Retreat Summary: Operations Session

Vincent Schoefer
Gregory Marr
RHIC Operations Specialists

Operational notes from other sessions

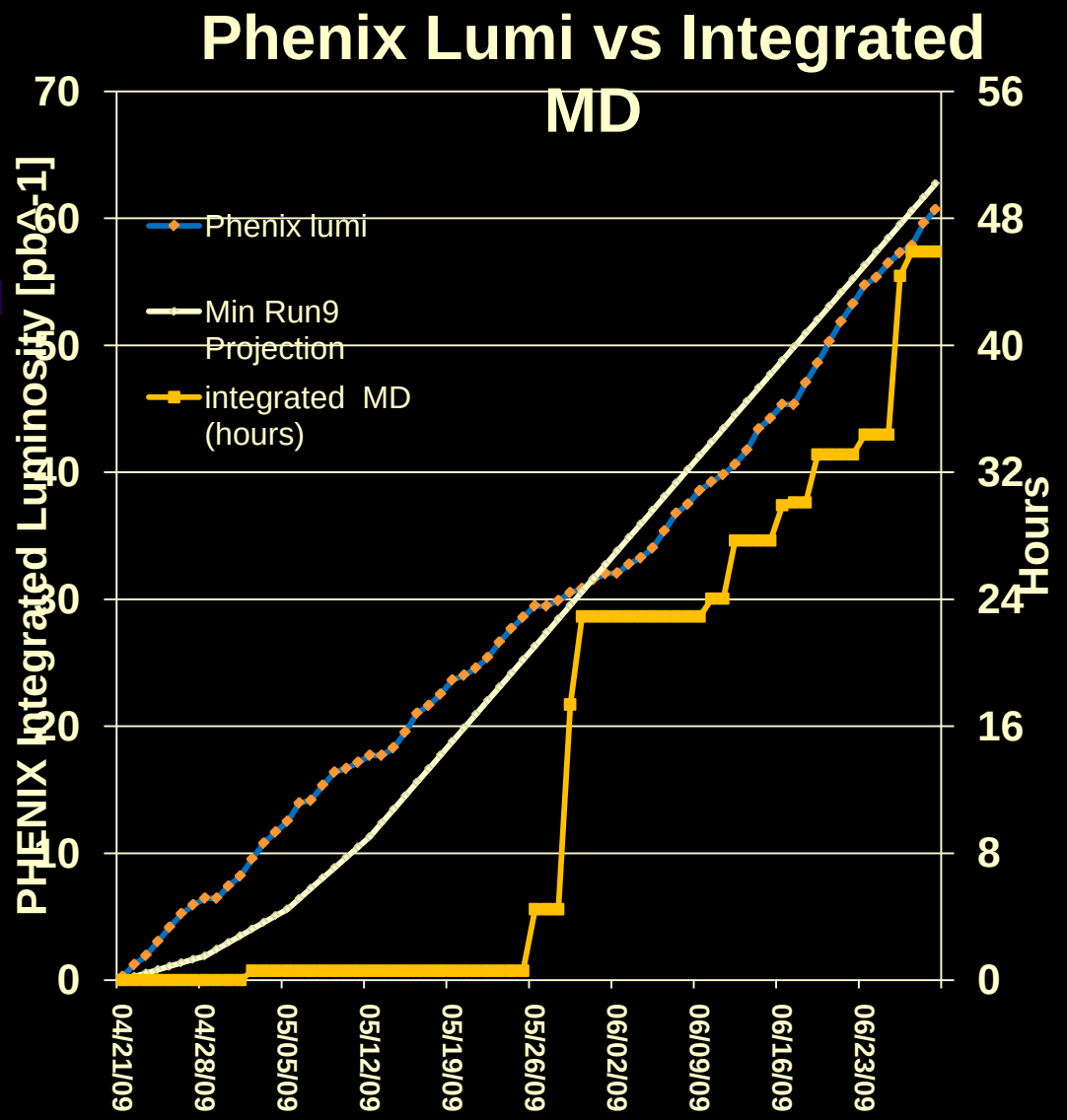
- No one can be trusted to stay within prescribed limits.
  - How many 7-slide talks were there? (Hint: <10%)
  - Explains why Operations prefers engineered controls over administrative.
    - “If I’m not supposed to turn it on that way, why am I allowed to?”
- STAR: end-of-store efficiency needs attention.
- PHENIX: longer APEX sessions less frequently?
- Feedback ramps: Do we want to make it a truly operational system or not?

Operational notes from other sessions

- RMMPS: Plan is to relocate current limiting key, which has been a hindrance to expedient tunnel access.
- Cryo: Regarding ODH 0 vs. 1 classifications, shutdown work (valve boxes) is geared toward easing limitations to service building access. Tunnel access requirements will not change soon.
- RF: L10 cavity replacement means 11 AGS cavities.
  - 1 h=4; 1 h=8; 9 h=12
  - One less h=12 cavity to spare…
- Access Controls: Intent is to repair the optomux system, which impaired MCR's troubleshooting of injector security trips.

Operations statistics (PFI)

- Just over 80% availability for the run (met target).
- RHIC Power Supplies, Quench Detection #1, #2 in failure hours.
- Access Controls and Vacuum most improved compared to last run.



Maintenance review (PWS)

- Maintenance day work load is increased due to unfinished shutdown work.
- Improvements continue in planning. Vigilance with regard to Job Request system has reduced “stealth” maintenance work which is a hindrance to beam restoration, etc.
- More realistic time estimates resulted from improved scheduling and allowance for a setup period.
- Integrated luminosity was not appreciably different in weeks with or without maintenance.

Operations group in the future (FCP)

- Construction work continues on the new Control Room facility.
- 1st floor occupancy in 2009.
- Operations staff will be integrated in one room, a trend similar to other comparable facilities. Improved communication and collaboration between shift staff is a primary motivation.
- Some discussion ensued regarding safety aspects of relocating or consolidating staff. Assurances were made that the final integration plan has yet to be determined.

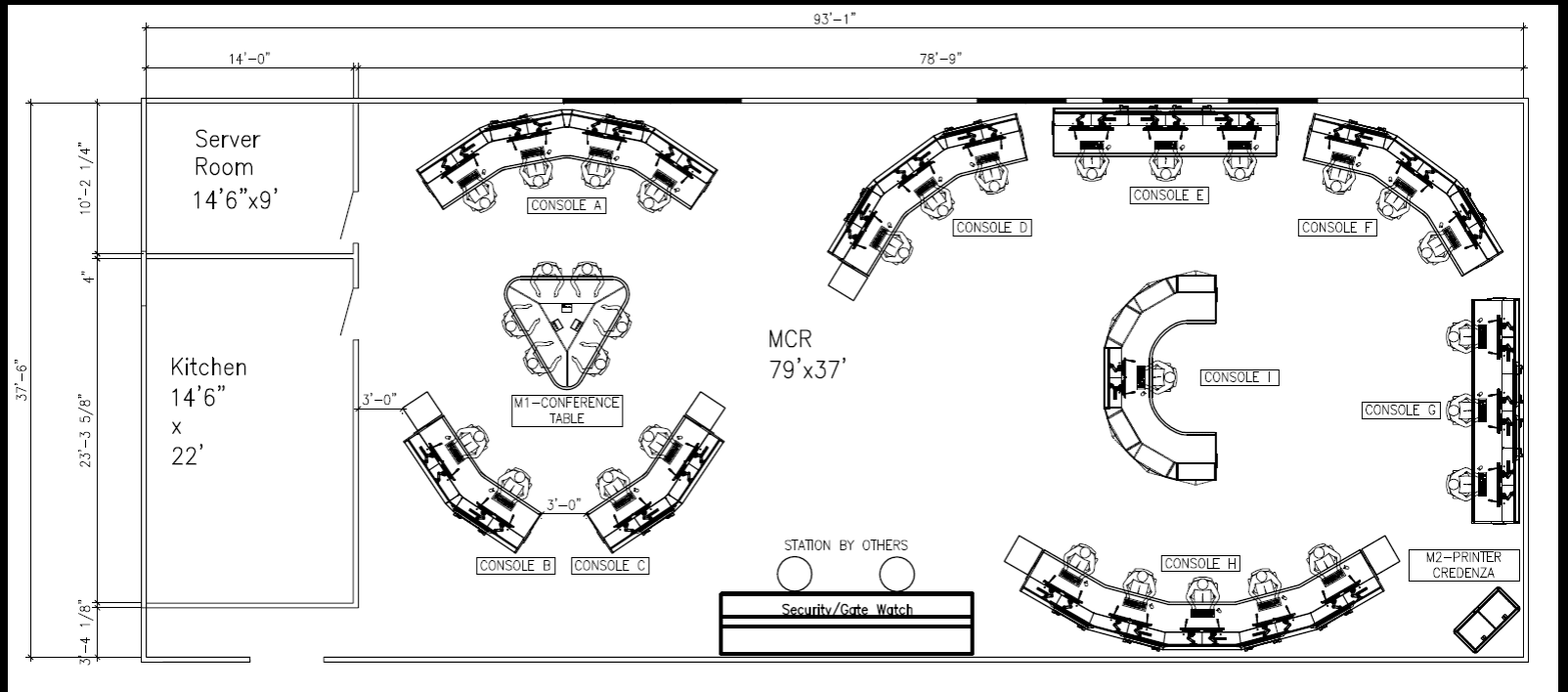
- Consolidation shift operations (MCR, MMPS, Cryogenics, CAS)

	Present	Interim	After integration
MCR	3	3	3
MMPS	1	1	0 ?
Cryo	2	1	1
CAS	2	2	2

- Move shift personnel to MCR for **routine operations**:
  Improve efficiency and communications
  Reduce overall personnel on shift
- **Cryogenics** and **MMPS control rooms** will remain in place for **specialized operations** (cool-down, warm-up, Siemens start-up, specialized trouble-shooting, etc.)

MCR Upgrades (TCS)

•Bigger, better, faster, quieter, and with a window upstairs (we appreciate your sympathy for no window downstairs).

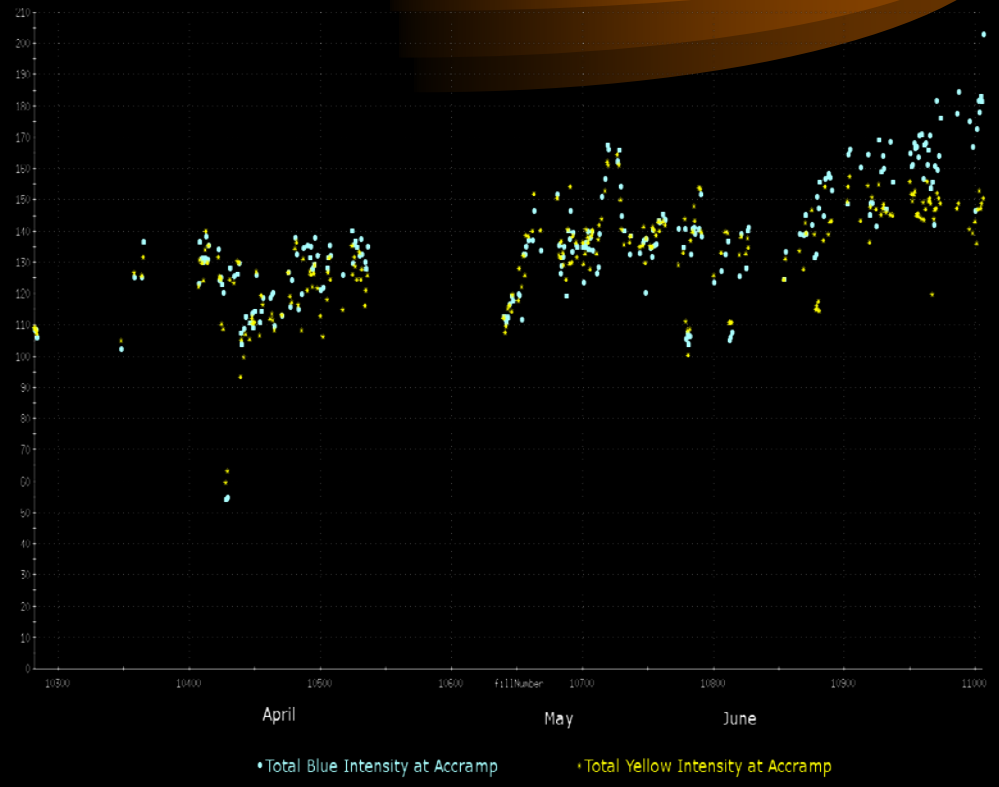


MCR Upgrades

- Effort to reduce the analog footprint in the new MCR.
- Discussions with Controls and Network personnel continue with regards our new needs (MUX, video network, comfort displays, etc.).
- Many issues can begin to be addressed now and will benefit Operations in our present surroundings as well (e.g. alarm display/management).

Operator's perspective (IMCB)

- Although communication improved in some areas (e.g. polarimeters), it remains an overarching issue.
- Little difficulties in our most-used systems (e.g. RhicInjection or PASS) cause greater problems than larger deficiencies in seldom used applications.
- Controls-level action please follow-up from other groups.

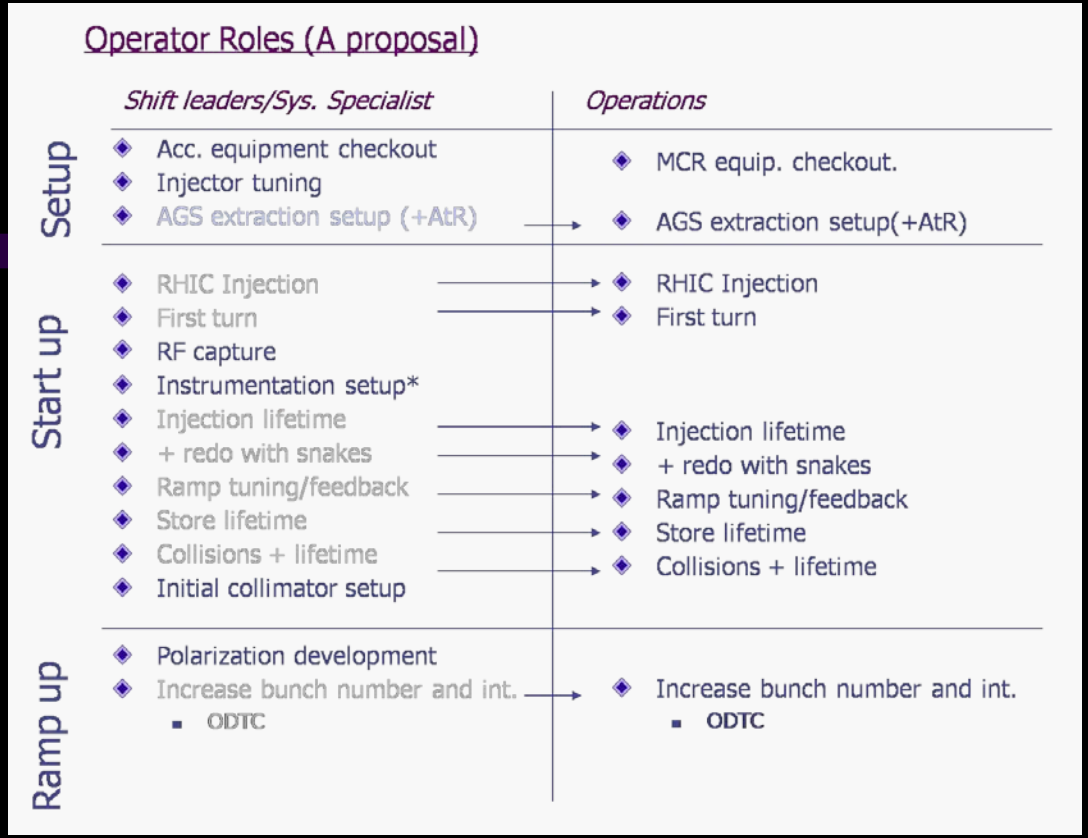


Operators' perspective

- Much of the ensuing discussion centered around communication and the elog.
  - Should experimenters be allowed to comment in the machine log? Maybe only the experiment spokesperson.
  - A call was made for renewed commitment to shift **plan** and summary entries.
  - Entries made (images in particular) often aren't noted to be in a good or bad state. Create an entry tag to this effect?
  - There was a general displeasure of the "lack of narrative" to the elog. Automatic entries disrupt the discussion flow.
  - The elog is very useful in real time and if you are already up to speed, but not for catching up (shifts!)

Training and efficiency

- Although hard to quantify, experience levels of MCR shift staff have an effect on machine performance.
- No Operators were present for the discussion of how shift staff is under-utilized. Ironic?
- Introducing new Accelerator Physics staff to the machine is also important but competes for much the same resources as those needed for hands-on training of MCR staff. System experts, too, require time of their own.



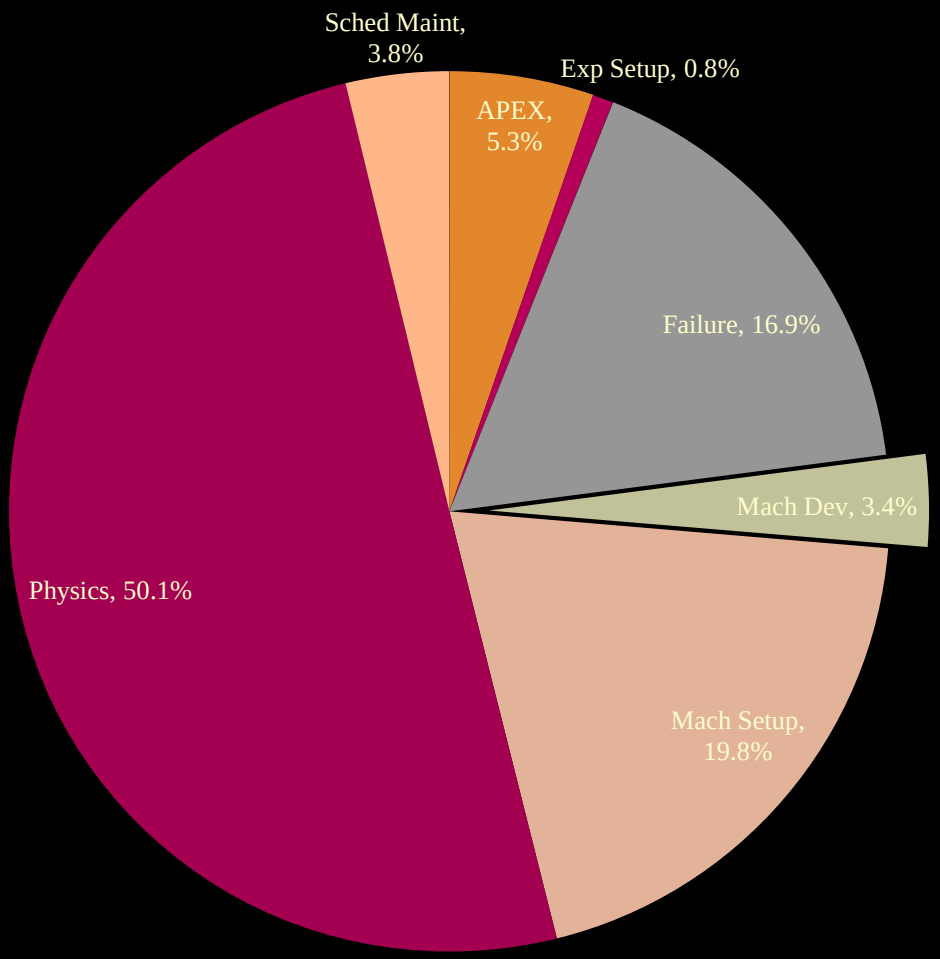
What is the appropriate level of training operators need in each system?

Maybe we don't need 20 full experts, but we certainly don't need (more) black boxes.

Cost and benefits of Machine Development

- Lines are often blurred between Machine Development and Setup. Perhaps this should be tracked more aggressively (if you're not attempting a ramp for Physics, it's not setup).
- Organization and planning of MD sessions is lacking. Moreover, these issues apply to more than just Machine Development periods.
- Time estimates are made intentionally small to encourage inclusion in the day's plan.
- A more rigorous planning structure was proposed, similar to the tracking implemented for Maintenance jobs.

200GeV run MD 3.4% of total program



Cost and benefits of Machine Development

- Discussion ensued on planning and scheduling aspects.
  - How should work planning rules apply to personnel engaged in MD?
  - The 9AM meeting is the forum for discussing machine performance and identifying issues. But it is not a work plan. (To Do List vs. A plan)
  - How can one schedule MD when its necessity is unpredictable? Too few areas of the week are left in any case.

Summary

- The operations session, especially the last two topics, created much debate and discussion, as intended when the topics were proposed.