ASD Weekly Highlights for the Week Ending 18-Aug-2006

Operations

August 14-20

From 14-AUG-2006 to 20-AUG-2006
Generated 23-AUG-2006 10:43

Request Type	Hours	Percent Beam Activity
Beam Time to Extraction Dump	31.50	18.86
Beam Time to Target	114.00	68.26
Machine Studies (R & D)	10.00	5.99
Planned Shutdown (no Beam, no Testing)	4.50	2.69
Testing (Machine on, no Beam, e.g. RF Processing)	8.00	4.19
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Total Beam Activity Requested	**168.00**	

Recorded Activity Type	Hours	Percent of Total
Beam Time (delivered to Target)	88.00	62.77
Beam Time to Extraction Dump	19.00	13.55
Machine Studies (R&D)	18.70	13.34
Machine Studies (Remedial - to recover Beam Time)	1.50	1.07
Planned Shutdown (no Beam, no Testing)	4.50	3.21
Testing (Machine on, no Beam, e.g. RF Processing)	8.50	6.06
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Total Activity Recorded	**140.20**	
Total Planned Beam Time	**115.80**	
Total Downtime Recorded	**27.80**	**24.01**

Equipment Breakdown by Group, SubGroup and Sub_SubGroup

Group	SubGroup	Sub-SubGroup	Hours	%
Magnets	SCL Magnets		4.00	14.39
Magnets	Ring Magnets	Dipole 17D140	3.00	10.79
RF Systems	Cavities and Structures		2.00	7.19
RF Systems	LLRF - Low Level RF		.50	1.80
RF Systems	HPRF - High Power RF		1.00	3.60
Electrical Systems	LEBT Chopper		1.00	3.60
Electrical Systems	Power Supplies		10.90	39.21
Machine Protection System	Fast Protect - Latched		1.00	3.60
Machine Protection System	Fast Protect - Auto Reset		.50	1.80
Cooling Systems -	DI		.90	3.24
Cooling Systems -	DI	Pumps	1.00	3.60
Cooling Systems -	RFQ Chiller		2.00	7.19

Accelerator Physics

RF Systems

Ion Source

Instrumentation and Controls

- The Controls Group welcomed new member Jeff Bryan to the team of Diagnostics technicians this week

- Members of the ICALEPCS ’07 International Scientific Advisory Committee (ISAC) met at SNS this week to review plans and program for next year’s conference.

- Collaborators on the IRMIS accelerator control system configuration database project also met at SNS this week. The collaboration now includes SNS, APS, PSI and DESY.

- An example screen shot of a new web-based summary of MPS trips was made available at http://public.ornl.gov/diagnostics/mps/mpstrips.cfm and is shown below.

- # MPS Trip and First Hit Summaries for the past 24 Hours

- ## MPS Trips for 08/17/2006

Subsystem	Device Type	Input Trip Count	Total MPS Trip Count
Diag	BLM	2518	4233
LLRF	HPM	1078	1482
Mag	PS	21	95
Diag	ND	7	23
RF	Bnch	4	12

- ## MPS Trips for Last 7 Days

Subsystem	Device Type	Input Trip Count	Total MPS Trip Count
Diag	BLM	5888	9477
LLRF	HPM	2328	3409
Mag	PS	103	383
Diag	ND	93	138
RF	Bnch	7	28

- The main thrust of Diagnostics work this week was to prepare for re-installation of the LDRD laser system.

- A remote KVM Switch was installed in the FE Communications Room, permitting remote viewing of servers there. The second Cryo OPI (cryo-opi2) was upgraded to a new workstation this week.

- Testing of an automated alarm log saving program (FromAlarmLogToOracle.java) was completed this week, and records from alarm log files for March - August were loaded into Oracle. The IOC Alarm Logs report was updated as part of this work.
- Initial time-in of the CHMPS system was conducted and scope data collected for analysis. This is in preparation for adding a comparator circuit at the end of next week.

- Several devices on a local area control network for Conventional Facilities controls in the Ring area lost communications late last week. This resulted in loss of remote control of the Ring Power Supply DI water pumps and the RID air handler fan. This problem will be investigated on the maintenance day next Monday.

- The PPS control panel for the RF Test Facility is being fabricated. Field cabling and field equipment installation is progressing and is approximately 50% complete. PPS PLC programming is also progressing. The Linac PPS PLC-C was completely overhauled.

- 8 CCTV cameras have been installed and been provided with IP and MAC addresses. A CCTV camera in the HUR will be programmed during September. Design for 2 CCTV cameras for Target basement water rooms is also in progress.

- The CVS repository for XAL applications on the Physics Server have been migrated to Subversion with the desired layout. This server will be used internally to SNS.

- A bug in the Archive engine was repaired this week. If only the status/severity of a channel changed, but not the value, those samples were ignored under certain conditions. The Archive Viewer was updated to ignore “precision” when printing values configured with zero precision (since that is usually an error.)

SRF Facility

SRF Task Force

Survey and Alignment

Cryo Systems

Mechanical Systems

Electrical Systems

Power Supplies

- Repaired CCL_Mag:PS_DCV305, replaced the fuses on the +/- 15 VDC side
- Replaced SCL_Mag:PS_QD22, out of regulation error, unit was pulled to be repaired and placed in service as a spare
- Returned two SCL units to the Klystron gallery as spares

Instrument Systems

- Completed revision B of Beam Line 6's DC distribution diagram, parts list and voltage drop spreadsheet.
- Completed revision A of Beam Line 18's DC distribution parts list and revision B of the diagram and voltage drop calculator spreadsheet.
- Tested second micro motor for HE3 spin flipper laser optics control system.

Modulators/Choppers

- Rebuilt IGBT switch plate assembly
- Repaired LEBT and MEBT chopper units
- Received Rogowski probes for retrofitting HVCMs in September
- Measured performance characteristics of SNS, LANL, and SLAC IGBT driver cards.
- Hipotted spare MEBT electrode assembly. Pulsed same to 1800 V on the positive side before pulser failed and 1500 V on negative side before an overcurrent occurred. Decided to delay installation of structure until September to allow more time to characterize failure modes and clean structures.
- Spare LEBT chopper vendor indicated 1st article complete, expect 2nd unit in approx. 2 weeks.
- Received PCBs for Dynamic Fault Detection Chassis