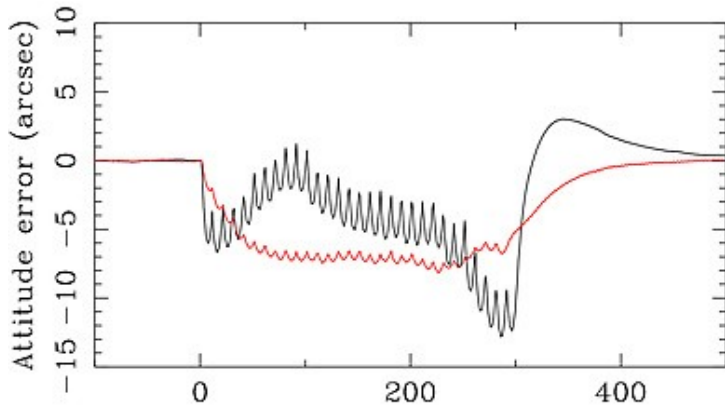




# Momentum dumps during science

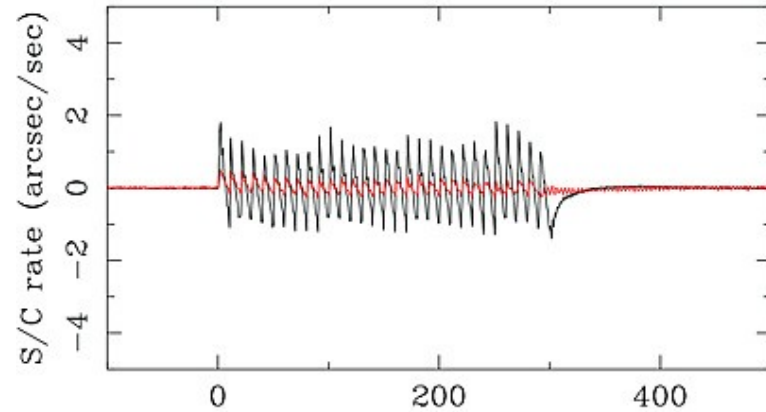
A momentum dump during a science observation causes large attitude errors and high rates:

Obsid 6687 att. error (pitch=black yaw=red)



Time (sec) from 2006:142:14:10:00

Obsid 6687 rate (pitch=black yaw=red)

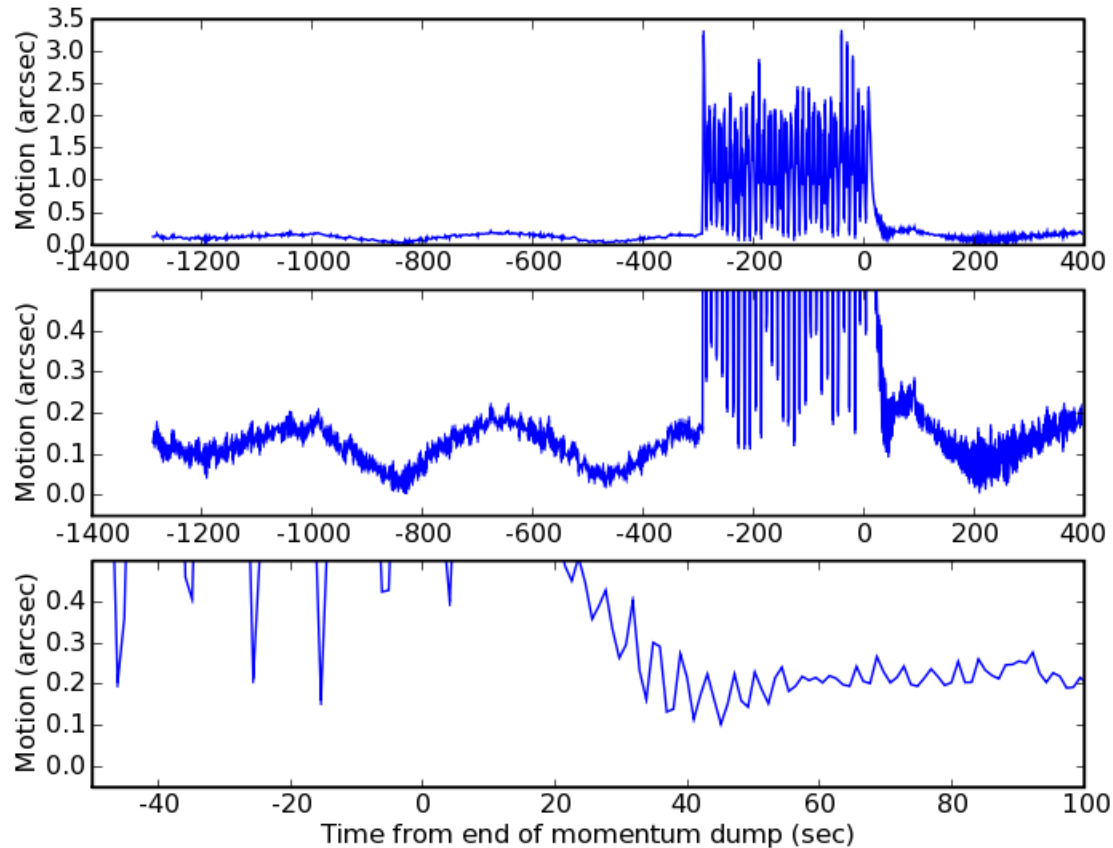


Time (sec) from 2006:142:14:10:00



## Momentum dumps during science

Key problem with high rates is motion during the ACIS frame integration (up to 3.2 sec)





## Momentum dumps during science

Momentum dumps during science observations produce unacceptable degradation of ACIS image quality.

### *Mitigation*

- MP Guideline requiring that science observation time not include the dump interval + 60 seconds
- Ground aspect pipeline automatically marks this interval as bad quality.
  - The 60 second pad is not currently included, so an enhancement request will be made.