

S7 operation update

Eric Dufresne, TRR group meeting, October 24, 2006

- The move of the L5-20 motor drivers to the roof of 7ID-A went well. DW tested them and they work well. (Work done by DA, HG, AES)
- After opening the monochromator and cleaning the first crystal with Tim Graber, DW realigned the monochromator. He found it to work like last run, and calibrated the energy to 1 eV or so.
- DW took care of the yearly shielding verification of the 7ID hutches in monochromatic mode. This went well.
- ED spent several days testing the new monochromator performance. It looks as though there is mounting strain on the second crystal. Special thanks to Tim Graber for his help on debugging this. We plan to remount the second crystal and test the mono again in the week of Nov 7-13.

Shutdown activities (cont.)

- EL, EP, BK, ED, BA, DW commissioned the new 7ID-B x-ray BPM as well as Steve Ross's Quad Electrometer electronics. In particular, Bertold Kraessig was able to shield and ground the cables enough to use a regular power supply.
- Work by Mark Erdman (AES) on the pillar post in 7ID-D and E to help the laser stability is going well and should be installed later in the run.
- Tim Mooney has moved the 7ID-D EPICS to 3.14. The crate is working well and most of the bugs have to be sorted out.
- DW installed two new JJ X-ray slits at the entrance of 7ID-C and 7ID-D and they were tested in the first week of operation. They work great!
- Two sets of ADC slits are being commissioned this week for the 7ID-D Huber 4 circle diffractometer.

7ID R&D

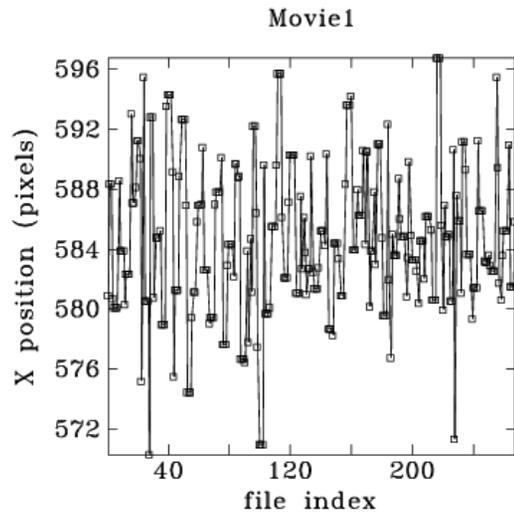
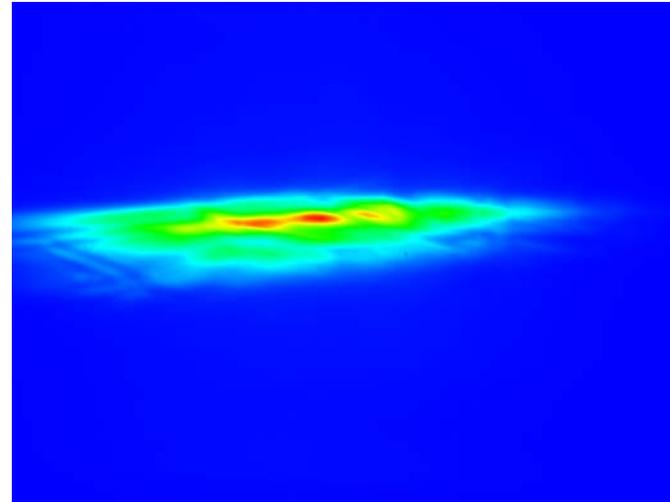
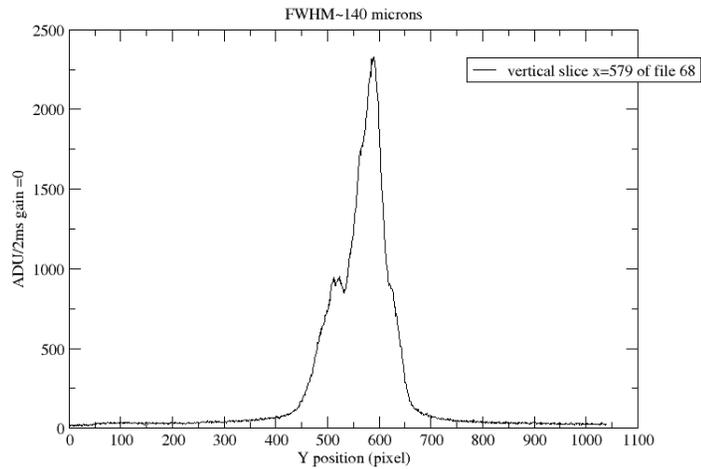
- EL presented a talk to all XOR staff members on the science with picosecond x-rays (Oct. 9).
- A new paper on X-ray phase-contrast imaging of air-assisted high-velocity water sprays has been published in the Oct. 9 issue of Applied Physics Letters, coauthored by a collaboration between the APS Time Resolved Research Group and Illinois Tool Works Inc. Our congratulations go to the group of Jin Wang on this important milestone!
- Two ultrafast experiments collected good preliminary data in the past two weeks (Rob Crowell's group, and Bernhard Adams.) BA for example demonstrated single bunch imaging capability with a gated image intensifier, and studied with it ablated Ga plumes, while Crowell's group are demonstrating femto-chemistry experiments on 7ID.

Trip Hazard (Don Walko Oct. 23)

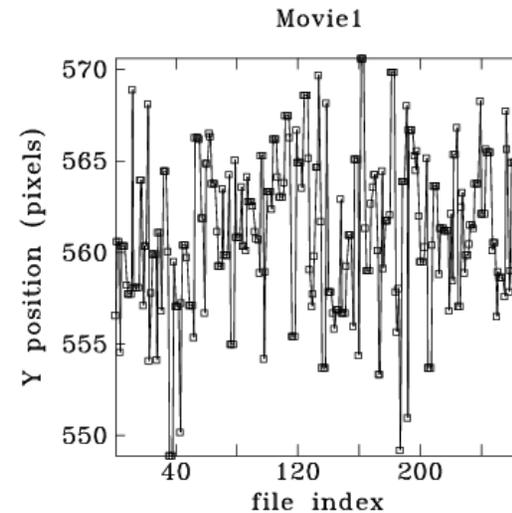


Yesterday, Don tripped on a L-shape Al piece on the edge of the 7ID-D hutch door. He bruised his knee, and ribs but is doing overall well. Harold will remedy the trip hazard for all the 7ID hutches.

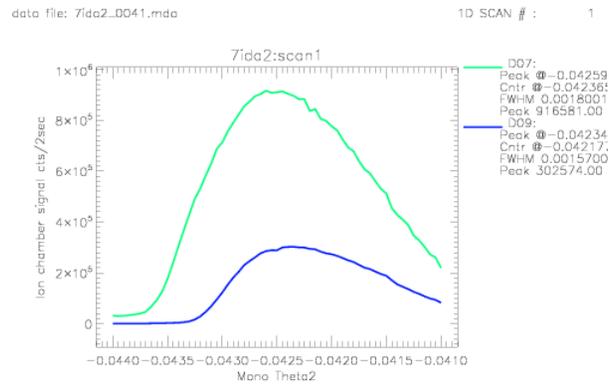
Beam profile by ED, 10/6



2 min long
movie



Strain from theta2 with 4.75mm thick Al foil filter.



Oct 11, 2006 11:40:23.122561474
comment: D07 is lo (main beam) D09 is filtered with 4.75mm of Al

