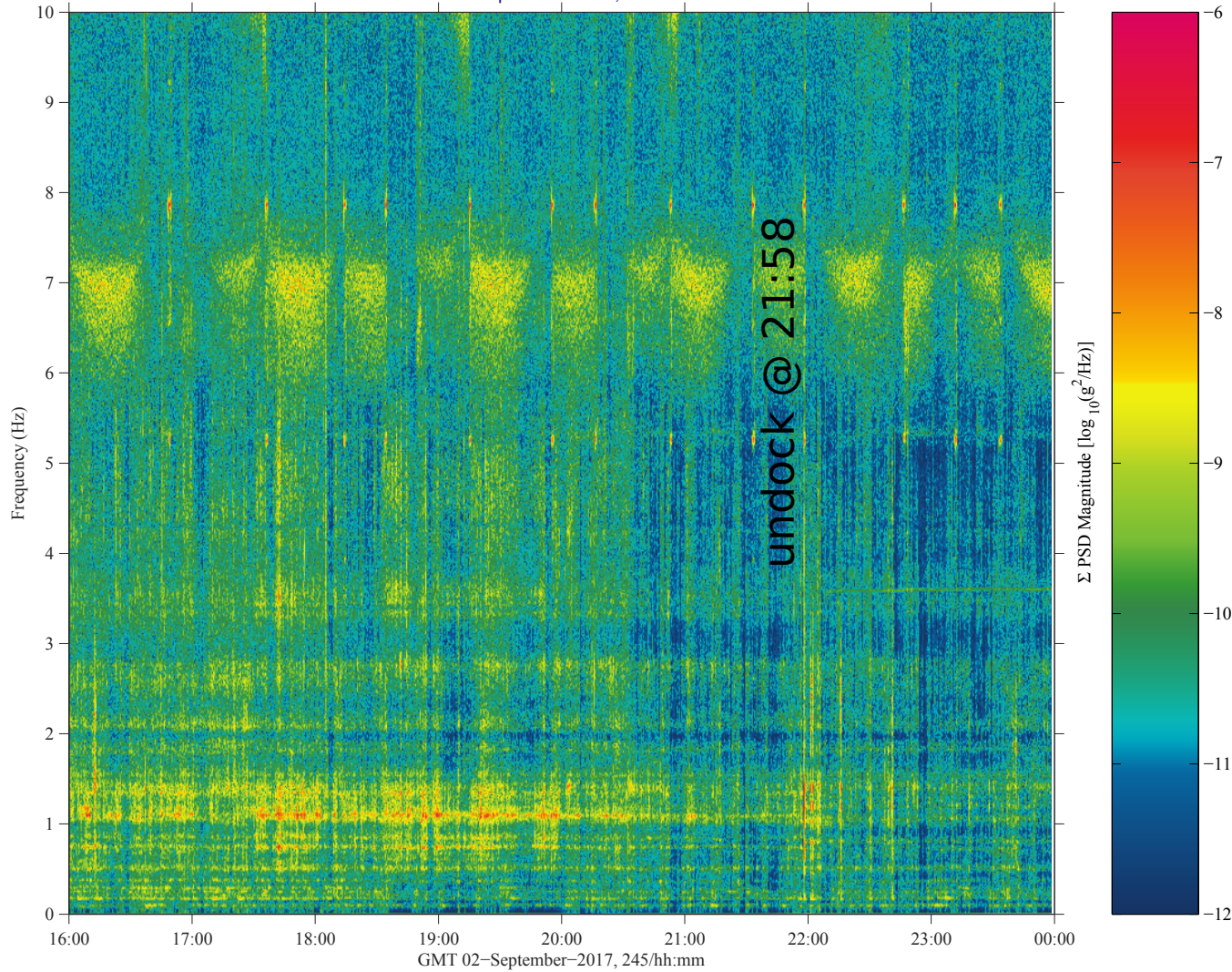


Soyuz 50S Undocking 02-Sep-2017 Qualify

sams2, 121f03 at LAB1O1, ER2, Lower Z Panel:[191.54 -40.54 135.25]
 500.0000 sa/sec (200.00 Hz)
 $\Delta f = 0.015$ Hz, Nfft = 32768
 Temp. Res. = 32.768 sec, No = 16384

sams2, 121f03

Start GMT 02-September-2017, 245/16:00:00.000



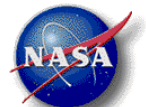
from: /misc/yoda/pub/past_pims, 04-Sep-2017,06:38:42.115

Description	
Sensor	SAMS 121f03 500.0 sa/sec, 200.0 Hz
Location	LAB1O1, ER2, Lower Z Panel
Plot Type	Spectrogram

Notes:

- This spectrogram qualitatively captures the events leading up to and including the Soyuz 50S undocking from a SAMS sensor in the US LAB.
- The undock event (separation) occurred at GMT 21:58.
- A maneuver to Solar Array Joint (SARJ) park attitude was from 18:04 to 18:16.
- A maneuver to post undocking attitude was from 22:15 to 22:22.

Regime:	Vibratory
Category:	Vehicle
Source:	Soyuz 50S Undocking 02-Sep-2017

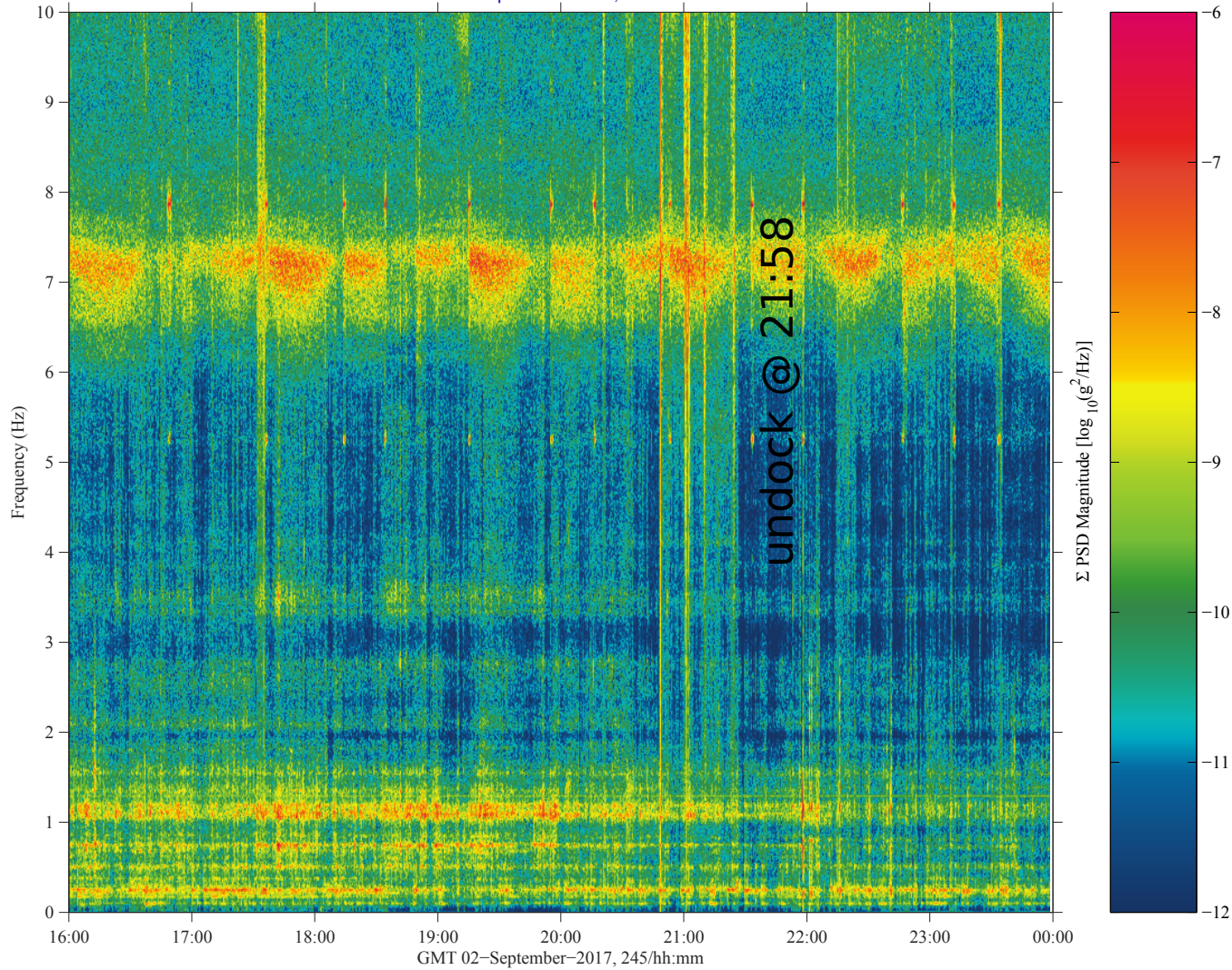


Soyuz 50S Undocking 02-Sep-2017 Qualify

sams2, 121f05 at JPM1F5, ER4, Drawer 2:[466.80 -292.06 214.58]
 500.0000 sa/sec (200.00 Hz)
 Δf = 0.015 Hz, Nfft = 32768
 Temp. Res. = 32.768 sec, No = 16384

sams2, 121f05

Start GMT 02–September–2017, 245/16:00:00.000



Description	
Sensor	SAMS 121f05 500.0 sa/sec, 200.0 Hz
Location	JPM1F5, ER4, Drawer 2
Plot Type	Spectrogram

Notes:

- This spectrogram captures the same information as on the previous page except the SAMS sensor here was mounted in the JEM.

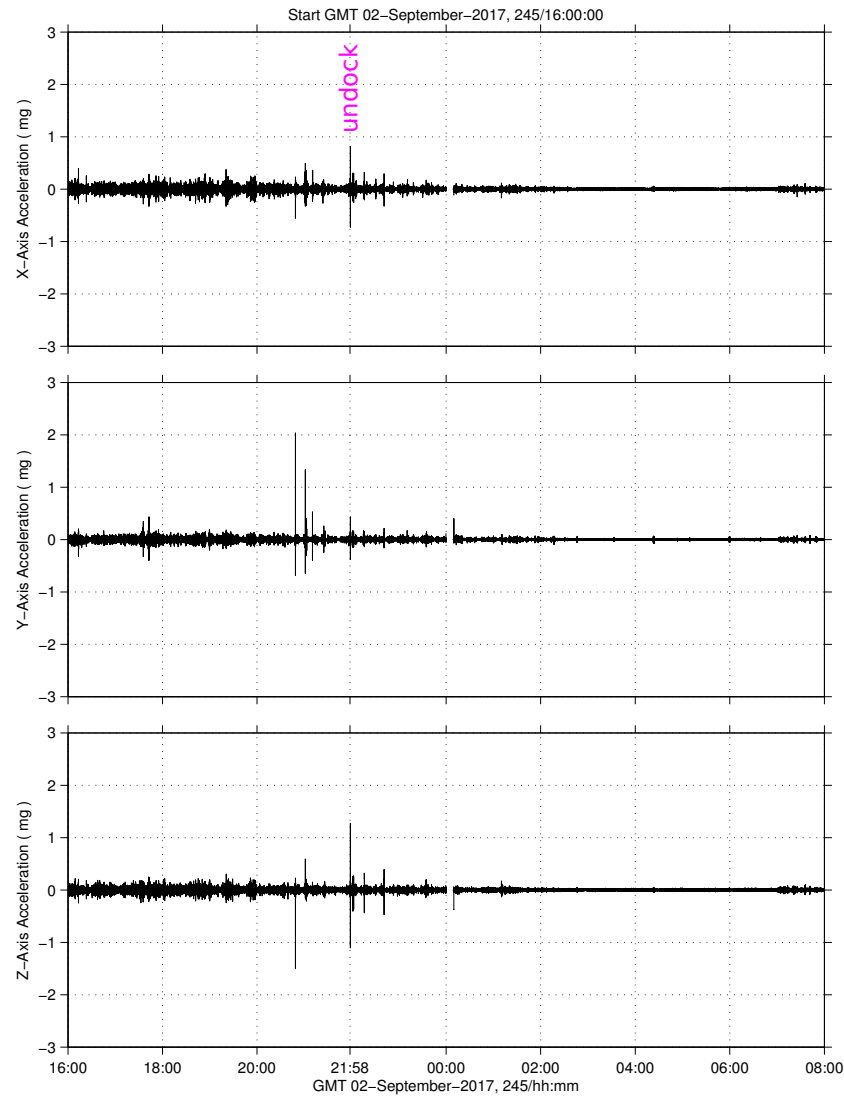
Regime:	Vibratory
Category:	Vehicle
Source:	Soyuz 50S Undocking 02-Sep-2017



Soyuz 50S Undocking 02-Sep-2017

Quantify

sams2, 121f05006 at JPM1F5, ER4, Drawer 2:[466.80 -292.06 214.58]
 142.0000 sa/sec (6.00 Hz) SAMS2, 121f05006, JPM1F5, ER4, Drawer 2, 6.0 Hz (142.0 s/sec) SSAnalysis[0.0 0.0 0.0]



Description	
Sensor	SAMS 121f05 142.0 sa/sec, 6.0 Hz
Location	JPM1F5, ER4, Drawer 2
Plot Type	XYZ Accel. vs. Time

Notes:

- This 3-panel plot of X-, Y- and Z-axis acceleration versus time came from SAMS measurements made in the JEM after 6 Hz low-pass filtering to better show the impulsive transient acceleration at the time of physical separation of the 2 spacecraft.
- The push-away appears to have 2 primary components aligned with the XZ-plane.

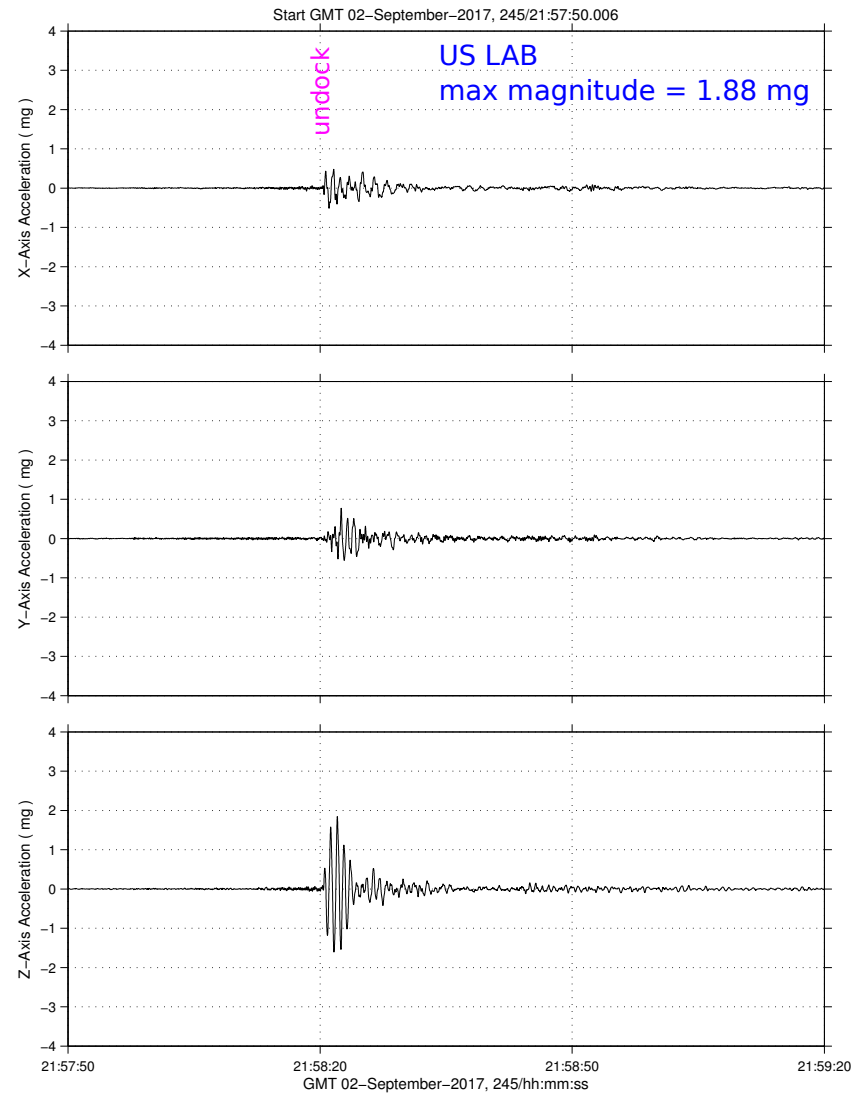
Regime:	Vibratory
Category:	Vehicle
Source:	Soyuz 50S Undocking 02-Sep-2017



Soyuz 50S Undocking 02-Sep-2017

Quantify

sams2, 121f03006 at LAB1O1, ER2, Lower Z Panel[191.54 -40.54 135.25]
 142.0000 sa/sec (6.00 Hz) SAMS2, 121f03006, LAB1O1, ER2, Lower Z Panel, 6.0 Hz (142.0 s/sec) SSAnalysis[0.0 0.0 0.0]



Description	
Sensor	SAMS 121f03 142.0 sa/sec, 6.0 Hz
Location	LAB1O1, ER2, Lower Z Panel
Plot Type	XYZ Accel. vs. Time

Notes:

- This 3-panel plot of acceleration versus time shows SAMS data from the US LAB low-pass filtered (LPF) at 6 Hz.
- Peak acceleration vector magnitude registered in the US LAB at this 6 Hz LPF setting was 1.88 mg.

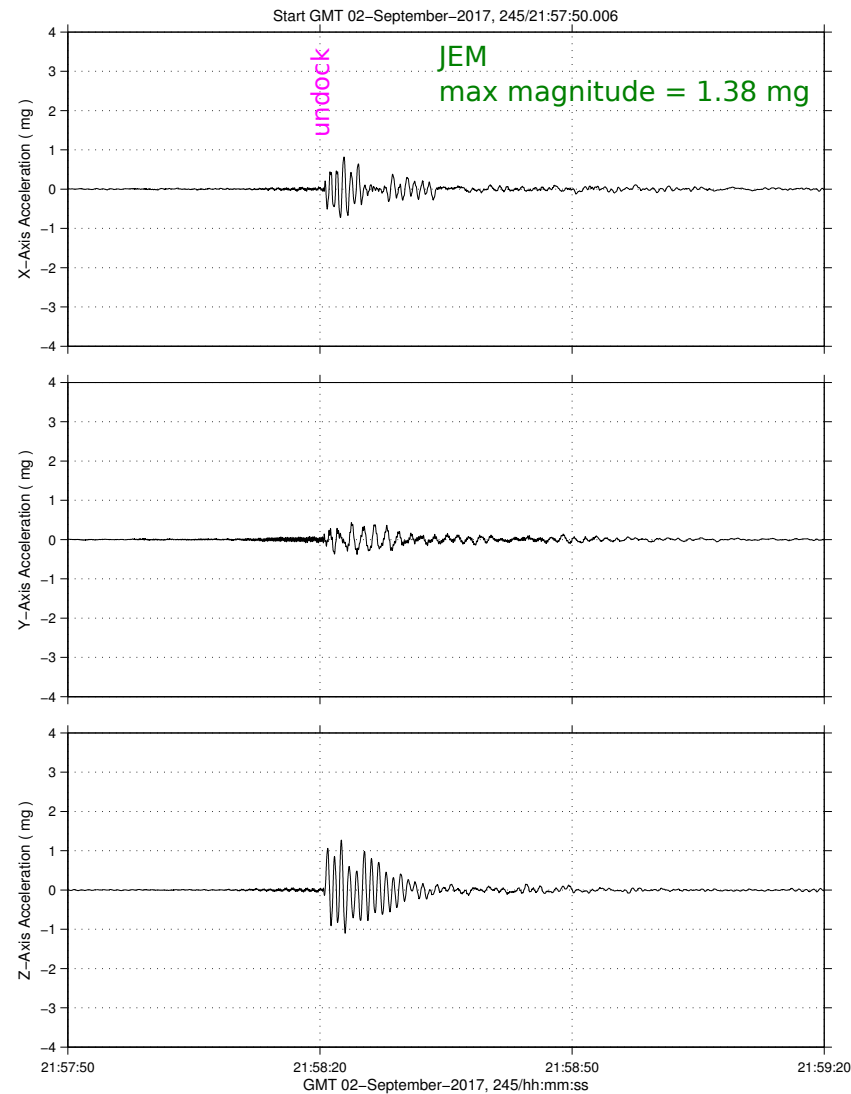
Regime:	Vibratory
Category:	Vehicle
Source:	Soyuz 50S Undocking 02-Sep-2017



Soyuz 50S Undocking 02-Sep-2017

Quantify

sams2, 121f05006 at JPM1F5, ER4, Drawer 2:[466.80 -292.06 214.58]
 142.0000 sa/sec (6.00 Hz) SAMS2, 121f05006, JPM1F5, ER4, Drawer 2, 6.0 Hz (142.0 s/sec) SSAnalysis[0.0 0.0 0.0]



Description	
Sensor	SAMS 121f05 142.0 sa/sec, 6.0 Hz
Location	JPM1F5, ER4, Drawer 2
Plot Type	XYZ Accel. vs. Time

Notes:

- This 3-panel plot of acceleration versus time shows SAMS data from the JEM low-pass filtered (LPF) at 6 Hz.
- Peak acceleration vector magnitude registered in the JEM at this 6 Hz LPF setting was 1.38 mg.

Regime:	Vibratory
Category:	Vehicle
Source:	Soyuz 50S Undocking 02-Sep-2017



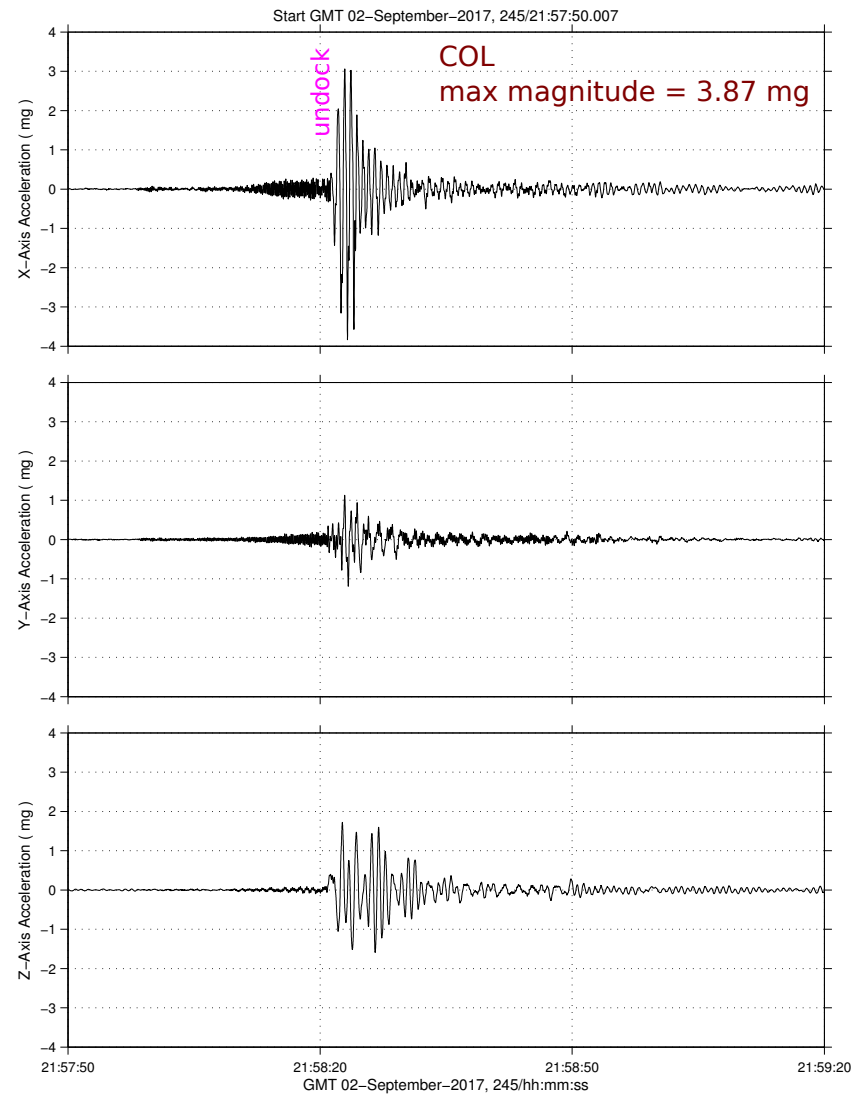
Soyuz 50S Undocking 02-Sep-2017

Quantify

sams2, 121f08006 at COL1A3, EPM, near PK-4 [371.17 287.43 165.75]
142.0000 sa/sec (6.00 Hz)

SAMS2, 121f08006, COL1A3, EPM, near PK-4, 6.0 Hz (142.0 s/sec)

SSAnalysis[0.0 0.0 0.0]



Description	
Sensor	SAMS 121f08 142.0 sa/sec, 6.0 Hz
Location	COL1A3, EPM, near PK-4
Plot Type	XYZ Accel. vs. Time

Notes:

- This 3-panel plot of acceleration versus time shows SAMS data from the COL low-pass filtered (LPF) at 6 Hz.
- Peak acceleration vector magnitude registered in the COL at this 6 Hz LPF setting was 3.87 mg – much of that from the X-axis direction.

Regime:	Vibratory
Category:	Vehicle
Source:	Soyuz 50S Undocking 02-Sep-2017

