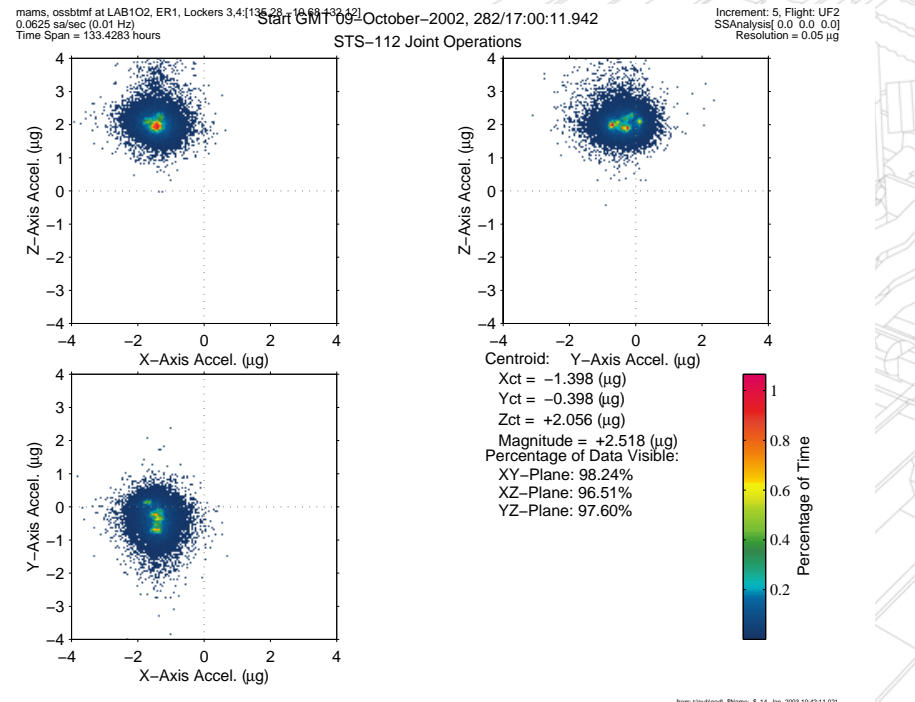
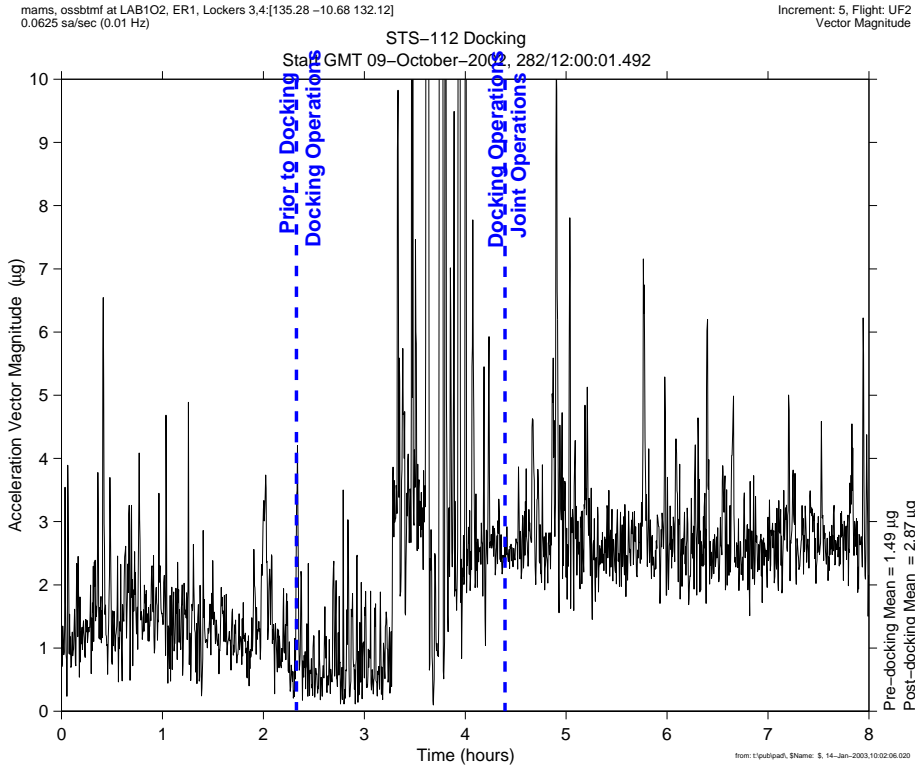
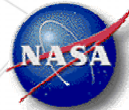


ISS, Shuttle Joint Operations



Microgravity Science Division



Glenn Research Center

PIMS ISS Acceleration Handbook
Date last modified 2/13/04

Description

Sensor	ossbmf 0.0625 sa/sec (0.01 Hz)
Location	LAB1O2, ER1, Lockers 3,4
Orientation	Space Station Analysis (SSA)
Inc/Flight	Increment: 5, Flight: UF2
Plot Type	Quasi-steady Three Dimensional Histogram

NOTES:

- Mating of Shuttle to ISS results in a significant change in the quasi-steady vector due to center of mass (CM) shift away from the OSS sensor, detailed in the table below.

OSS Distance to CM (feet)		
ISS	Joint Ops	Δd
47.8	17.6	-30.2
-1.98	-1.52	0.46
2.33	-17.0	-19.3

- The top plot shows the mean acceleration magnitude at the OSS location increasing from 1.49 μg (prior to docking) to 2.87 μg (after docking).

- Results for entire STS-112 joint operations. Centroid is an estimate of the mean.

Axis	Centroid (μg)
X	-1.40
Y	-0.40
Z	2.06
Magnitude	2.52

Regime:	Quasi-steady
Category:	Vehicle
Source:	Joint Operations