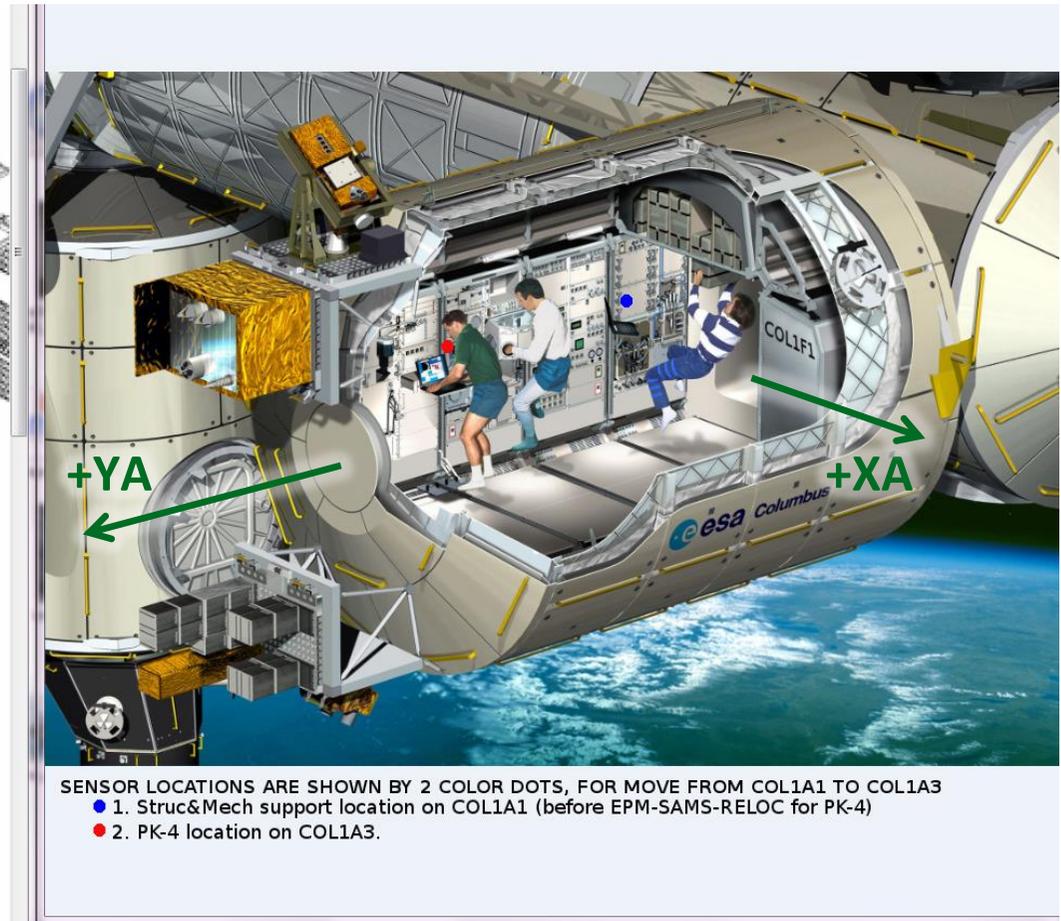
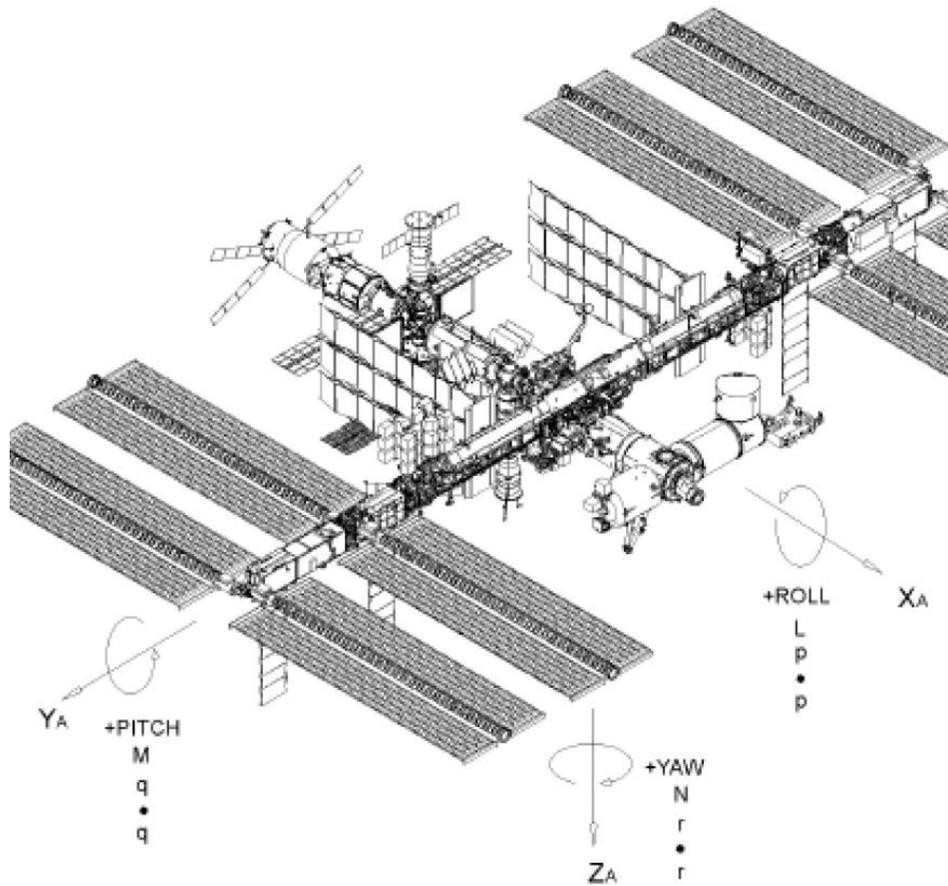


# SAMS Sensor Orientation on EPM for PK-4

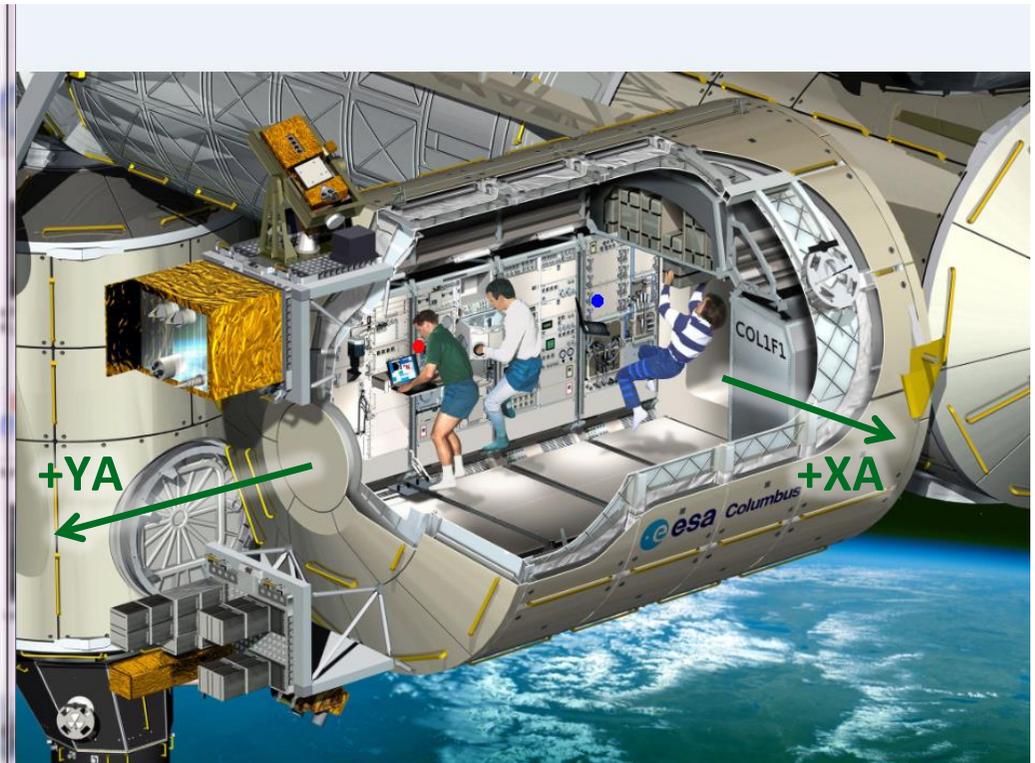
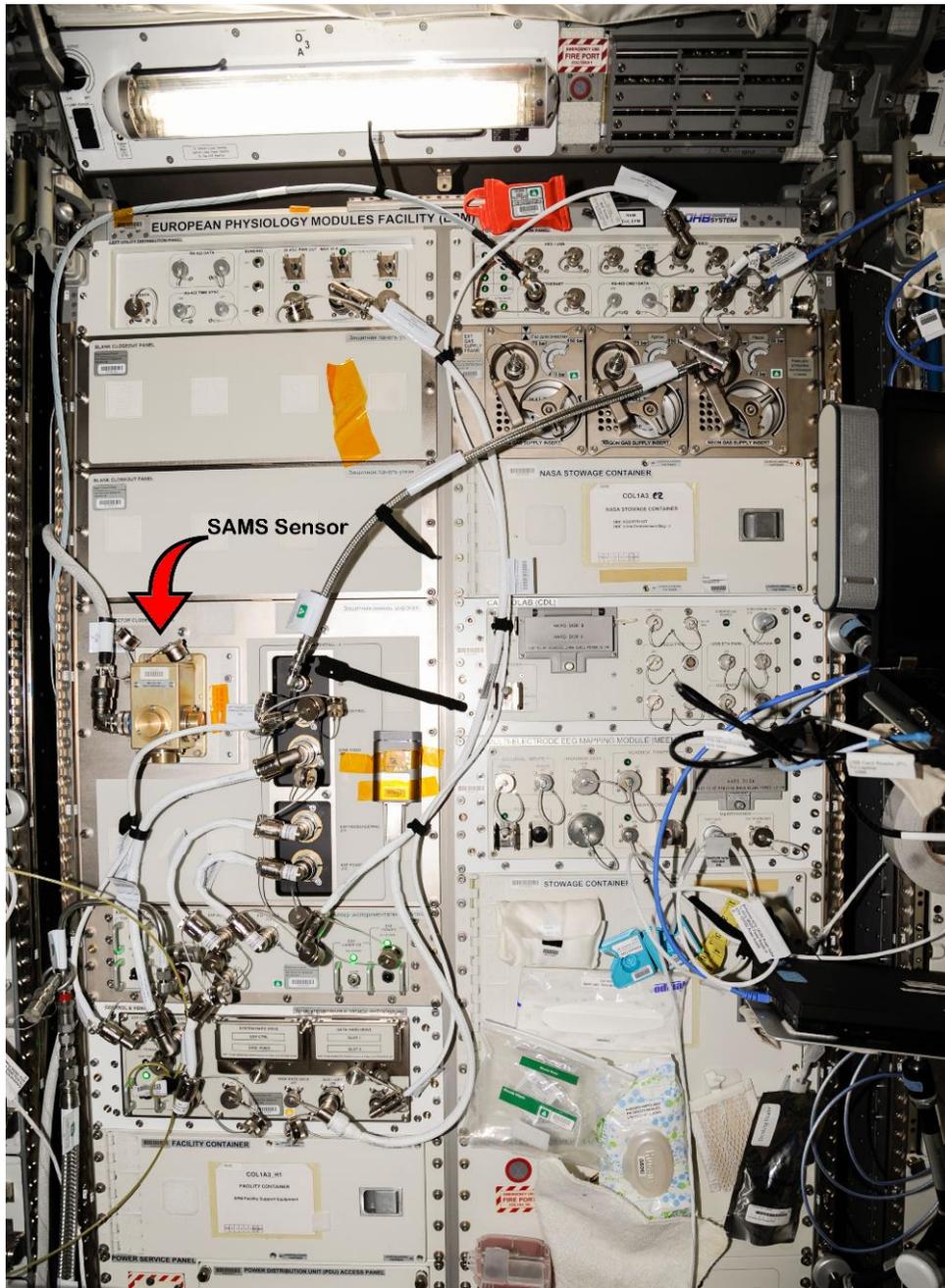
## REFERENCE IMAGES



- The crew with blue-and-white striped shirt is shown with knees in front of EXPRESS Rack 3 (COL1A1).
- The dark green arrow showing +XA direction is the forward, flight, **reboost acceleration** direction.

# SAMS Sensor Orientation on EPM for PK-4

## REFERENCE IMAGES

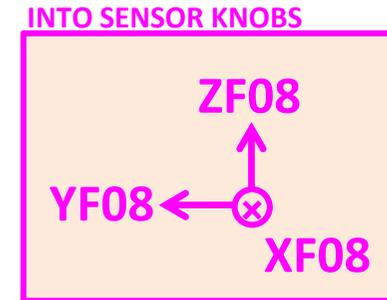
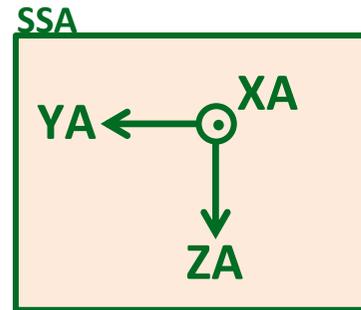
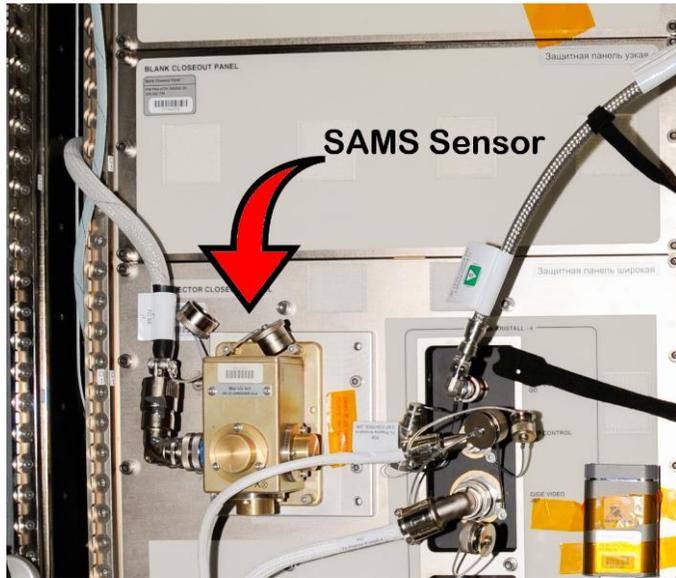


SENSOR LOCATIONS ARE SHOWN BY 2 COLOR DOTS, FOR MOVE FROM COL1A1 TO COL1A3  
● 1. Struc&Mech support location on COL1A1 (before EPM-SAMS-RELOC for PK-4)  
● 2. PK-4 location on COL1A3.

- The crew with the dark green shirt is shown in front of the EPM Rack (COL1A3).
- The photo at the left shows the sensor orientation as mounted on the front of EPM.
- The dark green arrow showing +XA direction is the forward, flight, **reboost acceleration** direction.

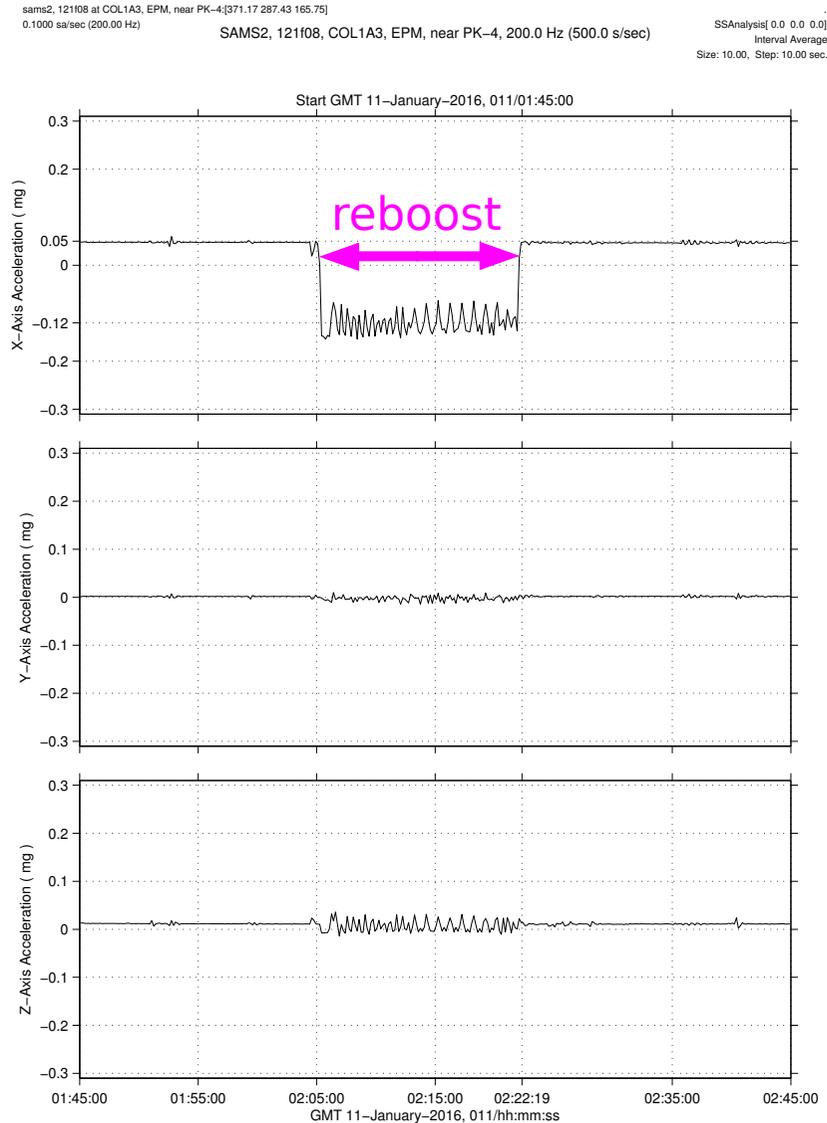
# SAMS Sensor Orientation on EPM for PK-4

## REFERENCE IMAGES



- The above shows relative orientation between sensor knobs and Space Station Analysis (SSA) coordinates.
- The photo at the left shows the sensor orientation as mounted on the front of EPM.
- Note that SAMS sensor polarity is inverted, however, as you will see on the next page.

## SAMS Orientation on EPM for PK-4 Quantify



Description	
Sensor	SAMS 121f08 500.0 sa/sec, 200.0 Hz
Location	COL1A3, EPM, near PK-4
Plot Type	Int. Avg. Accel. vs. Time

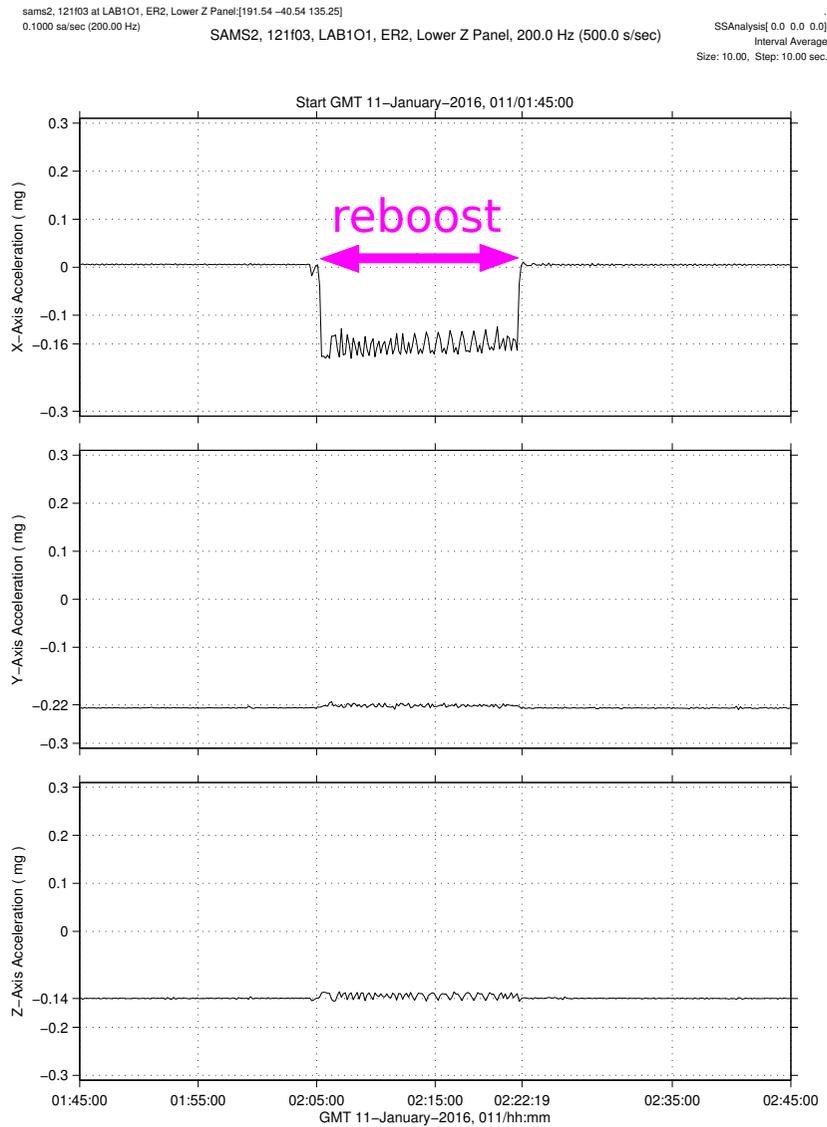
### Notes:

- This 3-panel plot of interval average acceleration versus time shows a rendition of SAMS data during a Progress 61P Reboost event.
- This shows a 10-second interval average every 10 seconds on data read from PAD files and have not been demeaned.
- A reboost is a propulsive event in the +XA-direction, the forward (flight) direction.
- These data show the inverted polarity of SAMS evident here on the X-axis. The step away from baseline between about 02:05 and 02:22 should be in the positive (not negative) direction.

Regime:	Vibratory
Category:	Equipment
Source:	SAMS Orientation on EPM for PK-4



## SAMS Orientation on EPM for PK-4 Quantify



Description	
Sensor	SAMS 121f03 500.0 sa/sec, 200.0 Hz
Location	LAB1O1, ER2, Lower Z Panel
Plot Type	Int. Avg. Accel. vs. Time

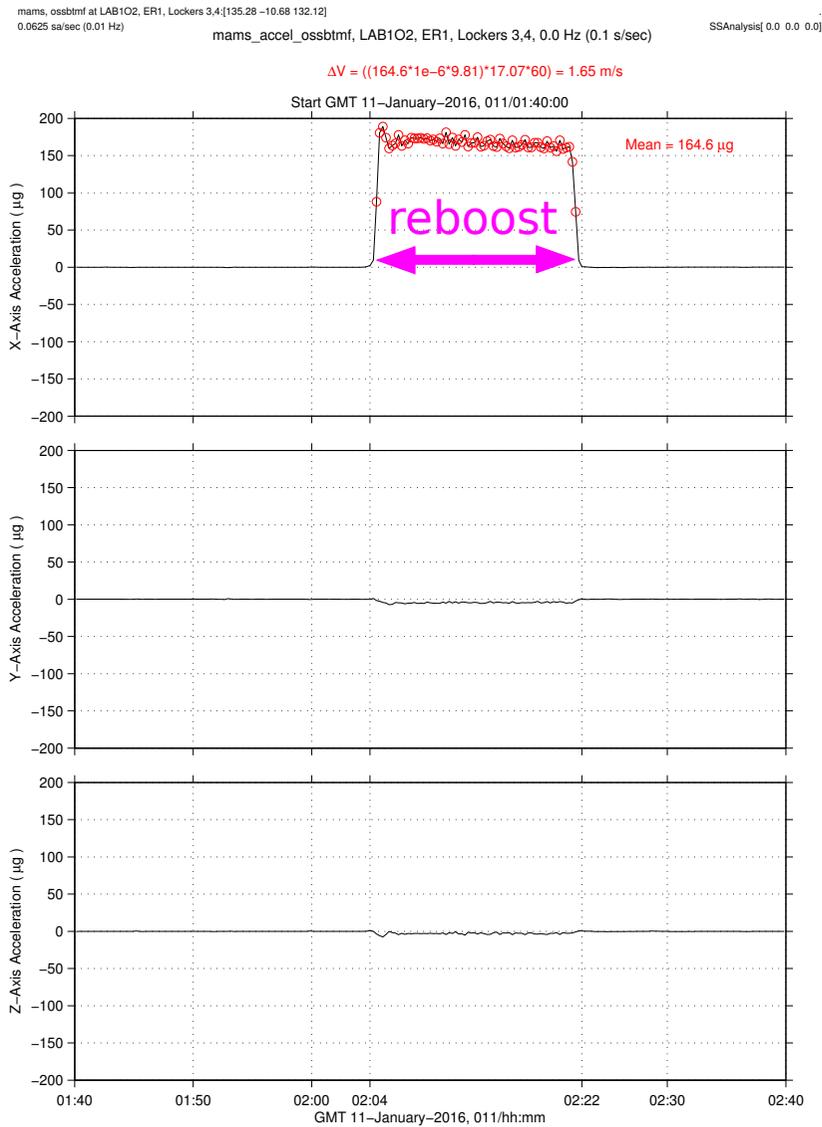
### Notes:

- This plot is identical to that of the previous page other than we here use SAMS data from a sensor mounted in the USL on ER2.
- Again, note the inverted polarity of SAMS on the X-axis, where these data have been transformed from sensor to Space Station Analysis (SSA) coordinates.

Regime:	Vibratory
Category:	Equipment
Source:	SAMS Orientation on EPM for PK-4



## SAMS Orientation on EPM for PK-4 Quantify



Description	
Sensor	MAMS ossbtfm 0.0625 sa/sec, 0.01 Hz
Location	LAB1O2, ER1, Lockers 3,4
Plot Type	XYZ Accel. vs. Time

### Notes:

- This shows MAMS OSS data as-measured in the USL during the Progress 61P Reboost.
- Note that these MAMS data do not have inverted polarity (like SAMS data).
- The reboost event now shows up (as it should) with a positive step on the X-axis during the reboost.

Regime:	Vibratory
Category:	Equipment
Source:	SAMS Orientation on EPM for PK-4

