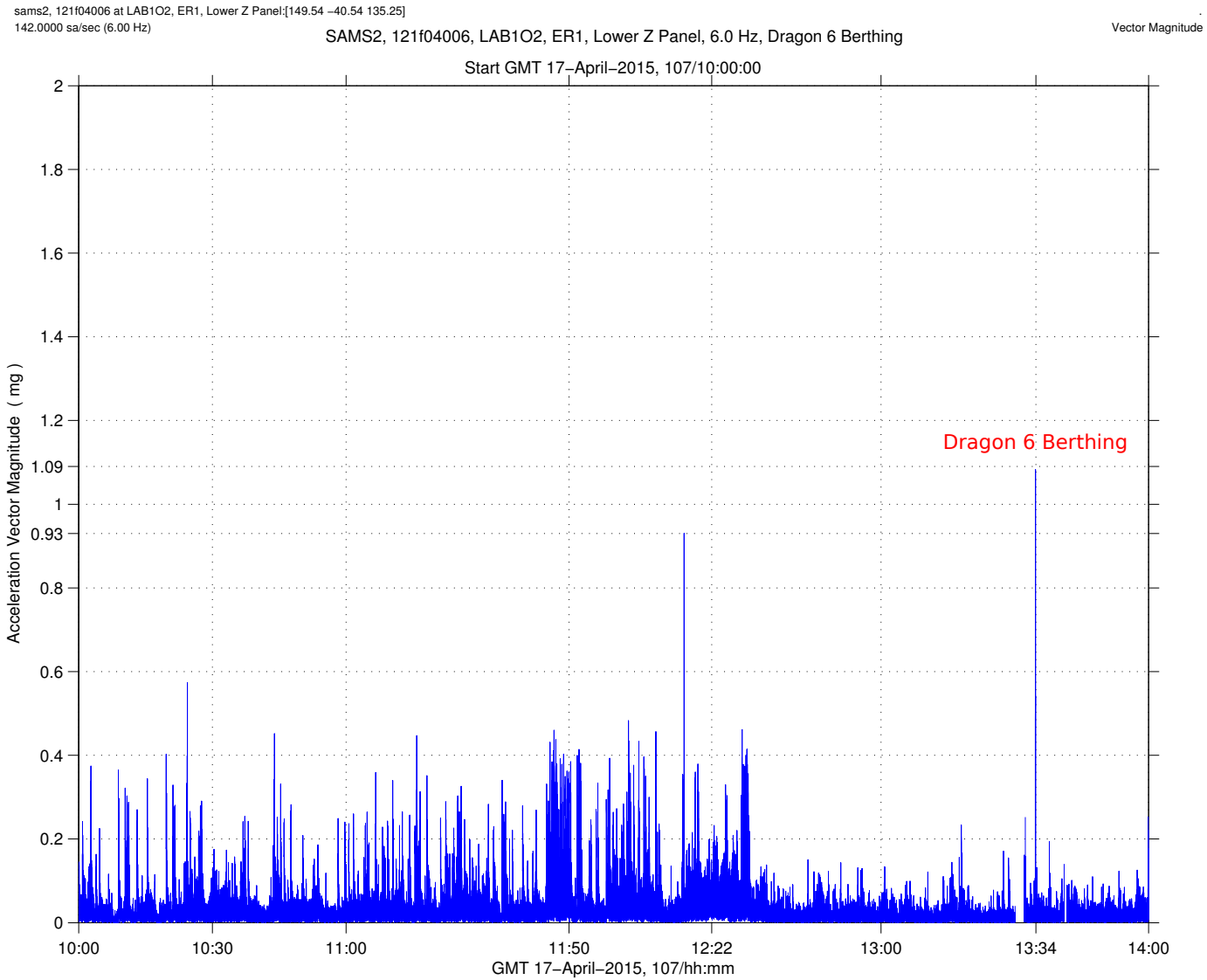
Description	
Sensor	SAMS 121f04006 142.00 sa/sec, **6.00 Hz**
Location	LAB1O2, ER1, Lower Z Panel
Plot Type	Acceleration vs. Time

Notes:

- This plot of per-axis acceleration versus time shows a low-pass filtered (6 Hz) rendition of measurements made by the SAMS sensor in ER1 (S/N 121f04).
- These data correspond to a 4-hour window of time around the **Dragon 6 berthing**.
- These data suggest a berthing time of GMT 13:34, which is consistent with the As-flown Time Line (ATL), which shows thrusters disabled for berthing event between 12:22 and 13:38.
- In the US Lab, the impulse of berthing was aligned primarily with the Y-axis for Dragon.
- The notable envelope apparent on all 3 axes between GMT 11:45 and 11:50 was the result of a maneuver to Torque Equilibrium Attitude (TEA).

Regime:	Vibratory
Category:	Vehicle
Source:	Compare Docking to Berthing

Compare Docking to Berthing Quantify



Description	
Sensor	SAMS 121f04006 142.00 sa/sec, **6.00 Hz**
Location	LAB1O2, ER1, Lower Z Panel
Plot Type	Acceleration vs. Time

Notes:

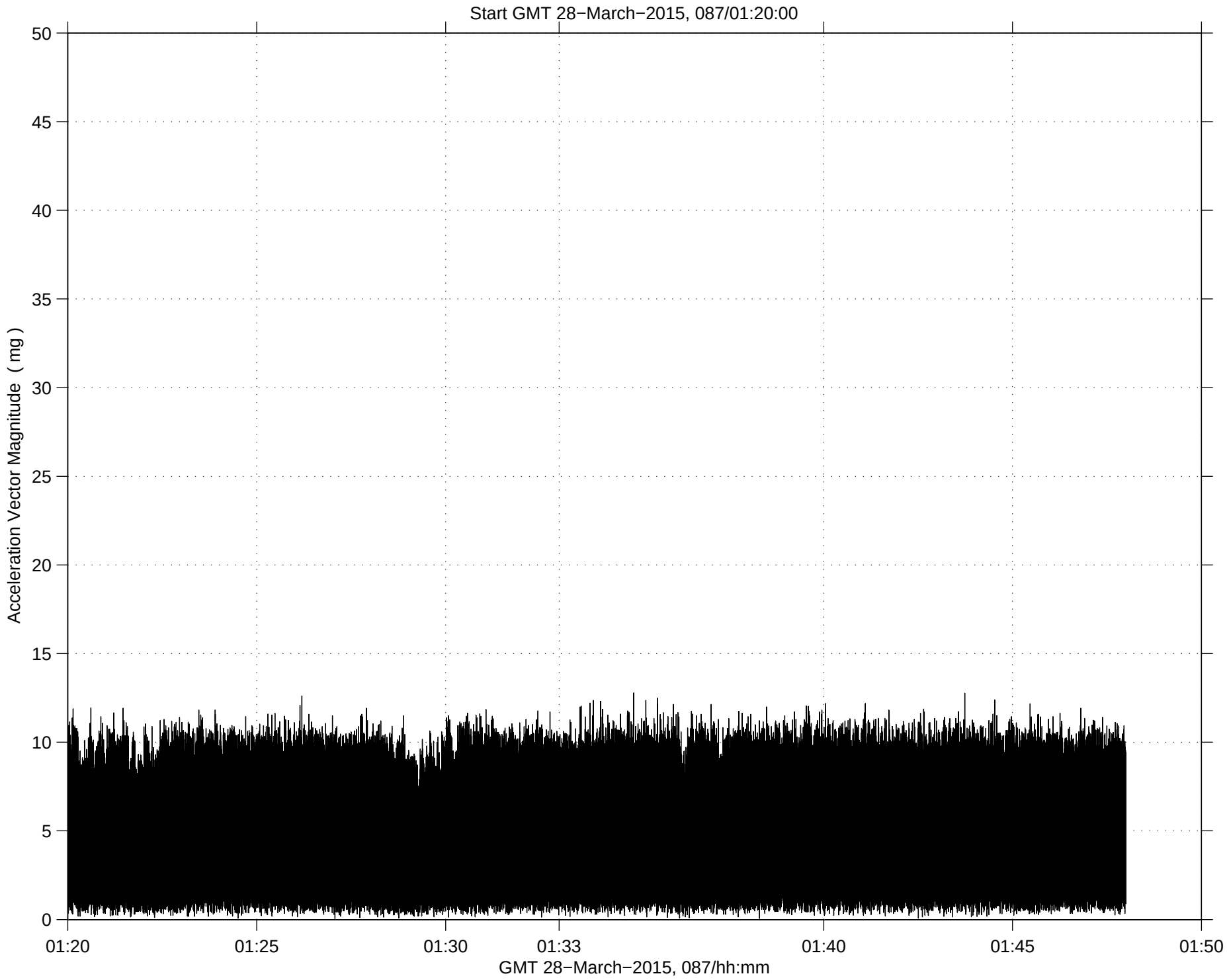
- This plot is just the vector magnitude combining the per-axis values shown on the previous page.
- Here you see that the **Dragon 6 berthing** event gave rise to an **acceleration vector magnitude** measured near ER1 in the US Lab of about **1.09 mg** after low-pass filtering at 6 Hz.

Regime:	Vibratory
Category:	Vehicle
Source:	Compare Docking to Berthing

sams2, 121f04 at LAB1O2, ER1, Lower Z Panel:[149.54 −40.54 135.25]
500.0000 sa/sec (200.00 Hz)

.
Vector Magnitude

SAMS2, 121f04, LAB1O2, ER1, Lower Z Panel, 200.0 Hz (500.0 s/sec)

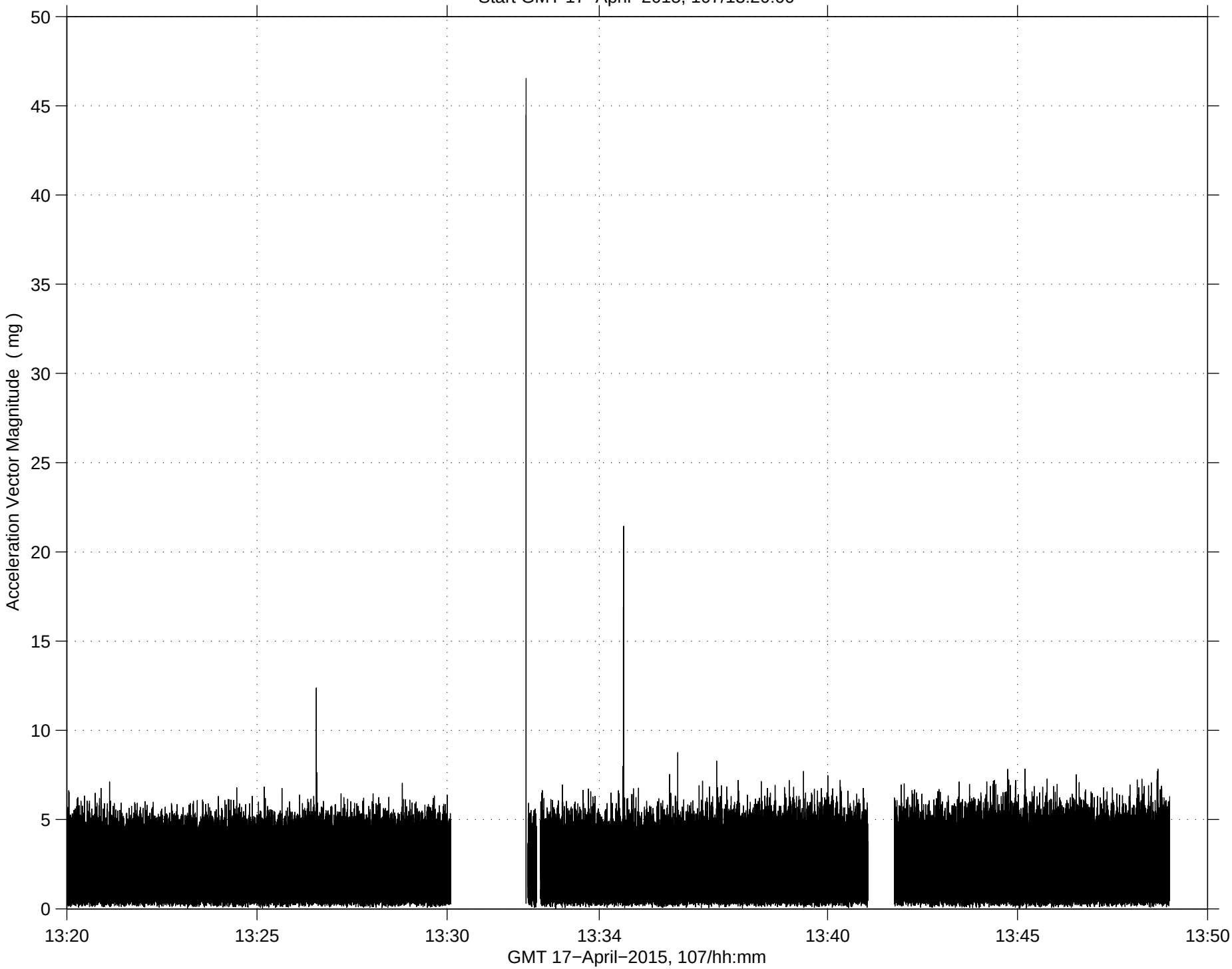


sams2, 121f04 at LAB1O2, ER1, Lower Z Panel:[149.54 −40.54 135.25]
500.0000 sa/sec (200.00 Hz)

.
Vector Magnitude

SAMS2, 121f04, LAB1O2, ER1, Lower Z Panel, 200.0 Hz (500.0 s/sec)

Start GMT 17−April−2015, 107/13:20:00

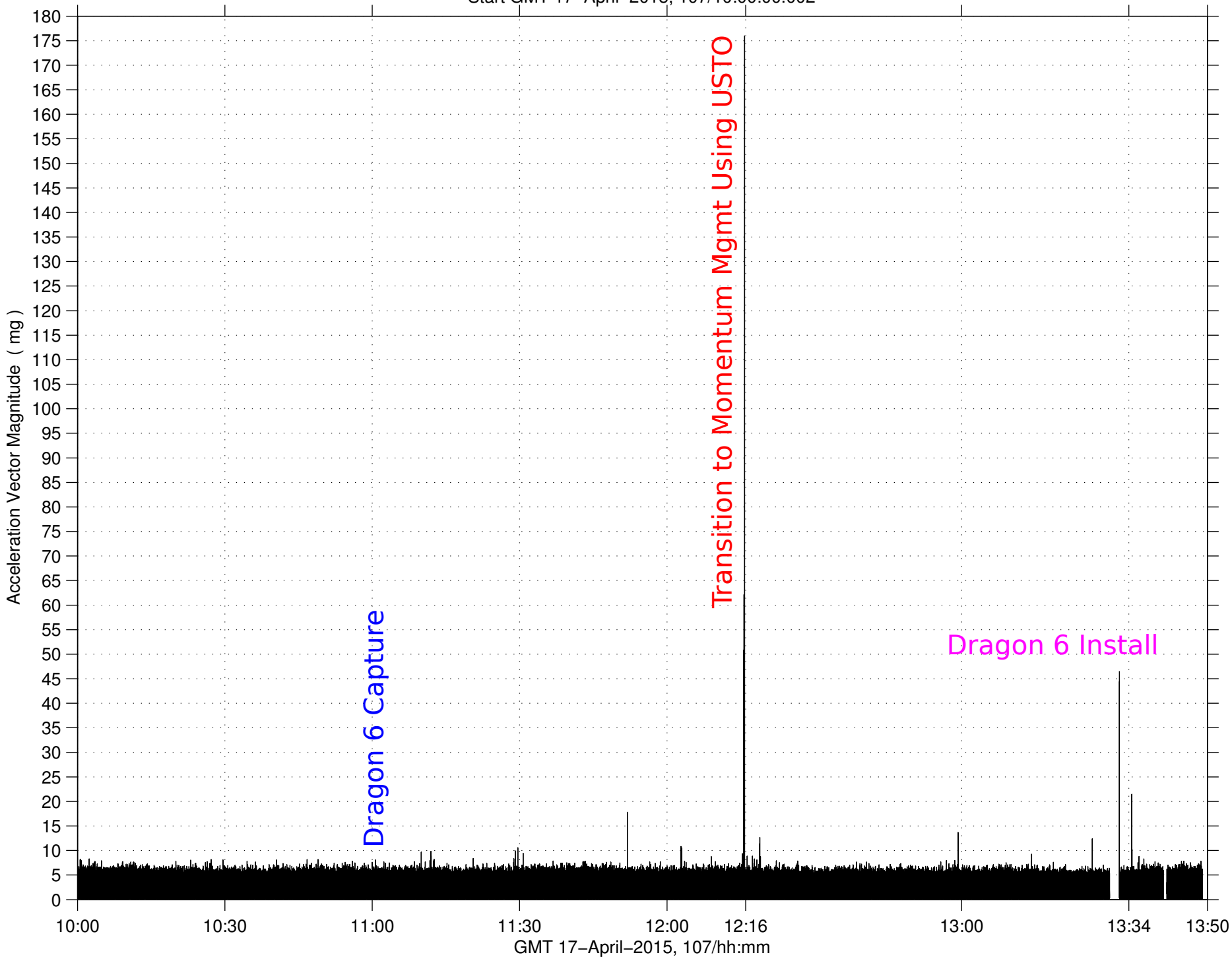


sams2, 121f04 at LAB1O2, ER1, Lower Z Panel:[149.54 −40.54 135.25]
500.0000 sa/sec (200.00 Hz)

Vector Magnitude

SAMS2, 121f04, LAB1O2, ER1, Lower Z Panel, 200.0 Hz (500.0 s/sec)

Start GMT 17−April−2015, 107/10:00:00.002

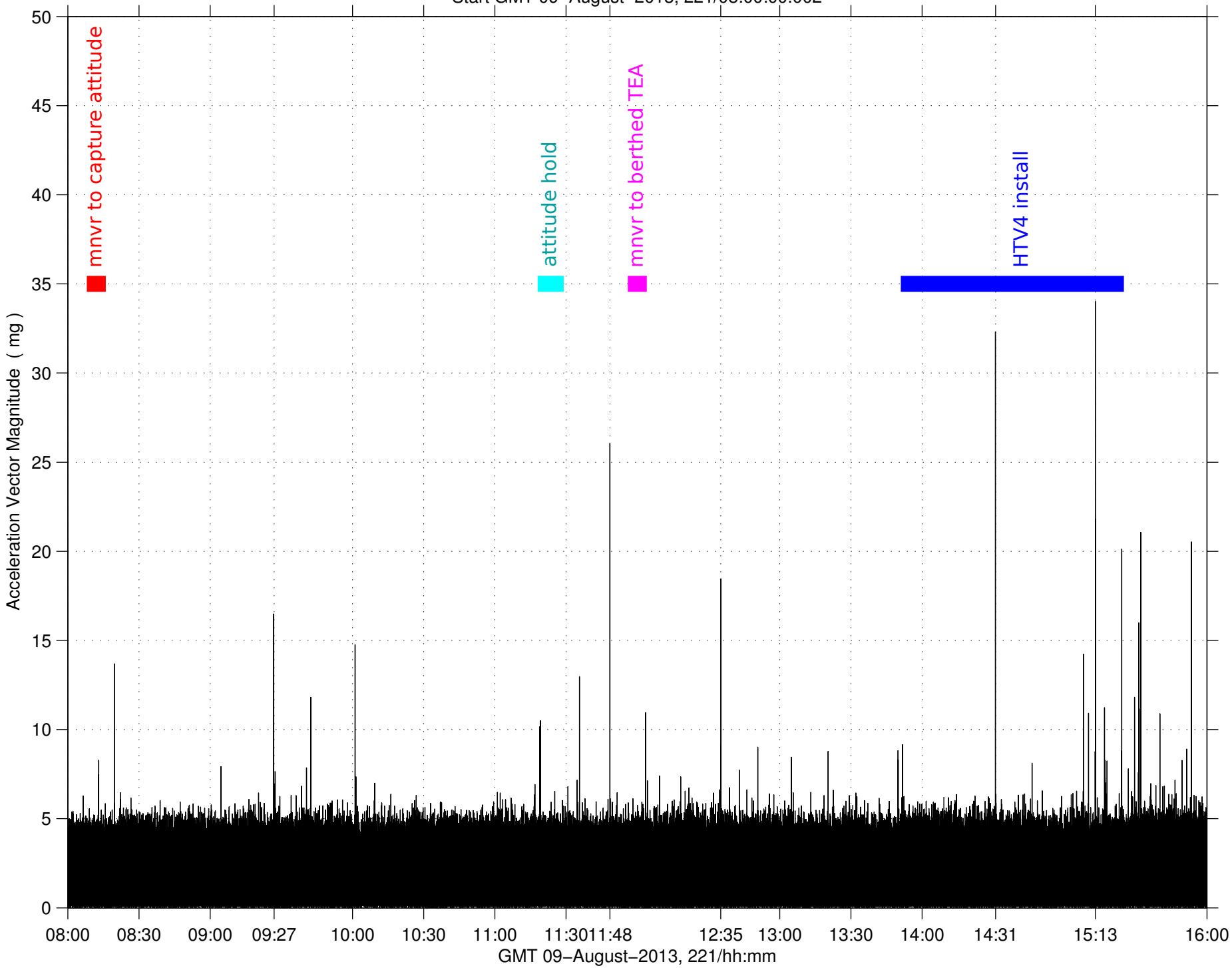


sams2, 121f04 at LAB1O2, ER1, Lower Z Panel:[149.54 −40.54 135.25]
500.0000 sa/sec (200.00 Hz)

Vector Magnitude

SAMS2, 121f04, LAB1O2, ER1, Lower Z Panel, 200.0 Hz (500.0 s/sec)

Start GMT 09−August−2013, 221/08:00:00.002



sams2, 121f04 at LAB1O2, ER1, Lower Z Panel:[149.54 −40.54 135.25]
500.0000 sa/sec (200.00 Hz)

Vector Magnitude

SAMS2, 121f04, LAB1O2, ER1, Lower Z Panel, 200.0 Hz (500.0 s/sec)

Start GMT 27−May−2015, 147/08:30:00.001