Accelerator Tentative Schedule 2008

- Tentative schedule for 2nd. half of 2008 released, **version 11/07**
- SANE starts installing on **5/28/08**
  - 10 ½ weeks installation
  - beam available in other halls on **7/26/08**
- SANE run starts on **8/11/08**
  - 13 days commissioning
  - 62 days data

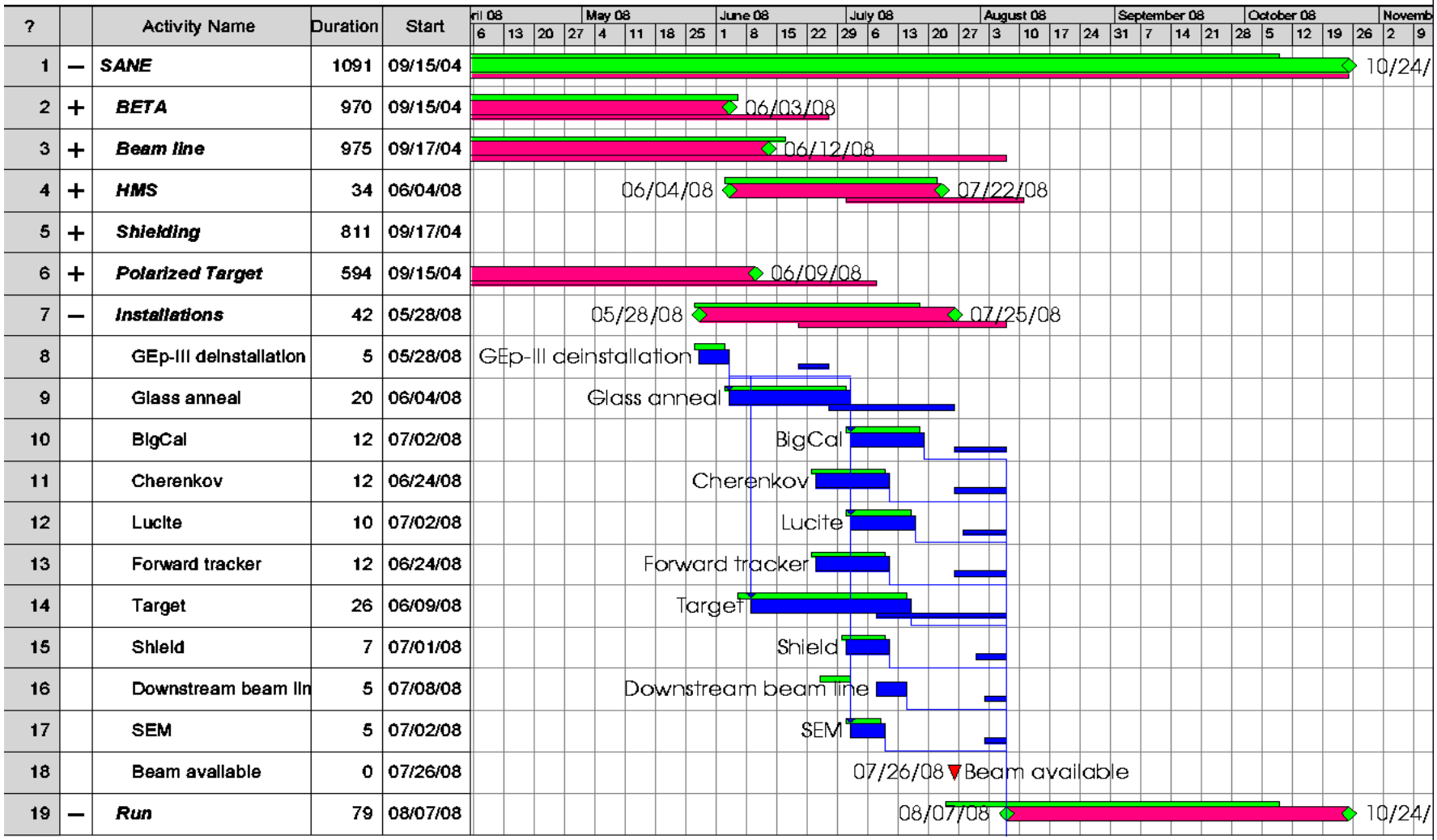
Beam Energy 2008

- Linac energy × 2 = 1167 MeV
- No problem at 2 or 4 passes: 100% longitudinal component is possible with other Halls at 5 passes
  - 2-pass energy = 2.4 GeV; 4-pass energy = 4.734 GeV
- 5-pass in three Halls
  - **5.9 GeV**, with **79%** longitudinal component in A and **C** (B gets 100%)
  - effective polarization at target ~ 65% assuming 82.5% at injector
  - FOM reduced by 1- $(65/75)^2$ = 25%
- Beam request stated that lower FOM should be compensated with extension
  - parallel field run at 5.9 GeV extended, but is not as useful as 80° run
  - we can reallocate 5.9 GeV partial times without impact to CEBAF
  - Issue: 4 days shorter run at 4.7 GeV. Solution: postpone pass change

Installation Schedule

Start: 09/15/04
Finish: 10/21/08
Today:11/08/07

Installations

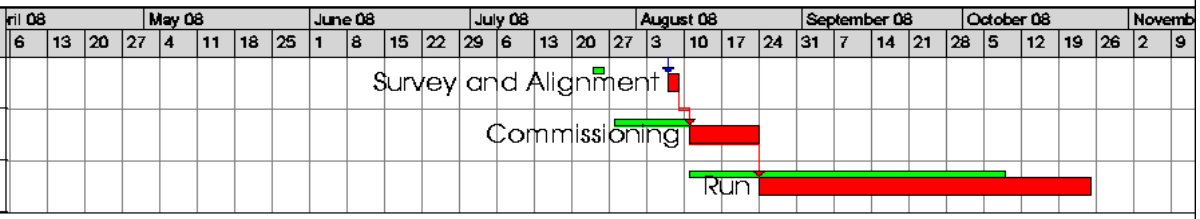


Installation Schedule

Start: 09/15/04
Finish: 10/21/08
Today:11/08/07

Installations

?		Activity Name	Duration	Start
20		Survey and Alignmen	2	08/07/08
21		Commissioning	13	08/11/08
22		Run	62	08/24/08



Project Start Finish Critical Activity Name Resource Names Event Start Name
Subproject Start Finish Non Crit. Activity Name Resource Names

Print Date 11/08/07

Run Plan

Start: 08/11/08
Finish: 10/25/08
Today:11/07/07

SANE Run

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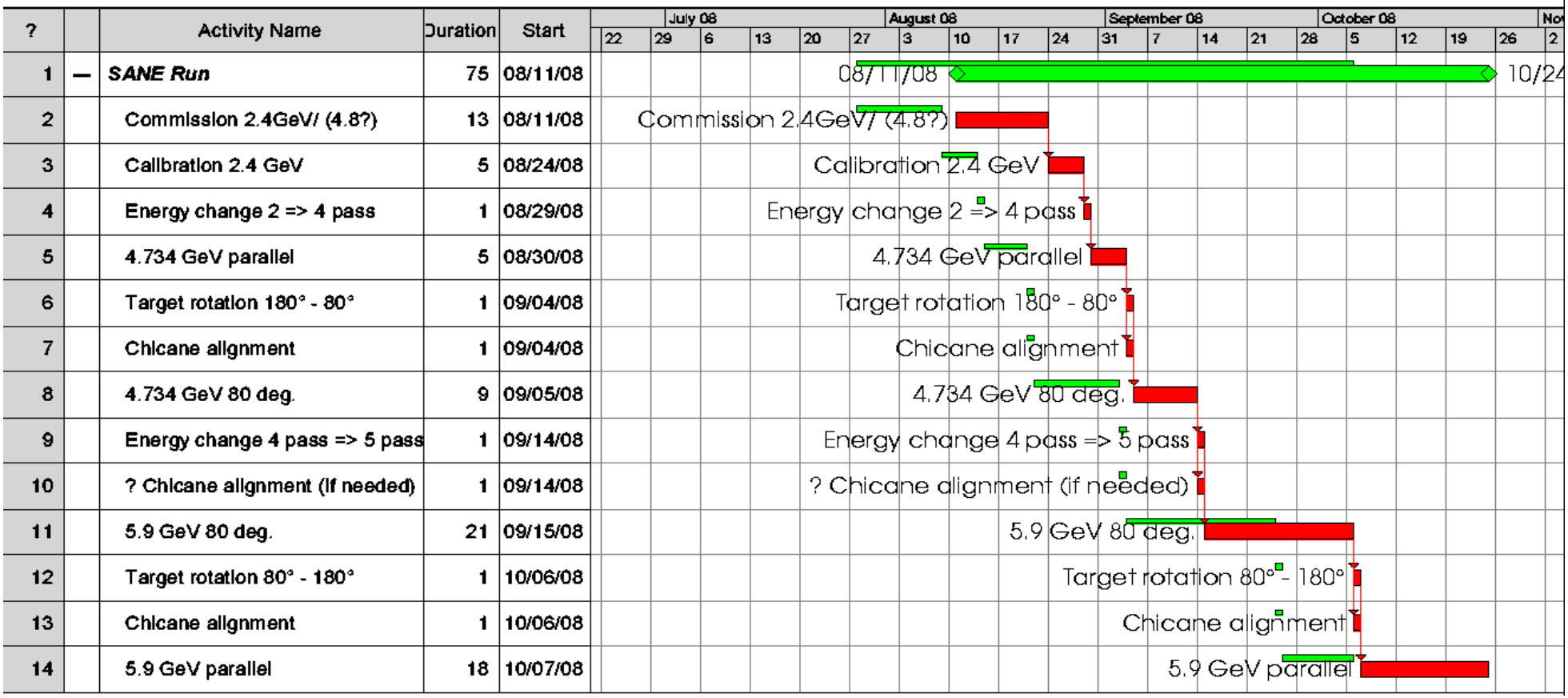

?		Activity Name	Duration	Start
1	—	***SANE Run***	75	08/11/08
2		Commission 2.4GeV/ (4.8?)	13	08/11/08
3		Calibration 2.4 GeV	5	08/24/08
4		Energy change 2 => 4 pass	1	08/29/08
5		4.734 GeV parallel	5	08/30/08
6		Target rotation 180° - 80°	1	09/04/08
7		Chicane alignment	1	09/04/08
8		4.734 GeV 80 deg.	9	09/05/08
9		Energy change 4 pass => 5 pass	1	09/14/08
10		? Chicane alignment (if needed)	1	09/14/08
11		5.9 GeV 80 deg.	21	09/15/08
12		Target rotation 80° - 180°	1	10/06/08
13		Chicane alignment	1	10/06/08
14		5.9 GeV parallel	18	10/07/08

Run Plan

	Calibration			Data				Moller		C runs		Commissi
	B OFF	B ||	B anti ||	4.7 ||	4.7 80˚	5.9 80˚	5.7 ||	B anti	||B 80˚	B anti	B 80˚	
Run plan calendar days	**1**	**2**	**2**	**6**	**12**	**21**	**10**					**12**
Run plan PAC hours	12	24	24	72	144	252	120	7	14	7	13	144
Proposal hours	12	24	24	70	130	200	100	7	14	7	13	144
Proposal Data + systematics				76	141	216	108	4	8	4	8	
Efficiency: (proposal+syst.) / run plan				1.05	0.98	0.86	0.90					
Tentative 11/07				**5**	**9**	**21**	**18**					
Tentative PAC hours				60	108	252	216					
Efficiency: (proposal+syst.) / tentative				1.26	1.30	0.86	0.50					

(From radbud06.sdc A_2, with hidden rows)

Run Plan

Days*	Setup Numbers from Radiation Budget Form	Special Requirements (including any variance from standard† beam conditions)
6	12	COMISSIONING - TARGET FIELD 0° OR 180° E = 2-pass**
2.5	1 - 2 - 3	Calibration - Target field OFF, ON 80°, ON 180° E = 2-pass
0.5		Energy change to 4-pass
3	4	Target field 180° E = 4-pass
0.5		Target rotation 180° to 80°
6	5	Target field 80° E = 4-pass
0.5		Energy change to 5-pass
10.5	6	Target field 80° E = 5-pass
0.5		Target rotation 80° to 180°
5	7	Target field 180° E = 5-pass
(21h)	8-9	Møller calibrations at setup Nos 4 to 7
(20h)	10-11	Calibration runs at setup Nos 4 to 7
		**Linac energy x 2 >= 1130 MeV in all cases

*Assume 100% efficiency for accelerator and experimental equipment operations. The sum of run days must be = the PAC-approved days.

▼Provide setup numbers as indicated on the Radiation Budget form.
†Consult Accelerator Liaison Physicist, H. Areti, for current beam capabilities.

SANE Beam Request Update

Status Summary:

PAC31 approved the jeopardy update to conditionally approved SANE (formerly E-03-109):

- Upgraded scientific rating from "A-" to "A"
- Approved 34 PAC days: 27 days of data and overhead plus 14 calendar days of commissioning time recommended by the TAC
- Hall C interprets this as 70 calendar days on the floor, with 12 days of commissioning

The TAC recommended a Readiness Review of SANE:

- The collaboration and Hall C organized the review, which was conducted on July 2, 2007
- The Summary of the review committee's report states:
  - "The readiness review committee has not found any obvious problem that would jeopardize the installation and running of the experiment"
  - "The committee has emphasized certain aspects of the preparations and gave recommendations".

  A collaboration planning meeting was held on 8/24/2007 to address the recommendations.

The Accelerator Schedule for January-June 2008 shows SANE installation starting on 5/27/2008. The installation is expected to last for up to 10 weeks.

SANE Beam Request Update (II)

Beam Request:

We have updated our beam request (submitted by Seonho on 9/13/07) as follows:

- Updated Commissioning and Run Schedule
- Three beam energies:
  - 2-pass near 2.4 GeV - no polarization required
  - 4-pass near 4.8 GeV - longitudinal polarization at target >= 75%
  - 5-pass near 6.0 GeV (>= 5.6 GeV) - longitudinal polarization at target >= 75%

  75% polarization at target (polarization at the injector times the spin rotation into the Hall) is required to attain SANE's physics goals. Reduced FOM due to potentially lower polarization should be compensated with matching data taking time extension.

- Proposed Run Plan time line for 70 days on the floor, starting on 7/28/2007 after nine weeks of installation. The starting date may be up to a week later, as allowed in the Hall C installation period.

- Updated radiation budget - materials have been submitted to P. Degtiarenko, including changes due to minor modifications to target chamber windows and updated run times