

Machine Update

NSLS Town Meeting

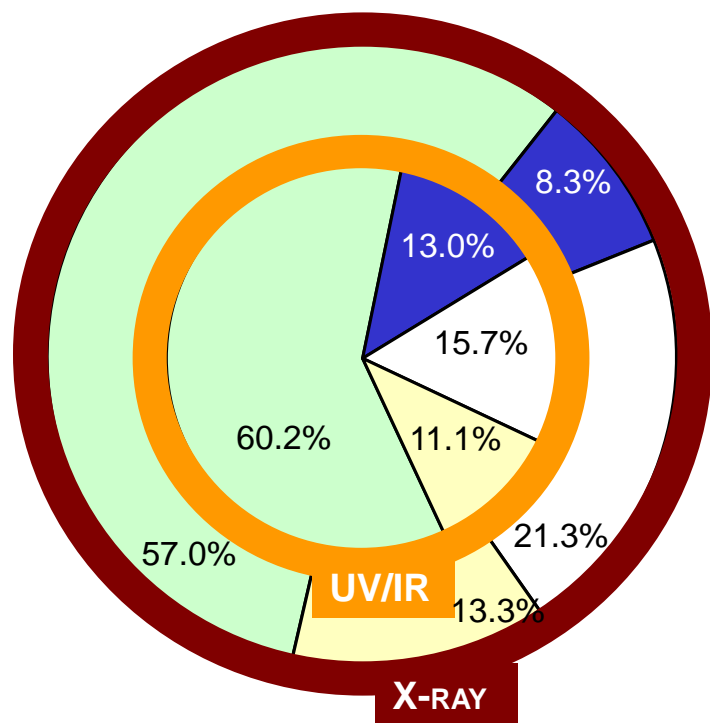
Emil Zitvogel

Tuesday October 28, 2014

Topics

- FY 2014 Statistics
- Details of the Final NSLS Shut Down
- NSLS Stabilization
- Moving to NSLS-II
- Progress at NSLS-II
- Closing Remarks

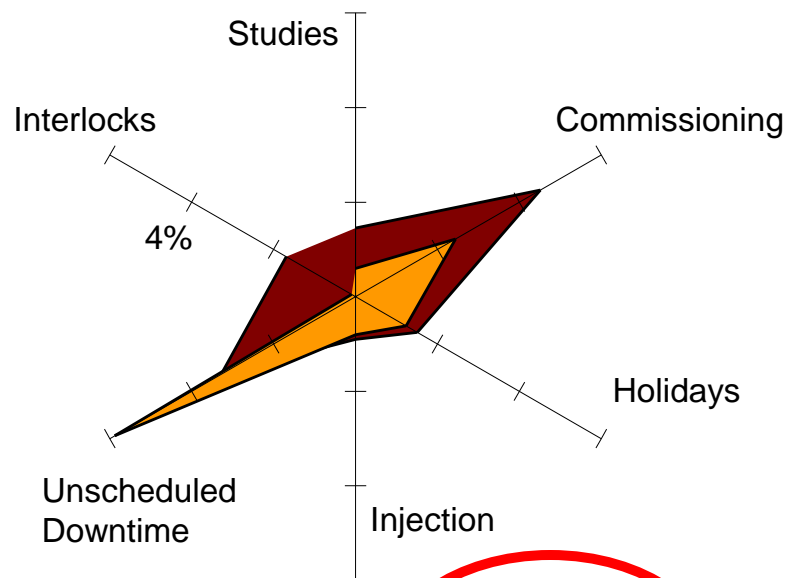
FY2014 Statistics



| Activity /Hours | UV/IR | X-ray |
|------------------------|--------|--------|
| Operations | 5270.5 | 4995.2 |
| Unscheduled Operations | 1142.9 | 726.5 |
| Maintenance | 1378.4 | 1869.0 |
| Other | 968.2 | 1169.3 |

| Other Activities | UV/IR | X-ray |
|----------------------|-------|-------|
| Studies | 0.6% | 1.5% |
| Com/Con | 2.4% | 4.5% |
| Holiday | 1.2% | 1.5% |
| Injection | 0.8% | 0.9% |
| Unscheduled Downtime | 5.9% | 3.3% |
| Interlock | 0.1% | 1.7% |

YTD 8760 Hrs 100 Hrs= 1.1%



| User Metrics | UV/IR | X-ray |
|--------------|--------|--------|
| Reliability | 91.1% | 94.5% |
| Availability | 110.8% | 108.3% |

Despite some very rough months, the machines performed well at the end



Last Light Celebration



Hundreds of people came together on 9/30 to commemorate the last light from the NSLS and to celebrate its long life span. However, these machines have never gone down without a fight...



Behind the Scenes

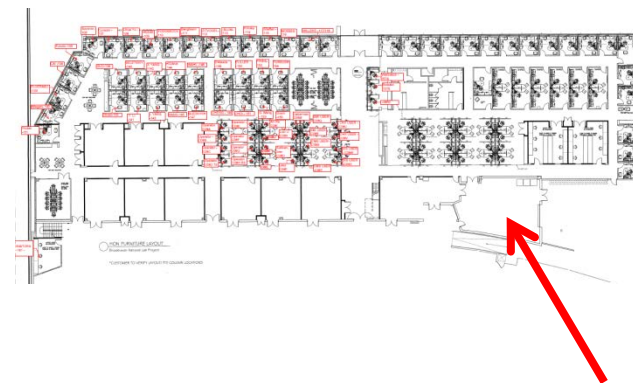
- The morning of 9/30 began with a moderate power dip that dumped beam in both rings at 7:45.
- Beam was injected and all looked well until a report came in of an overheat condition in a 480 V feed for chiller 1. We switched to site chilled water seamlessly and locked out the panel.
- During the ceremony in the control room, one of the workstations that Gary was going to use to shutdown the x-ray ring locked up. You can see him in the background calmly restarting the machine which was up and running for the final beam dump.

NSLS Stabilization

- Following the last light festivities, the Operations staff executed the shutdown checklists and broke security, which put the machines into a shutdown mode.
- The next day Power Systems, Electricians, Vacuum, Diagnostics, and Utility Group members began to:
 - Isolate 208 and 480 VAC to high power equipment using disconnect switches
 - Short capacitor banks
 - Unplug corded equipment
 - Bleed up the vacuum pipes with dry nitrogen
 - Drain water from pumps and water-cooled components
 - Turn off micro's, UPSs & workstations
- These activities are complete or are progressing very well.

Moving to NSLS-II

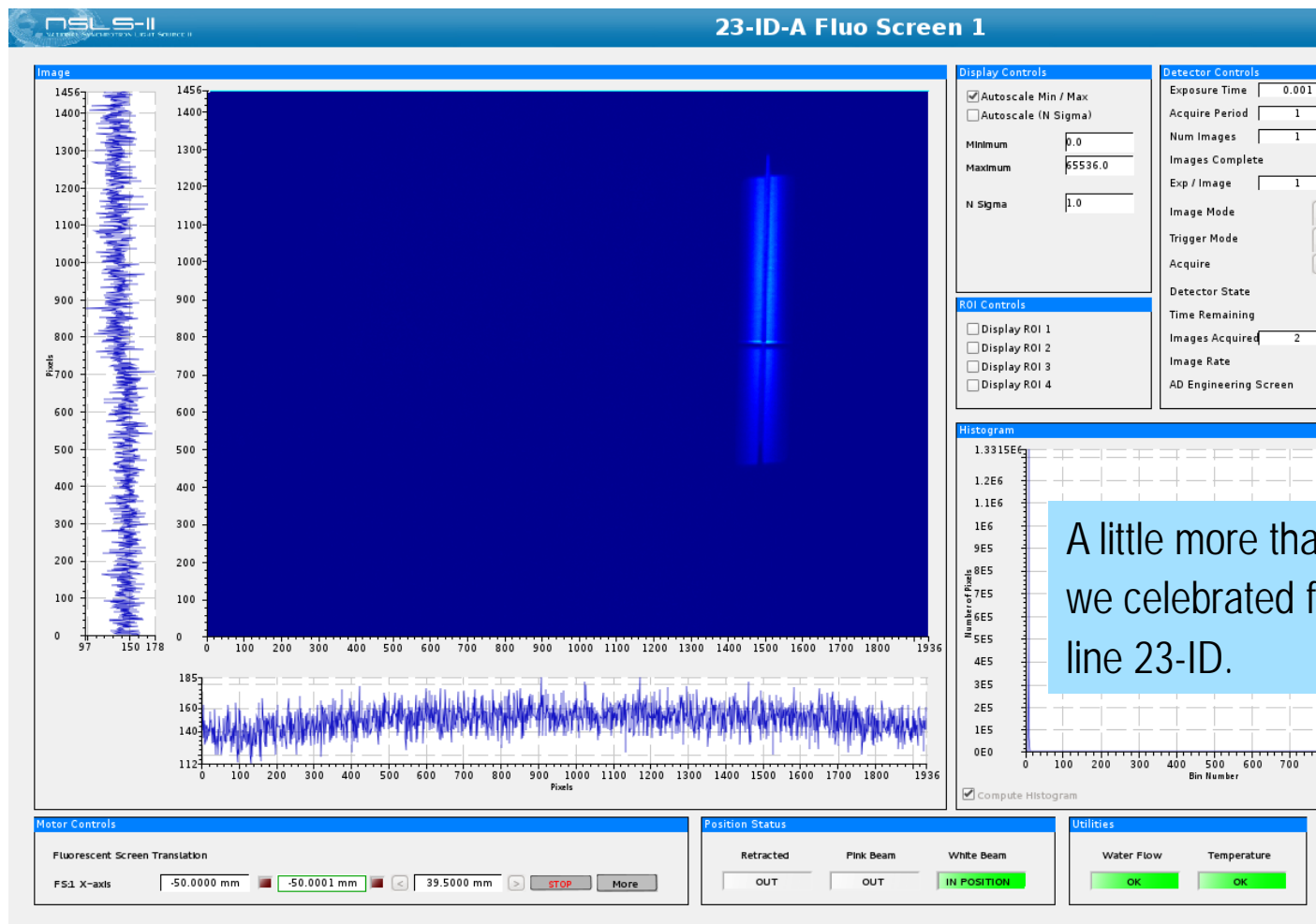
Operators have now moved into a new control room in LOB4.



Please stop by sometime to have a look

The Floor Coordinators have a new home in the FC office outside of LOB3

From NSLS Last Light to NSLS-II First Light



A little more than 3 weeks later, we celebrated first light at beam line 23-ID.



Other NSLS-II Commissioning Progress

- Fault studies have been completed at 23-ID at 50 mA.
- Commissioning the damping wiggler at 28-ID began this past weekend at 0.5 mA.
- PPS testing and certification is complete for 5-ID, 10-ID & 11-ID.
- PPS testing and certification at 3-ID will be completed this week.

Closing Remarks

NSLS has provided user light for more than 3 decades and ran well right up to the end

We are all proud to have been a part of that history

The torch has been passed to NSLS-II where we expect many more decades of user beam that will far surpass the capabilities of NSLS

Thank you all