

C-A MAINTENANCE, MODIFICATIONS, AND REPAIRS SCHEDULE

R. Zaharatos – January 24, 2002

Rev. 1

SCHEDULE SUMMARY

Program ends: 2400hrs January 24, 2002 - no later than 0200 January 25
Maintenance Begins: 0800hrs January 25, 2002
Maintenance Ends(est.): 1400hrs January 27, 2002

Machine Areas Access For :

AGS	Restricted Access - 0800hrs - 2000hrs Jan. 25
Booster	Restricted Access - 0800hrs. Jan. 25 - 1400hrs Jan. 25
SEB	Restricted Access - 0800hrs Jan. 25 - 1600hrs Jan. 26
ATR/U Line	Controlled Access - No access (Access Controls recertification, 2 days)
Linac	Controlled Access - access 0900hrs Jan. 25 - 1000hrs Jan. 25
RHIC	<u>Begin long shutdown</u> - Restricted Access all areas (includes W/X/Y lines)

PRIMARY JOBS

JOBS STATUS CODE: C complete IP in-process RS reschedule CAN cancelled

EQUIPMENT TESTING

AGS RING:

A5 Kicker
H20 Septum conditioning
H20 drive
Switchyard magnets
F5 Septum
F10 Ejector
Transverse Dampers(Ring F20, P.S. F18 Hse.)

BOOSTER

RF System
Backlegs

AGS RING

1. Gamma TR - restore configuration to protons.
2. Pump-out sumps
3. Equipment and Instrumentation set-up for SEB (8hrs)
4. Test and re-certification of exhaust fans

5. Check water flow for F5 and F10

AGS EXTERNAL EQUIPMENT

1. Westinghouse Motor/Generator - Detailed cleaning and brushes installation

ATR/U LINE

1. U Line Up/Dn - Access Controls recertification

BOOSTER RING

1. Survey of BAF penetration
2. LIPA feeder up-grade - Booster Main P.S. must be off.

RHIC

1. Begin cryo warm-up.
2. Set-up for magnet resistance tests (Coll. Elect. P.S. Grp/Ganetis)

SEB SWITCHYARD

1. CF367 - remove/rebuild/replace motor assembly. Repair video.

SEB

A TARGET

1. E951 - Replace existing instrumentation

C TARGET

1. C Target instrumentation - replace CW475, install new target lighting, and replace cabling

C LINE

1. E949 - Set-up and test instrumentation
2. E931 - Set-up and test instrumentation

LINAC

1. Remove and clean protons source (2days)
2. Replace SNS transformer in HEBT chamber

DETAILED SCHEDULE

24-25 Jan.

2400 Turn-off Linac proton source
2400-0200 Polarized Beam off. Linac beam stops closed.
RHIC beam off for long shutdown.
All RHIC P.S.'s to off
???? - 0600 Linac studies - Polarized Source beam to HEBT polarimeter

25 Jan.

0001-0200 Turn-off all Booster and AGS equipment. Make certain Booster Main P.S. is off and LOTO'd by 0430hrs

1. Begin Restricted Access LOTO of the Booster
HP Surveys of SEB
(HP will have instructions and schedule for all surveys including job specific, all to be completed no later than 0730hrs)
2. Restricted Access LOTO of AGS during which HP surveys the Booster

NOTE: Put in place the Supplemental LOTO for the testing of A5 Kicker in the AGS Ring. A5 will remain LOTO'd until start of the test period as approved by the Maint. Coordinator. Ops Coord. holds keys to be passed to MC. Hold keys for Transverse Dampers for MC.

3. HP survey of AGS

Prepare for RHIC access (HP surveys as required) All of RHIC to Restricted Access including W/X/Y Lines.

0500 LIPA feeder switchover from preferred to alternate.
(Booster Main P.S. must be secured before 0430hrs)

0600 Turn-off Linac Polarized Source
Begin RHIC P.S. loto(R. Zapasek) as part of preparation for the scheduled testing for ring shorts.(Ganetis)

0700 HP survey of ATR/U Line(Controlled Access)

0730 The following areas to Restricted Access by 0730hrs:
AGS, Booster, and SEB.

0800 Maintenance/SEB Changeover period begins

0900 Move SEB RS LOTO to BTA(Kevin Brown)

- 1400 Sweep and secure Booster.
- 1530 Powered testing of Booster Backlegs
- 2000 AGS Ring - If all jobs have been completed, secure for beam and remove LOTO.
- 2200 Confirmation that LIPA has switched back to normal feeder

0800 Jan. 25-1200 Jan 27

Westinghouse Motor/Generator maintenance
Equipment and instrumentation set-up for SEB operation

NOTE: Schedule for turn-on is dependent on the completion of the Westinghouse cleaning and completion of all of the instrumentation set-up particularly in the SEB Switchyard. It is expected we'll be ready for set-up with beam sometime on Sunday the 27th but no later than 0800 on Monday, Jan. 28.

C-A DEPARTMENT MAINTENANCE, REPAIR AND MODIFICATION PROGRAM
JOBS SCHEDULING REQUEST

GROUP: Access Controls – D. Meany (ext. 5329, BP 0361), N. Williams (ext. 5346, BP 0554)

<u>JOB#</u>	<u>ACCESS TO</u>	<u>EST. HRS.</u>	<u>JOB DESCRIPTION AND RESPONSIBLE PERSON</u>	<u>ADD'L. SUPPORT</u>	<u>HP SURVEY</u>
1	U Line Up/Dn	2 Days	Recertification of U up and U down expires 1/30/02		Yes
2	AGS/SEB	2 Days	Recertification of Chipmunks		Yes

C-A DEPARTMENT MAINTENANCE, REPAIR AND MODIFICATION PROGRAM
JOBS SCHEDULING REQUEST

GROUP: Beam Components & Instrumentation: D. Lehn (Ext. 4095 [4276], A. Curcio (Ext. 4659 [4270])

<u>JOB#</u>	<u>ACCESS TO</u>	<u>EST. HRS.</u>	<u>JOB DESCRIPTION AND RESPONSIBLE PERSON</u>	<u>ADD'L. SUPPORT</u>	<u>HP SURVEY</u>
1	AGS Ring	8 hrs.	H20 Septum – inspect/test repair motion control	HP - Survey	
2	AGS Ring	1 hr.	H20 Septum Video – Replace/Repair video camera/light	HP – Survey Joel Scott	
3	AGS Ring	1 hr.	CF011 – Replace/Repair Video camera/light	HP – Survey Joel Scott	
4	AGS Ring	10 min.	Splitters – Inspect oil levels	HP – Survey	
5	AGS Ring	10 min.	H20 Septum – Inspect oil levels	HP – Survey	
6	AGS TBH West	TBD	Splitters – Condition as necessary		
7	AGS H10 House	TBD	H20 Septum – Condition as necessary		
8	AGS F18 House	4 hrs.	Transverse Dampers – Adjust biases and retune as necessary		
9	AGS A10 House	1 hr.	Multiwires – MW125, MW166, A20 – Switch back to standard gain for HEP Running		
10	AGS – 911B	4 hrs.	Current Transformers – Setup gains for HEP running		
11	AGS Ring	4 hrs.	A20 Flying Wire – Install High Intensity / Low Gain PMT	HP – Survey	
12	AGS Ring	4 hrs.	G7 PUE Preamp – Install new version for testing	HP – Survey	
13	AGS Ring	4 hrs.	Ring Grounds – Inspect/Repair Hybrids as necessary	HP – Survey	
14	AGS Ring	4 hrs.	Check Water Flows @ F-5 & F-10, backflush if needed	HP- Survey	
15	AGS Ring	1 hr.	Inspect for future C15 Polarimeter Installation	HP - Survey	
16	AGS Ring	8 hrs.	A5 – Install new Loss Monitor and tie into BIS	HP - Survey	
1	Booster Ring	10 min.	C3 Inflector – Check oil level - Survey into place if necessary ?	HP – Survey Survey Group	
2	Booster 930UEB, 914	30 min.	Multiwires – MW006, MW060, LTB035, LTB099 & LTB106 - Switch back to standard gains for HEP running		
3	Booster 930 LEB	4 hrs.	C7 – Install new Loss Monitor and tie into FBI System	HP – Survey Linac Group	

1	Switchyard	1 hr.	CF157 – Replace/Repair video camera/light	HP – Survey
2	Switchyard	1 hr.	CF223 – Replace/Repair video camera/light	HP – Survey
3	Switchyard	8 hrs.	CF367 – Replace/Repair video camera/light - Remove/Rebuild/Replace motor assembly	HP – Survey EAG
4	Switchyard	1 hr.	AF238 – Replace/Repair video camera/light	HP – Survey
5	C Target	1 hr.	CF440 – Replace/Repair video camera/light	HP – Survey
6	C Target	8 hrs. * already in progress	C Target Instrumentation – Remove/Replace CW475 - Setup CE474 - Install new target video lamps - Remove old cable - Install new cabling for above	HP – Survey EAG Electricians Joel Scott
7	LESB 3 Fox Cave	TBD * already in progress	LESB 3 Separator – Replace feedthrough - Condition as necessary - Inspect as necessary	HP – Survey Riggers
8	LESB 2	TBD	LESB 2 Separator – Condition as necessary - Inspect as necessary	HP – Survey
9	C-Line	80 hrs. * already in progress	E949 – Setup and test instrumentation needed for HEP run	HP – Survey
10	C-Line	60 hrs. * already in progress	E931 – Setup and test instrumentation needed for HEP run	HP – Survey
11	A Target	40 hrs.	E951 – Remove existing EPM/SWIC/SEC cables - Install new current transformer including cable - Install new video setup for A Target flag	HP – Survey EAG Joel Scott
12	A-Line	TBD	E951 – Setup and test instrumentation needed for HEP run	HP - Survey
13	A- Line	1 hr.	AW290 - Replace leaking air regulator	HP - Survey

C-A DEPARTMENT MAINTENANCE, REPAIR AND MODIFICATION PROGRAM
JOBS SCHEDULING REQUEST

GROUP: Controls – Bill Venegas (ext. 3917, BP 7241), Brian Oerter (ext. 2799)

<u>JOB#</u>	<u>ACCESS TO</u>	<u>EST. HRS.</u>	<u>JOB DESCRIPTION AND RESPONSIBLE PERSON</u>	<u>ADD'L. SUPPORT</u>	<u>HP SURVEY</u>
1	AGS – K18	1 hr.	Replace chassis fan in K18 Gamma TR controller	None	None

C-A DEPARTMENT MAINTENANCE, REPAIR AND MODIFICATION PROGRAM
JOBS SCHEDULING REQUEST

GROUP: LINAC – B. Briscoe (ext. 5007, 5010, BP 4225) Vin LoDestro (ext. 5005, BP 7264)

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1	LINAC	2 Days	Remove and clean source	None	None
2	LINAC	3 hrs.	Replace cap bank Jennings Mod3	None	None
3	LINAC	4 hrs.	Repair SNS transformer in HEFT Chamber	Vac	None
4	LINAC	2 hrs.	Check Iggy in RFQ	None	None
5	LINAC	2 hrs.	Check voltage divider in RFQ	None	None
6	LINAC	8 hrs.	Check fans in 50 KV PS	None	None
7	LINAC	8 hrs.	Install circulators in driver carts	None	None
8	LINAC	8 hrs.	Check Buncher 2 RF System	None	None
9	930/930A BAF	4 hrs.	Install telephone line for BAF Fire Alarm System		

C-A DEPARTMENT MAINTENANCE, REPAIR AND MODIFICATION PROGRAM
JOBS SCHEDULING REQUEST

GROUP: Main Ring Power Supply Systems: M. Bannon (Ext. 7704) [4224], I. Marneris (Ext. 7027) [4255]

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1	West. House	3 days / 24 hours day	Thorough cleaning of Westinghouse Motor Generator		
2			F5 & F10 Testing and Heat Running		

C-A DEPARTMENT MAINTENANCE, REPAIR AND MODIFICATION PROGRAM
JOBS SCHEDULING REQUEST

GROUP: Maintenance Support: R. Zaharatos (Ext. 7205 [4281], J. Benante (Ext. 4498(1207)

<u>JOB#</u>	<u>ACCESS TO</u>	<u>EST. HRS.</u>	<u>JOB DESCRIPTION AND RESPONSIBLE PERSON</u>	<u>ADD'L. SUPPORT</u>	<u>HP SURVEY</u>
1	913 Ring	3 hrs.	Test and recertification of Ring exhaust fans	PE/AC Group	
2	913 Ring	8 hrs.	Pump out ring sumps	Water Sys. Grp	
3	RHIC Ring	8 hrs.	Repair fire alarm in Sect. 9Z1	Fire Alarm El.	
4	913 Fan Hses	8 hrs.	Complete the installation of sump alarms	FES	
5	913 AGS Ring	4 hrs.	Ring inspection of all systems		
6	942 Booster	2 hrs.	Ring inspection of all systems		
7	942 Booster	2 hrs.	Survey of BAF Penetration	Survey Group	
8	913 Ring		Move 3 Sextupoles from N. conj. Area to 919	Riggers	

C-A DEPARTMENT MAINTENANCE, REPAIR AND MODIFICATION PROGRAM
JOBS SCHEDULING REQUEST

GROUP: POWER DISTRIBUTION – T. Nehring (Ext. 5275) [4246]

<u>JOB#</u>	<u>ACCESS TO</u>	<u>EST. HRS.</u>	<u>JOB DESCRIPTION AND RESPONSIBLE PERSON</u>	<u>ADD’L. SUPPORT</u>	<u>HP SURVEY</u>
1	Entire Site	0500 – 2200 1/25/02	Take site off a preferred feeder put on alternate	Main Control to turnoff booster	
2	AGS – RF	1000 – 1200 1/25/02	Add oil to Xfmr with low oil level	RF Group	

C-A DEPARTMENT MAINTENANCE, REPAIR AND MODIFICATION PROGRAM
JOBS SCHEDULING REQUEST

GROUP: PULSED POWER: R. Zapasek (Ext. 2189) [4263], A. Zhang (Ext. 5369) [7248]

<u>JOB#</u>	<u>ACCESS TO</u>	<u>EST. HRS.</u>	<u>JOB DESCRIPTION AND RESPONSIBLE PERSON</u>	<u>ADD'L. SUPPORT</u>	<u>HP SURVEY</u>
1	AGS	2 hrs.	Gamma TR, restore connections		
2	AGS	4 hrs.	A5 Kicker, Replace tailbite tube \$ Test	ALT Loto	
CAN 3	AGS	8 hrs.	G10 Kicker, Move 4 PFN'S to no conjunction	Riggers	RWP

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JOBS SCHEDULING REQUEST

GROUP: RF GROUP – N. Laloudakis (Ext. 7177) [4261], A. Zaltsman (Ext. 2967)[4259]

<u>JOB#</u>	<u>ACCESS TO</u>	<u>EST. HRS.</u>	<u>JOB DESCRIPTION AND RESPONSIBLE PERSON</u>	<u>ADD'L. SUPPORT</u>	<u>HP SURVEY</u>
			AGS		
1	AGS Ring		Fix station K (Air Problem)		Yes
2	AGS Ring		Replace all air filters in pa's		Yes
3	AGS Ring		Retube feedback amps		Yes
4	914		RF Set-up for protons		

C-A DEPARTMENT MAINTENANCE, REPAIR AND MODIFICATION PROGRAM
JOBS SCHEDULING REQUEST

GROUP: Vacuum - S. Gill (Ext. 4627) [4164], M. Mapes (Ext. 2841)[4277]

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1	Booster	4-8 hrs.	Repair F-3 Sector valve in place		
2	930 UEB	2 hrs.	Check Booster ion gauge grid voltages		
3	AGS Ring	4 hrs.	Open C20 Polarimeter – Install Monitor		

C-A DEPARTMENT MAINTENANCE, REPAIR AND MODIFICATION PROGRAM
JOBS SCHEDULING REQUEST

GROUP: Water Systems: J. deBoer (Ext. 4668, BP [4250], L. Vogt (Ext. 4797, BP4273)
R. Grandinetti (Ext. 7186, BP [4239]

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1	LTB Line Bldg 930 and Bstr	32 mhrs.	Remove measurflo and surflow switches from DH1 thru DH5 magnets. Check primary flow switches, reconfigure hosing, fittings and perform flow checks.	None	Complete Survey of Area
2	Westinghouse Bldg. 911A	4 mhrs.	Repair small leak on Hydraulic Line in PIT	Siemens Group	
3	AGS Ring Bldg. 913	8 mhrs.	Drain AGS Sumps		
4	AGS Ring Bldg. 913	1 mhr.	Check flows for F-5 and F-10		
5	AGS Ring Bldg. 913	2 mhrs.	J-10 Beam Dump Bump, Check operating Pressure		
6	Booster Bldg. 194	3 mhrs.	Review D area for up coming BAF Modification		
7	Pump Room Bldg. 911A	2 mhrs.	Test run spare special ejection pump		