

## MEMORANDUM

Date: October 1, 2014  
To: Distribution  
From: Rolf Ent and Arne Freyberger for the Nuclear Physics Experiment  
Scheduling Committee  
Subject: Accelerator Schedule through December 22, 2015

### **Schedule**

Attached is the accelerator operations schedule through December 22, 2015 at 8 AM. It has also been posted at [http://www.jlab.org/exp\\_prog/experiment\\_schedule/](http://www.jlab.org/exp_prog/experiment_schedule/). The operations schedule is subject to the fiscal year 2014 and 2015 funding realities. This schedule covers the first experiment run period of the “12 GeV Era” to be executed in parallel with the Accelerator Commissioning and Development necessary to bring the machine to its design performance to meet the 12 GeV JLab upgrade project goals. The schedule has been reviewed and approved by the Director.

The Jefferson Lab Nuclear Physics Experiment Scheduling Committee developed the schedule. Committee members are: Volker Burkert, Eugene Chudakov, Rolf Ent (Co-Chair), Arne Freyberger (Co-Chair), Javier Gomez, Cynthia Keppel, Robert McKeown, Fulvia Pilat, Matt Poelker, Patrizia Rossi and Mike Spata.

## Supplementary Information

### Footnotes to the Schedule

We summarize here the detailed footnotes to the schedule. They appear in the rightmost column of the schedule listing, and are listed at the earliest date in the schedule when they are applicable but they extend for a considerable time after they first appear. All of the footnotes are repeated here for clarity and information.

1. Priority column. Leftmost entry has the highest priority while the rightmost entry has the lowest. If the first entry is “**Acc**”, Accelerator commissioning and development has higher priority than any experiment taking place in the halls. If “**Acc**” is the only entry, no hall is expected to receive beam during that time.
2. The longitudinal beam polarization is maximized for Hall A because it is the only hall that requires it.
3. Hall B is expected to take beam only during evenings and weekends to minimize interfering with the 12 GeV upgrade of Hall B.
4. Possibility of having a Physics only run period depends on the allocated fiscal budget.

### Additional Schedule Information

On the schedule, daily status changes take place at the end of the owl shift (~ 7 AM) unless otherwise indicated.

### The Meaning of Priority on the Accelerator Schedule

For those entries that either have an “**Acc**” entry alone or as the leftmost entry in a list, this indicates that the program is driven by the Accelerator Commissioning and Development part of the 12 GeV project.

Science output drives the program for those entries with a hall at the leftmost position. Generally, the assignment of priority to a hall means that the identified hall will have the primary voice in decisions on beam quality and/or changes in operating conditions. We will do our best to deliver the beam conditions identified in the schedule for the priority hall. It will not, however, mean that the priority hall can demand changes in beam energy that would affect planned running in the other halls without the consent of the other halls. Of course, final authority for decisions about unplanned changes in machine operation will rest with the laboratory management.

The operation of more than one hall at Jefferson Lab substantively complicates the interaction between the experimenters and the accelerator operations group. It is in the interests of the entire physics community that the laboratory be as productive as possible.

Therefore, we require that the run coordinators for all operating halls do their best to respond flexibly to the needs of experiments running in other halls. The run coordinators for all experiments either receiving beam or scheduled to receive beam that day should meet with the Program Deputy at 7:45 AM in the MCC on weekdays and at the Program Deputy's discretion on weekends.

To provide some guidance and order to the process of resolving the differing requirements of the running halls, we have assigned a "priority hall" for each day beam delivery has been scheduled. We outline here the meaning of priority and its effect on accelerator operations.

**The priority hall has the right to:**

- require a re-tune of the accelerator to take place immediately when beam quality is not acceptable
- insist that energy changes occur as scheduled
- obtain hall access as desired
- request that beam delivery interruptions for experiment-related operations which temporarily block normal beam delivery to all other halls take place as requested. Mott measurements of the beam polarization or pulsed operation for current monitor calibrations represent examples of such interruptions. Interruptions of this type require, at a minimum, 24 hours advance notification and coordination with the Program Deputy and the other halls.

These interruptions shall be limited by a sum rule - the total time lost to the non-priority hall(s) due to such requests shall not exceed 2.5 hours in any 24-hour period. It is, of course, highly preferred that these measurements be scheduled at the morning meeting of the run coordinators whenever possible, and coordinated between halls whenever possible.

When the priority hall has requested a re-tune, if the re-tune degrades a previously acceptable beam for one of the other, lower priority running halls, then the re-tune shall continue until the beam is acceptable to both the priority hall and the other running halls that had acceptable beam at the time the re-tune began.

**Non-priority halls can:**

- require that a retune of the accelerator take place within 2.5 hours of the desired time (it will nominally occur at the earliest convenient break in the priority hall's schedule)
- require access to the hall within 1 hour of the desired time (again, it will nominally occur at the earliest convenient break in the priority hall's schedule)
- request that beam delivery interruptions for experiment-related operations which temporarily block normal beam delivery to all other halls occur within 2.5 hours of the desired time. Interruptions of this type require, at a minimum, 24 hours advance notification and coordination with the Program Deputy and the other halls.

The ability of non-priority halls to request retunes and accesses shall be limited by a sum rule - the total time lost to the priority hall due to such requests shall not exceed 2.5 hours in any 24-hour period. (To facilitate more extended tuning associated with complex beam delivery, with the agreement of the run coordinators for all operating halls, the sum rule may be applied over a period as long as three days, so long as the average impact is less than 2.5 hours/day.) In the event that two non-priority halls are running, the 2.5 hours shall be split evenly between them in the absence of mutual agreement on a different split.

**All Halls:**

Can negotiate with other halls, and with the Accelerator and Physics Division for changes in scheduled energy changes (either direction).

**Initial Tune-up of New Beams:**

Normally one and one half shifts (12 hours) is set aside for tune-up whenever a new beam setup is being tuned (for unusual beam setups more time may be scheduled explicitly for tuning at the discretion of the scheduling committee). It is understood that beam tune-ups shall *always* be done in the order that the accelerator operations group believes will minimize the *total* time needed to tune *all* scheduled beams (i.e., the "priority hall" beam is not necessarily tuned first). In the event that obtaining the new beam setup requires more than the scheduled time, the Accelerator Program Deputy is authorized to spend up to one additional shift of tuning in an effort to deliver all scheduled beams instead of just the "priority hall" beam.

**Maintenance/Development.** Accelerator Division may request up to sixteen hours per week. Users will be consulted in deciding how these sixteen hours per week are placed on the calendar, i.e. five shorter or three long blocks of time.

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I	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
2	Date	Weekday	(GeV/pass)/Pol	Operations Status	Hall A Experiment	Hall A GeV/μA/Pol	Hall B Experiment	Hall B GeV/μA/Pol	Hall C Experiment	Hall C GeV/μA/Pol	Hall D Experiment	Hall D GeV/μA/Pol	Priority Hall	PRB Hall	Pass	Notes
5131	10/01/14	Wednesday	1.8GeV/P<55%>	Restore								10/50/-	Acc/D		-/-/7:55	Note (1): Highest priority is leftmost entry Lowest priority is rightmost entry  Accelerator Development has priority over Physics output if Acc is leftmost entry
5132	10/02/14	Thursday	1.8GeV/P<55%>	Restore								10/50/-	Acc/D		-/-/7:55	
5133	10/03/14	Friday	1.8GeV/P<55%>	Restore								10/50/-	Acc/D		-/-/7:55	
5134	10/04/14	Saturday	1.8GeV/P<55%>	Restore								10/50/-	Acc/D		-/-/7:55	
5135	10/05/14	Sunday	1.8GeV/P<55%>	Restore								10/50/-	Acc/D		-/-/7:55	
5136	10/06/14	Monday	1.8GeV/P<55%>	Restore								10/50/-	Acc/D		-/-/7:55	
5137	10/07/14	Tuesday	1.8GeV/P<55%>	Restore								10/50/-	Acc/D		-/-/7:55	
5138	10/08/14	Wednesday	1.8GeV/P<55%>	Restore								10/50/-	Acc/D		-/-/7:55	
5139	10/09/14	Thursday	1.8GeV/P<55%>	Restore								10/50/-	Acc/D		-/-/7:55	
5140	10/10/14	Friday	1.8GeV/P<55%>	Restore								10/50/-	Acc/D		-/-/7:55	
5141	10/11/14	Saturday	1.8GeV/P<55%>	Restore								10/50/-	Acc/D		-/-/7:55	
5142	10/12/14	Sunday	1.8GeV/P<55%>	Restore								10/50/-	Acc/D		-/-/7:55	
5143	10/13/14	Monday	1.8GeV/P<55%>	Restore								10/50/-	Acc/D		-/-/7:55	
5144	10/14/14	Tuesday	1.8GeV/P<55%>	Restore								10/50/-	Acc/D		-/-/7:55	
5145	10/15/14	Wednesday	1.8GeV/P<55%>	Restore								10/50/-	Acc/D		-/-/7:55	
5146	10/16/14	Thursday	1.8GeV/P<55%>	Restore								10/50/-	Acc/D		-/-/7:55	
5147	10/17/14	Friday	1.8GeV/P<55%>	Acc Comm								10/50/-	Acc/D		-/-/7:55	
5148	10/18/14	Saturday	1.8GeV/P<55%>	Acc Comm								10/50/-	Acc/D		-/-/7:55	
5149	10/19/14	Sunday	1.8GeV/P<55%>	Acc Comm								10/50/-	Acc/D		-/-/7:55	
5150	10/20/14	Monday	1.8GeV/P<55%>	Acc Comm								10/50/-	Acc/D		-/-/7:55	
5151	10/21/14	Tuesday	1.8GeV/P<55%>	Comm 4d1 pass	4-pass comm	7.3/50/P<55%>	1-pass comm	1.8/200/-				10/50/-	Acc/A/B		4/1/-/-	Note (2): Maximum longitudinal polarization
5152	10/22/14	Wednesday	1.8GeV/P<55%>	Comm 4d1 pass	4-pass comm	7.3/50/P<55%>	1-pass comm	1.8/200/-				10/50/-	Acc/A/B		4/1/-/-	
5153	10/23/14	Thursday	1.8GeV/P<55%>	Comm 4d1 pass	4-pass comm	7.3/50/P<55%>	1-pass comm	1.8/200/-				10/50/-	Acc/A/B		4/1/-/-	Note (3): Hall B beam on evenings and weekends
5154	10/24/14	Friday	1.8GeV/P<55%>	Comm 4d1 pass	4-pass comm	7.3/50/P<55%>	1-pass comm	1.8/200/-				10/50/-	Acc/A/B		4/1/-/-	
5155	10/25/14	Saturday	1.8GeV/P<55%>	Comm 4d1 pass	4-pass comm	7.3/50/P<55%>	1-pass comm	1.8/200/-				10/50/-	Acc/A/B		4/1/-/-	
5156	10/26/14	Sunday	1.8GeV/P<55%>	Comm 4d1 pass	4-pass comm	7.3/50/P<55%>	1-pass comm	1.8/200/-				10/50/-	Acc/A/B		4/1/-/-	
5157	10/27/14	Monday	1.8GeV/P<55%>	Comm 4d1 pass	4-pass comm	7.3/50/P<55%>	1-pass comm	1.8/200/-				10/200/-	Acc/A/B		4/1/-/-	
5158	10/28/14	Tuesday	1.8GeV/P<55%>	12 GeV milestone	DVCS/GMP	7.3/50/P<55%>	HPS beam cond.	1.8/200/-				10/200/-	Acc/A/D/B		4/1/7:55	
5159	10/29/14	Wednesday	1.8GeV/P<55%>	12 GeV milestone	DVCS/GMP	7.3/50/P<55%>	HPS beam cond.	1.8/200/-				10/200/-	Acc/A/D/B		4/1/7:55	
5160	10/30/14	Thursday	1.8GeV/P<55%>	12 GeV milestone	DVCS/GMP	7.3/50/P<55%>	HPS beam cond.	1.8/200/-				10/200/-	Acc/A/D/B		4/1/7:55	
5161	10/31/14	Friday	1.8GeV/P<55%>	12 GeV milestone	DVCS/GMP	7.3/50/P<55%>	HPS beam cond.	1.8/200/-				10/200/-	Acc/A/D/B		4/1/7:55	
5162	11/01/14	Saturday	1.8GeV/P<55%>	12 GeV milestone	DVCS/GMP	7.3/50/P<55%>	HPS beam cond.	1.8/200/-				10/200/-	Acc/A/D/B		4/1/7:55	
5163	11/02/14	Sunday	1.8GeV/P<55%>	12 GeV milestone	DVCS/GMP	7.3/50/P<55%>	HPS beam cond.	1.8/200/-				10/200/-	Acc/A/D/B		4/1/7:55	
5164	11/03/14	Monday	1.8GeV/P<55%>	12 GeV milestone	DVCS/GMP	7.3/50/P<55%>	HPS beam cond.	1.8/200/-				10/200/-	Acc/A/D/B		4/1/7:55	
5165	11/04/14	Tuesday	1.8GeV/P<55%>	12 GeV milestone	DVCS/GMP	7.3/50/P<55%>	HPS beam cond.	1.8/200/-				10/200/-	Acc/A/D/B		4/1/7:55	
5166	11/05/14	Wednesday	1.8GeV/P<55%>	12 GeV milestone	DVCS/GMP	7.3/50/P<55%>	HPS beam cond.	1.8/200/-				10/200/-	Acc/A/D/B		4/1/7:55	
5167	11/06/14	Thursday	1.8GeV/P<55%>	12 GeV milestone	DVCS/GMP	7.3/50/P<55%>	HPS beam cond.	1.8/200/-				10/200/-	Acc/A/D/B		4/1/7:55	
5168	11/07/14	Friday	1.8GeV/P<55%>	12 GeV milestone	DVCS/GMP	7.3/50/P<55%>	HPS beam cond.	1.8/200/-				10/200/-	Acc/A/D/B		4/1/7:55	
5169	11/08/14	Saturday	1.8GeV/P<55%>	12 GeV milestone	DVCS/GMP	7.3/50/P<55%>	HPS beam cond.	1.8/200/-				10/200/-	Acc/A/D/B		4/1/7:55	
5170	11/09/14	Sunday	1.8GeV/P<55%>	12 GeV milestone	DVCS/GMP	7.3/50/P<55%>	HPS beam cond.	1.8/200/-				10/200/-	Acc/A/D/B		4/1/7:55	
5171	11/10/14	Monday	1.8GeV/P<55%>	12 GeV milestone	DVCS/GMP	7.3/50/P<55%>	HPS beam cond.	1.8/200/-				10/200/-	Acc/A/D/B		4/1/7:55	
5172	11/11/14	Tuesday	1.8GeV/P<55%>	12 GeV milestone	DVCS/GMP	7.3/50/P<55%>	HPS beam cond.	1.8/200/-				10/200/-	Acc/A/D/B		4/1/7:55	
5173	11/12/14	Wednesday	1.8GeV/P<55%>	12 GeV milestone	DVCS/GMP	7.3/50/P<55%>	HPS beam cond.	1.8/200/-				10/200/-	Acc/A/D/B		4/1/7:55	
5174	11/13/14	Thursday	1.8GeV/P<55%>	12 GeV milestone	DVCS/GMP	7.3/50/P<55%>	HPS beam cond.	1.8/200/-				10/200/-	Acc/A/D/B		4/1/7:55	
5175	11/14/14	Friday	1.8GeV/P<55%>	Comm 3k2 pass	DVCS/GMP	7.3/50/P<55%>	HPS beam cond.	1.8/200/-				10/200/-	Acc/A/D/B		4/1/7:55	
5176	11/15/14	Saturday	1.8GeV/P<55%>	Comm 3k2 pass	DVCS/GMP	7.3/50/P<55%>	HPS beam cond.	1.8/200/-				10/200/-	Acc/A/D/B		4/1/7:55	
5177	11/16/14	Sunday	1.8GeV/P<55%>	Comm 3k2 pass	DVCS/GMP	7.3/50/P<55%>	HPS beam cond.	1.8/200/-				10/200/-	Acc/A/D/B		4/1/7:55	
5178	11/17/14	Monday	1.8GeV/P<55%>	Comm 3k2 pass	DVCS/GMP	7.3/50/P<55%>	HPS beam cond.	1.8/200/-				10/200/-	Acc/A/D/B		4/1/7:55	
5179	11/18/14	Tuesday	1.8GeV/P<55%>	Comm 3k2 pass	DVCS/GMP	7.3/50/P<55%>	HPS beam cond.	1.8/200/-				10/200/-	Acc/A/D/B		4/1/7:55	
5180	11/19/14	Wednesday	1.8GeV/P<55%>	Comm 3k2 pass	DVCS/GMP	7.3/50/P<55%>	HPS beam cond.	1.8/200/-				10/200/-	Acc/A/D/B		4/1/7:55	
5181	11/20/14	Thursday	1.8GeV/P<55%>	Comm 3k2 pass	DVCS/GMP	7.3/50/P<55%>	HPS beam cond.	1.8/200/-				10/200/-	Acc/A/D/B		4/1/7:55	
5182	11/21/14	Friday	1.8GeV/P<55%>	Comm 3k2 pass	DVCS/GMP	7.3/50/P<55%>	HPS beam cond.	1.8/200/-				10/200/-	Acc/A/D/B		4/1/7:55	
5183	11/22/14	Saturday	1.8GeV/P<55%>	Comm 3k2 pass	DVCS/GMP	7.3/50/P<55%>	HPS beam cond.	1.8/200/-				10/200/-	Acc/A/D/B		4/1/7:55	
5184	11/23/14	Sunday	1.8GeV/P<55%>	Comm 3k2 pass	DVCS/GMP	7.3/50/P<55%>	HPS beam cond.	1.8/200/-				10/200/-	Acc/A/D/B		4/1/7:55	
5185	11/24/14	Monday	1.8GeV/P<55%>	Comm 3k2 pass	DVCS/GMP	7.3/50/P<55%>	HPS beam cond.	1.8/200/-				10/200/-	Acc/A/D/B		4/1/7:55	
5186	11/25/14	Tuesday	1.8GeV/P<55%>	Comm 3k2 pass	DVCS/GMP	7.3/50/P<55%>	HPS beam cond.	1.8/200/-				10/200/-	Acc/A/D/B		4/1/7:55	
5187	11/26/14	Wednesday	Down	Down												
5188	11/27/14	Thursday	Down	Down												
5189	11/28/14	Friday	Down	Down												
5190	11/29/14	Saturday	Down	Down												
5191	11/30/14	Sunday	Down	Down												
5192	12/01/14	Monday	1.8GeV/P<55%>	Restore												
5193	12/02/14	Tuesday	1.8GeV/P<55%>	Comm 3k2 pass	DVCS/GMP	7.3/50/P<55%>	HPS Eng. run	1.8/200/-				10/200/-	Acc		4/1/7:55	
5194	12/03/14	Wednesday	1.8GeV/P<55%>	Comm 3k2 pass	DVCS/GMP	7.3/50/P<55%>	HPS Eng. run	1.8/200/-				10/200/-	Acc/B/A/D		4/1/7:55	
5195	12/04/14	Thursday	1.8GeV/P<55%>	Comm 3k2 pass	DVCS/GMP	7.3/50/P<55%>	HPS Eng. run	1.8/200/-				10/200/-	Acc/B/A/D		4/1/7:55	
5196	12/05/14	Friday	1.8GeV/P<55%>	Comm 3k2 pass	DVCS/GMP	7.3/50/P<55%>	HPS Eng. run	1.8/200/-				10/200/-	Acc/B/A/D		4/1/7:55	
5197	12/06/14	Saturday	1.8GeV/P<55%>	Comm 3k2 pass	DVCS/GMP	7.3/50/P<55%>	HPS Eng. run	1.8/200/-				10/200/-	Acc/B/A/D		4/1/7:55	
5198	12/07/14	Sunday	1.8GeV/P<55%>	Comm 3k2 pass	DVCS/GMP	7.3/50/P<55%>	HPS Eng. run	1.8/200/-				10/200/-	Acc/B/A/D		4/1/7:55	
5199	12/08/14	Monday	1.8GeV/P<55%>	Comm 3k2 pass	DVCS/GMP	7.3/50/P<55%>	HPS Eng. run	1.8/200/-				10/200/-	Acc/B/A/D		4/1/7:55	
5200	12/09/14	Tuesday	1.8GeV/P<55%>	Comm 3k2 pass	DVCS/GMP	7.3/50/P<55%>	HPS Eng. run	1.8/200/-				10/200/-	Acc/B/A/D		4/1/7:55	
5201	12/10/14	Wednesday	1.8GeV/P<55%>	Comm 3k2 pass	DVCS/GMP	7.3/50/P<55%>	HPS Eng. run	1.8/200/-				10/200/-	Acc/B/A/D		4/1/7:55	
5202	12/11/14	Thursday	1.8GeV/P<55%>	Comm 3k2 pass	DVCS/GMP	7.3/50/P<55%>	HPS Eng. run	1.8/200/-				10/200/-	Acc/B/A/D		4/1/7:55	
5203	12/12/14	Friday	1.8GeV/2GeV	Acc. Dev.									Acc			
5204	12/13/14	Saturday	1.8GeV/2GeV	Acc												











