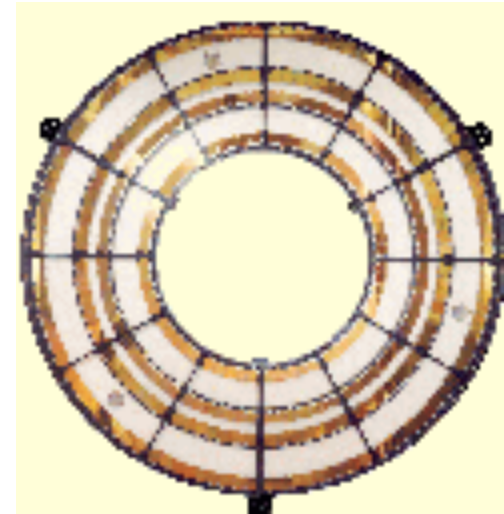




HETG - Status



Chandra Quarterly Review No. 17, December 2-3, 2004

Dan Dewey
dd@space.mit.edu

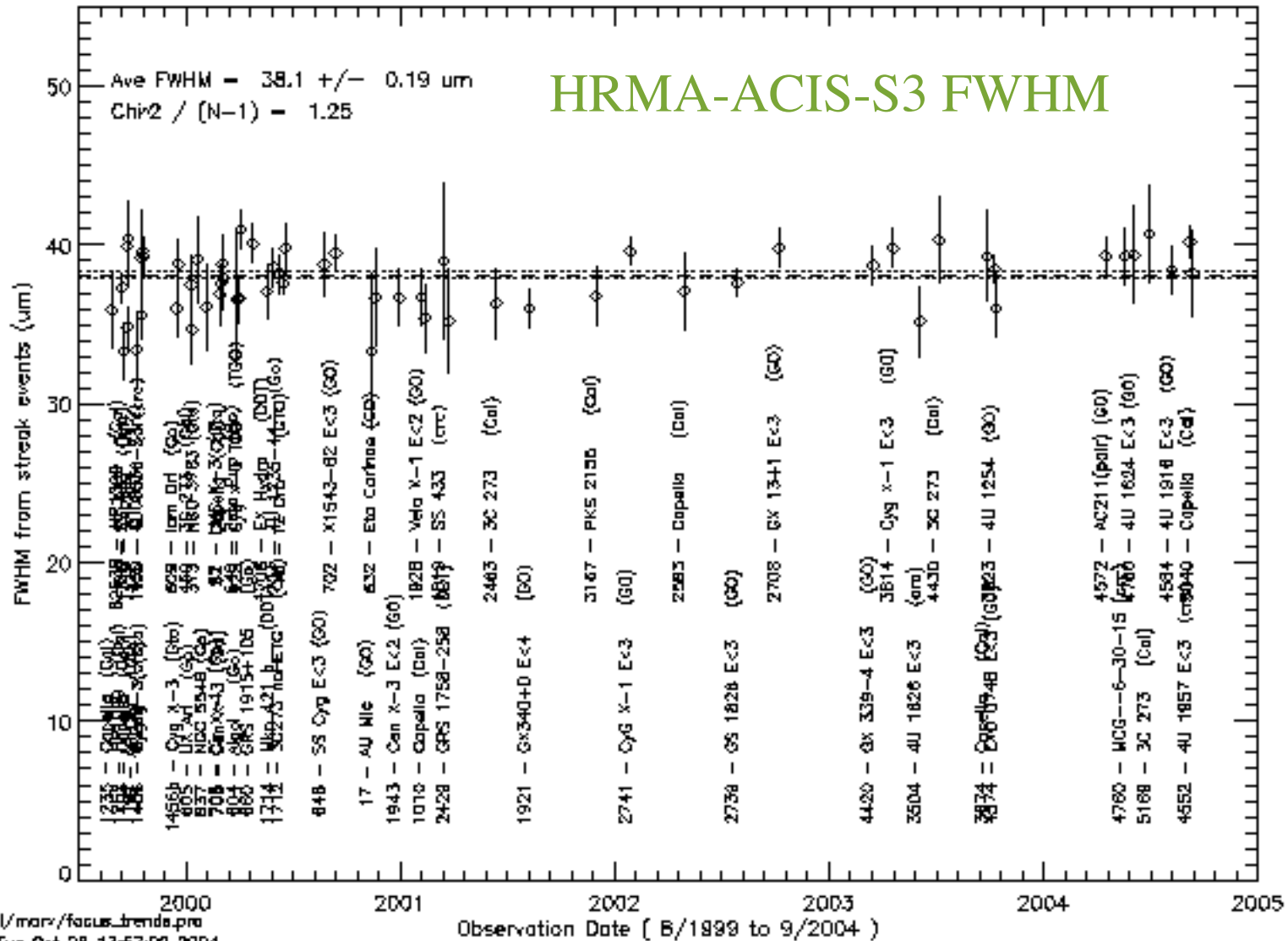
HETG IPI: Prof. C.R. Canizares
MIT Center for Space Research

Ongoing HETG Team Activities Summary

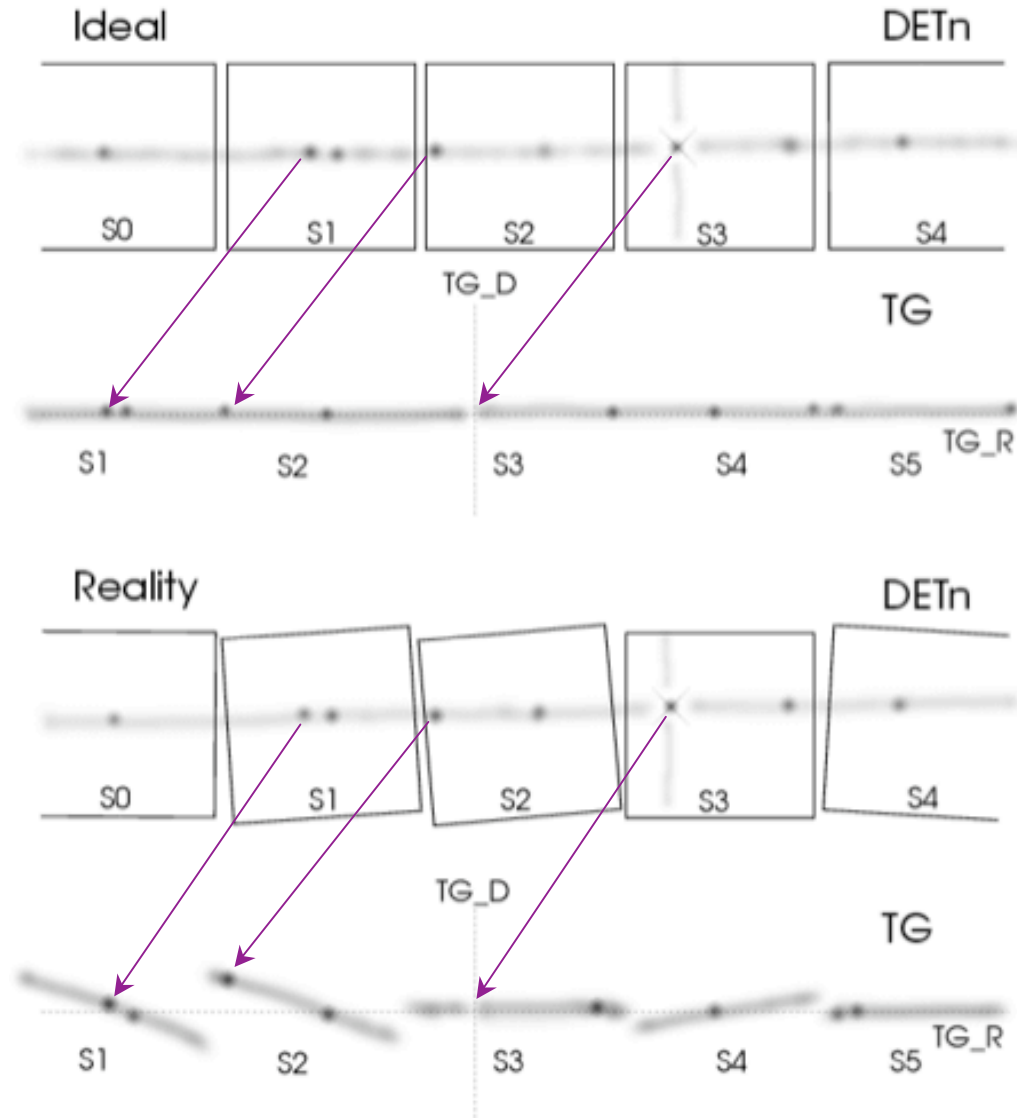
- HETG Performance and Calibration
 - 20 HETG obsids in July-October (1 GTO, 1 Cal) - Performance is Nominal.
 - Monitoring HRMA FWHM continued, figure on next page.
 - Calibration Progress (done by Cal Workshop) :
 - o Calibration update to ACIS-S chip locations submitted for CALDB inclusion - very small changes: <0.2 pixel, <0.02 degrees to correct ACIS-S chip rolls and offsets.
 - o See: http://space.mit.edu/ASC/docs/memo_geometry_acis_s_1.0.ps.gz
 - o Flight MEG period adjusted by 135 ppm, from 4001.41 \AA to 4001.95 \AA to bring MEG and HEG wavelength scales into agreement at 30 ppm level ($\sim 10 \text{ km/s}$ Doppler velocity.)
 - o Absolute period calibration adjustment requires a "standard" be chosen...
 - o See: http://space.mit.edu/HETG/technotes/chip_gaps04/chip_gaps04.html



Zeroth-order 1D FWHM vs Time

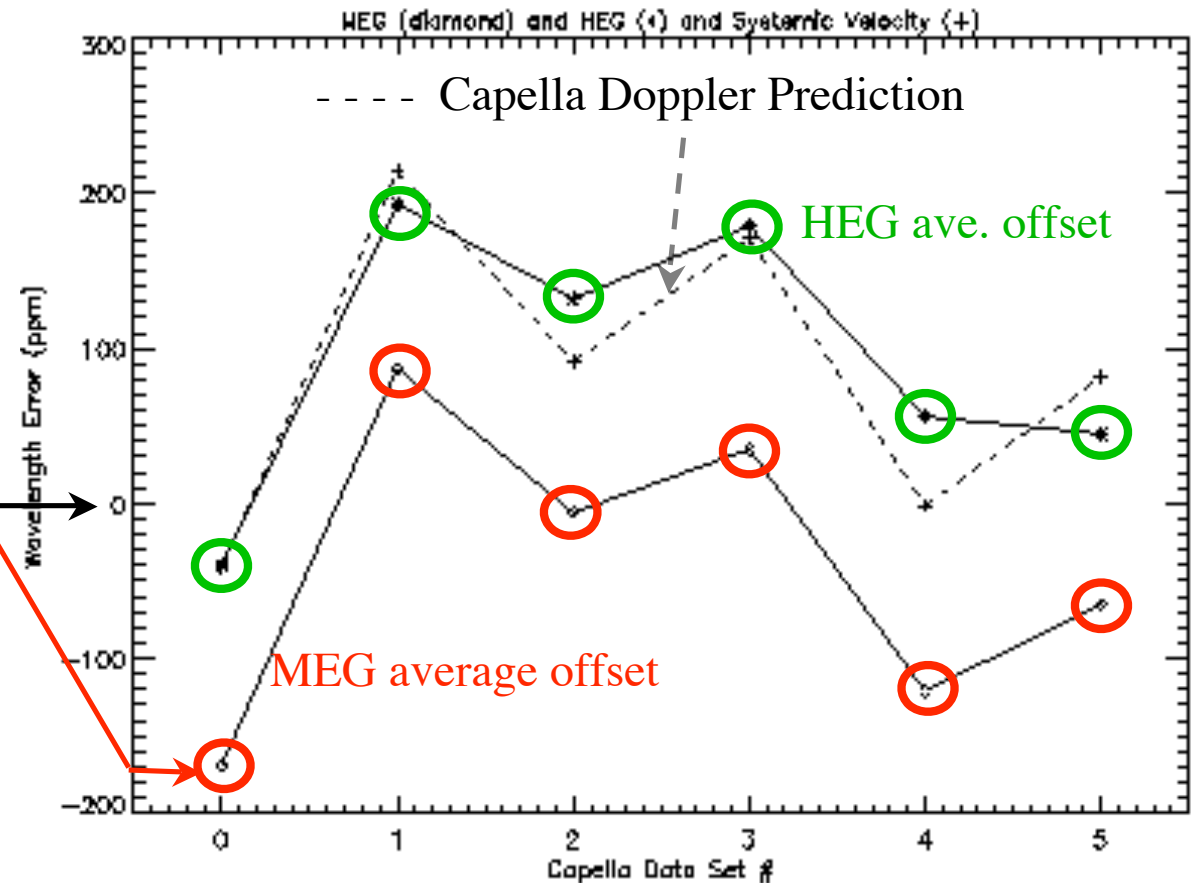
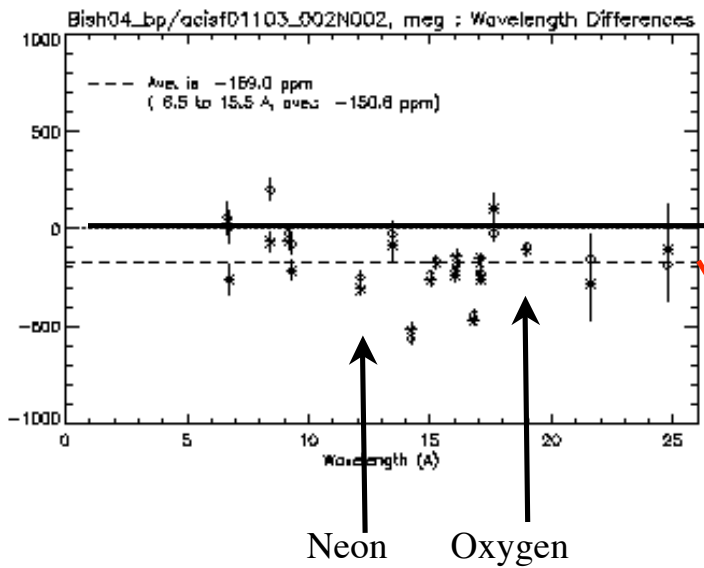


Calibration update to ACIS-S chip locations submitted for CALDB inclusion - very small changes: <0.2 pixel, <0.02 degrees to correct ACIS-S chip rolls and offsets.



From Ishibashi memo: http://space.mit.edu/ASC/docs/memo_geometry_acis_s_1.0.ps.gz

Capella Obsid 1103 MEG Wavelength Errors



Flight MEG period adjusted by 135 ppm, from 4001.41 Å to 4001.95 Å to bring MEG and HEG wavelength scales into agreement at 30 ppm level (~ 10 km/s Doppler velocity.)

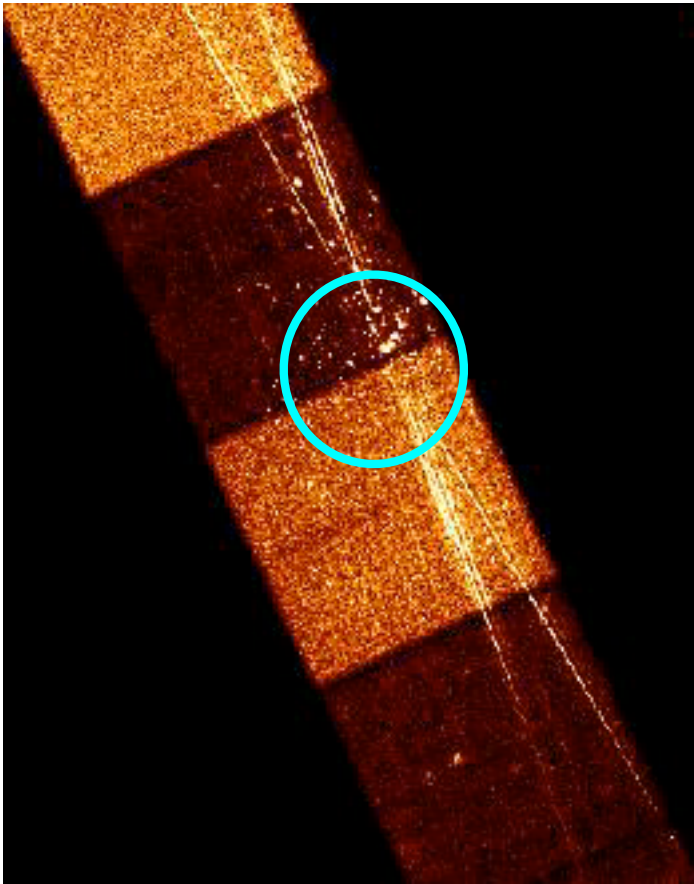
From: http://space.mit.edu/HETG/technotes/chip_gaps04/chip_gaps04.html



Ongoing HETG Team Activities, cont.

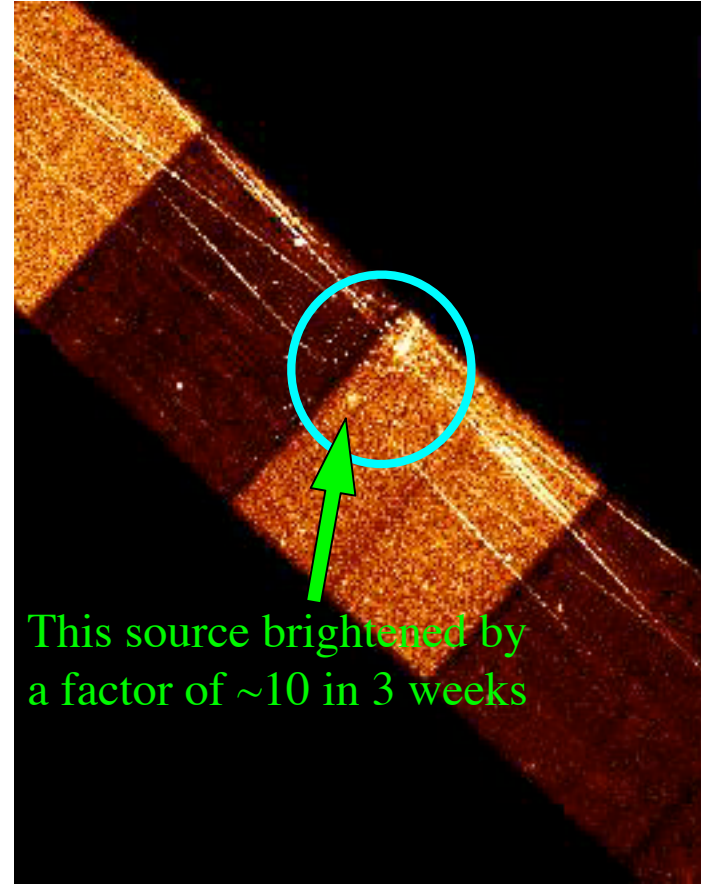
- Science Support to CXC, etc.
 - Reviewed and updated the HETG section of the Proposers' Observatory Guide (POG)
- GTO Science Program
 - 2 new Post-Docs arrived this Fall; next opening Fall 2006.
 - HETG spectra in talks/posters at the recent "X-Ray Diagnostics for Astrophysical Plasmas" meeting, <http://itamp.harvard.edu/xdap.html>, November 15-17, 2004.

Recent GTO Observations: Orion Nebula Cluster, Obsids 4473 and 4474 Same aim point, different roll angles



11/3/04

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11/23/04

The MEG minus-first order spectrum from the ONC "surprise" source - shows a strong, narrow Neon line, an Oxygen line, and high-energy continuum.

Colliding wind emission?

Emission from a companion corona ?

Observer:
Norbert Schulz /MIT

