

# Machine Update

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## **NSLS Town Meeting**

**Emil Zitvogel**

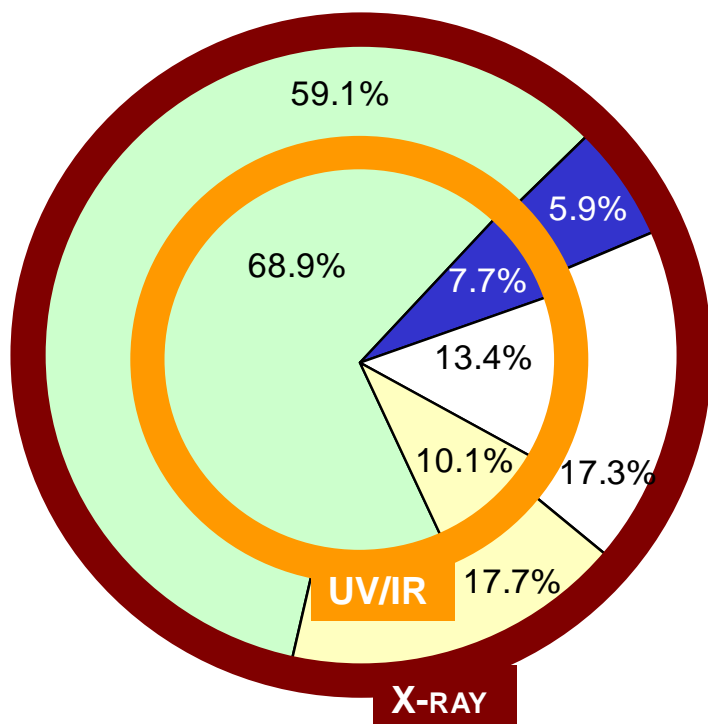
**Thursday, November 10, 2011**

# Topics

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- Statistics
- Shutdown Schedules
- XRF 2B 125 kW Tube Change
- Winter Shutdown Activities
- All Hands on Deck for NSLS II
- Closing Remarks

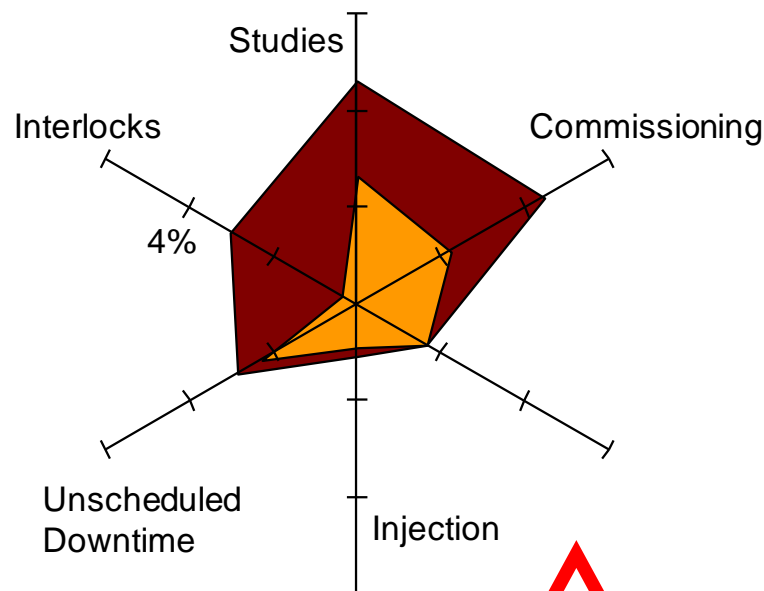
# FY2011 Year-End Statistics



Activity /Hours	UV/IR	X-ray
Operations	6036.3	5175.4
Unscheduled Operations	670.7	520.8
Maintenance	1171.0	1517.5
Other	882.0	1546.3

Other Activities	UV/IR	X-ray
Studies	2.7%	4.7%
Com/Con	2.2%	4.5%
Holiday	1.6%	1.6%
Injection	0.9%	1.1%
Unscheduled Downtime	2.3%	2.8%
Interlock	0.4%	3.0%

YTD 8760 Hrs 100 Hrs= 1.1%

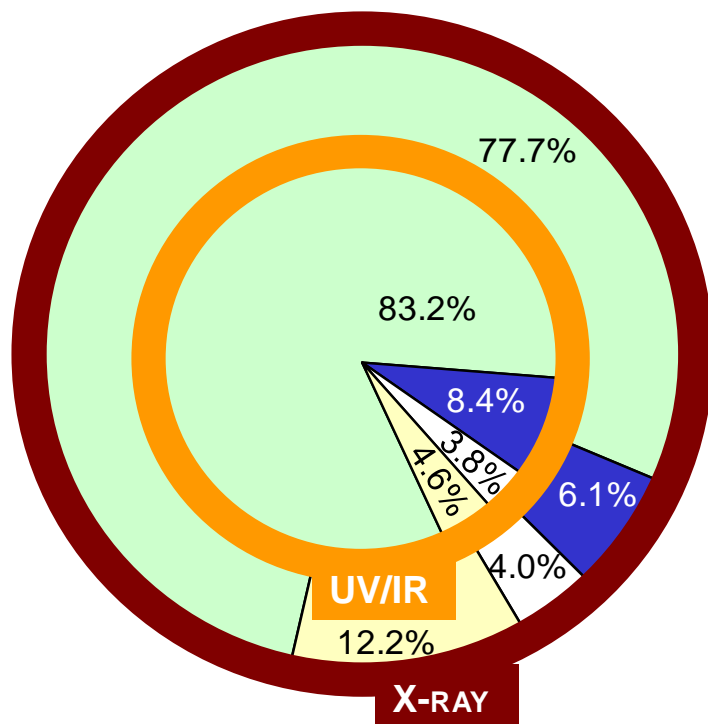


User Metrics	UV/IR	X-ray
Reliability	96.8%	95.4%
Availability	101.6%	105.0%



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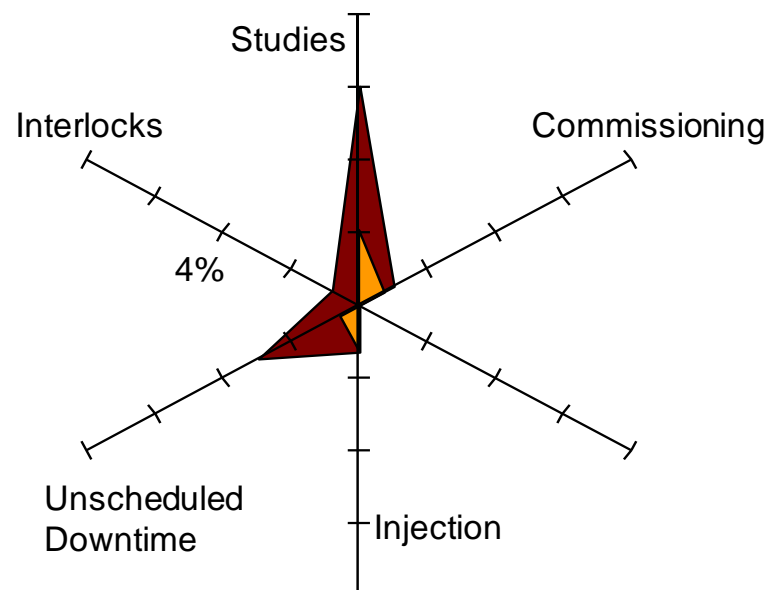
# First Month FY2012 Statistics



Activity /Hours	UV/IR	X-ray
Operations	619.0	578.0
Unscheduled Operations	62.7	45.5
Maintenance	28.0	30.0
Other	34.3	90.5

Other Activities	UV/IR	X-ray
Studies	2.1%	6.0%
Com/Con	0.8%	1.0%
Holiday	0.0%	0.0%
Injection	1.2%	1.3%
Unscheduled Downtime	0.5%	3.0%
Interlock	0.0%	0.8%

YTD 744 Hrs 100 Hrs= 13.4%



User Metrics	UV/IR	X-ray
Reliability	99.4%	96.3%
Availability	109.4%	103.9%



# Thanksgiving Shutdown Schedule

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• Beam Off Both Rings	11/23	8pm
• Water Off (Air on in studies state)	11/23	10pm
• Resume CR Shift	11/28	8am
• Water On	11/28	8am
• Linac/Booster Interlock Check	11/28	
• VUV Interlock Check	11/29	
• X-Ray Interlock Check	11/30	
• VUV Beam Established	11/29	pm
• X-Ray Beam Established	11/30	pm
• VUV Normal Ops	12/1	Midnight
• X-Ray Normal Ops	12/2	Midnight

# Winter Shutdown Schedule

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|---------------------------------------|--------------|----------|
| • Beam Off Both Rings                 | 12/19        | 6am      |
| • Water Off (Air on in studies state) | 12/19        | 10am     |
| • Resume CR Shift                     | 1/10         | 8am      |
| • Water On                            | 1/10         | 8am      |
| • X17 Interlock Check                 | 1/11 to 1/12 |          |
| • VUV Beam Established                | 1/10         | pm       |
| • X-Ray Beam Established              | 1/12         | pm       |
| • VUV Normal Ops                      | 1/13         | Midnight |
| • X-Ray Beam Observation              | 1/17         |          |
| • X-Ray Normal Ops                    | 1/18         | Midnight |

# XRF 2B 125 kW Tube Change

- The XRF 2B 125 kW tube degradation was being tracked for several weeks.
- RF staff acted proactively and replaced it during maintenance/studies earlier this week (no downtime, no interruption to operations).
- Beam was re-established by the evening.
- New tube is operating well.



Chris Sorrentino, Doug Durfee, Joe Papu  
(Roy D'Alsace, Gloria Ramirez, Aditya Goel)



# Winter Shutdown Activities

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- Installation of replacement interlock electronics board at X17B.
  - Board currently in operation was repaired following a short that developed when water from a roof leak went into the box.
- GP Valve Replacement at U8 (requires bleed-up of SP2).
- X4 High Voltage Vacuum Feed-through Replacement (X4 FE bleed-up).
- Utilities Maintenance.
  - Pumps, hose replacement, solenoid maintenance, proteus maintenance, water conditioning, etc.
- Mechanical & Electrical Maintenance.
  - Corrector power supplies, RF systems, main magnet supplies, ID maintenance, fast valve testing, vacuum pump maintenance, etc.
- There will be **no substation maintenance** this winter.



# All Hands on Deck for NSLS II

- As NSLS II equipment installation progresses, the need for help from NSLS staff has risen.
- Most of the NSLS staff is now heavily involved with NSLS II installation.
- Control room staff members are also taking on NSLS II tasks during one of their off days.



Lenny Pharr assembling panels for Wayne Rambo

# Closing Remarks

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NSLS continues to provide quality beam time to our large user community.

We continue to perform effective preventative maintenance to keep downtime to a minimum.

The labor needs of NSLS II have become integrated into each technical group, including the control room.

Thank you for your time.

Happy Holidays!