Run 20 RHIC Machine/Experiments Meeting

January 28, 2020

Agenda:

- General discussion of Run 20 & Scenario for discussion - W. Christie
- Collider Update - C. Liu
- LEReC Update - A. Fedotov
- STAR Status/update - J.H. Lee
- All Other Business (AOB)

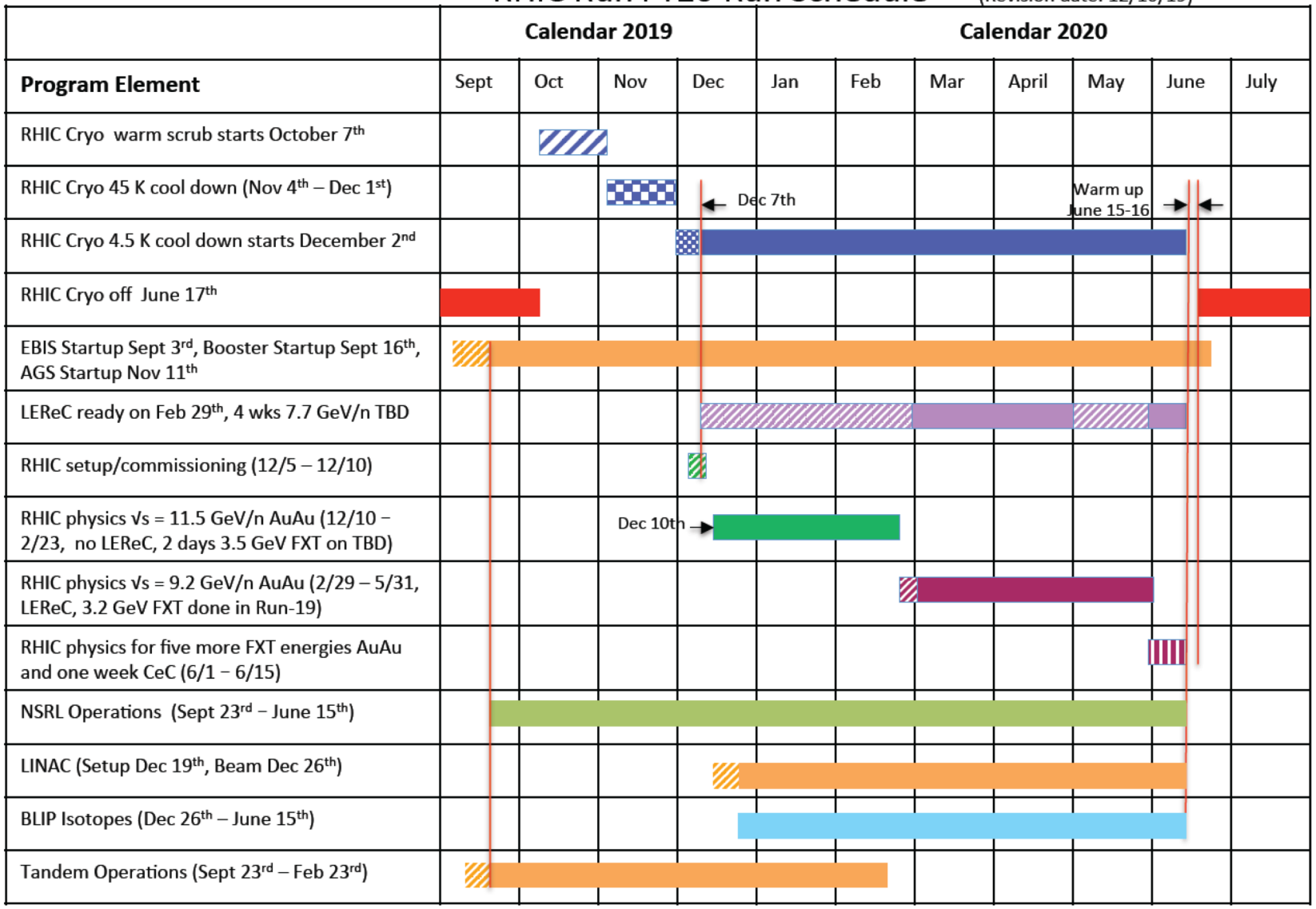
BLUEJEANS CONNECTION INFO:
To join the meeting on a computer or mobile phone: https://bluejeans.com/273705843/1875?src=calendarLink

Phone Dial-in +1.408.740.7256 (US (San Jose))
+1.866.226.4650 (US Toll Free)
+1.408.317.9253 (US (Primary, San Jose))

Global Numbers: http://bluejeans.com/numbers
Meeting ID: 273 705 843

RHIC Run FY20 Run Schedule

(Revision date: 12/10/19)



N.B. With the FY2020 budget final, RHIC Run 2020 will be 28 Cryo weeks long, as presented above.

The actual transition date between 11.5 and 9.2 GeV Physics running will be a matter of discussion as the run progresses.

It is likely that STAR will request to start/run the Fixed target sometime in mid to late January.

Summary of interleaving LEReC Commissioning with the STAR Physics running

Meeting held on December 17, 2018 to discuss Strategy/plan:

- Once collisions available, Spend the first about week getting STAR tuned up and the Physics running going.
- After this first week of running, start interleaving LEReC commissioning
  - Idea discussed to schedule for 12 hours every other day (e.g. M, W, F)
  - Keep schedule "flexible" so that if for any reason LEReC can't effective use the time it switched back to Physics running.
  - Also so that if LEReC is making good progress, and more time is desirable, the allotted time can be extended.

This is a Strategy/plan to get started on this sharing of the Collider time. Expectation is that once we see how this works we'll discuss if we need any modifications.

Rough accounting of LEReC hours per week (Run 20) and planned for this week:

12/10 - 12/16:	~20 hrs LEReC
12/17 - 12/23:	28 hrs LEReC
12/24 - 12/30:	0 hrs LEReC
12/31 – 1/6:	~24 hrs LEReC
1/7 - 1/13:	~ 31 hrs LEReC
1/14 – 1/20:	~ 33 hrs LEReC
1/21 – 1/27:	~ 32 hrs LEReC
1/28 – 2/3:	*~ 38 hrs LEReC*

Total LEReC ~ 206 hrs (~ 8.6 days)

Key:

Blue = as run

Red = planned

STAR Beam Use Request for Run20

	Beam Energy (GeV/nucleon)	$\sqrt{s_{NN}}$ (GeV)	μ_B (MeV)	Run Time	Number Events "Good" requested / collected	
	9.8	19.6	205	4.5 weeks	400M	582M
	7.3	14.5	260	5.5 weeks	300M	324M
Run20	5.75	11.5	315	9.5 weeks	230M	
Run20	4.55	9.1	370	9.5 weeks	160M	
	3.85	7.7	420	12 weeks	100M	
	31.2	7.7 (FXT)	420	2 days	100M	51M
	19.5	6.2 (FXT)	487	2 days	100M	
	13.5	5.2 (FXT)	541	2 days	100M	
	9.8	4.5 (FXT)	589	2 days	100M	
	7.3	3.9 (FXT)	633	2 days	100M	53M
	5.75	3.5 (FXT)	666	2 days	100M	
	4.55	3.2 (FXT)	699	2 days	100M	201M
	3.85	3.0 (FXT)	721	2 days	100M	3.7M+300M (run18)

- Top priority for Run20 is measuring next two energies in BES-II at **$\sqrt{s_{NN}}$= 11.5 GeV and 9.2 GeV**
- Finishing **fixed target** measurements at $\sqrt{s_{NN}}$ = 3.5, 3.9, 4.5, 5.2, 6.2, 7.7 GeV

STAR's plan is to accumulate 100 Mevts this year for each of the 6 FXT energies.
Rough estimate of STAR running time needed per Energy is ~ 16.5 hrs.

- assumes average HLT good rate of 1700 Hz

Slide from the 12/3/19 STAR Time mtg presentation

All Other Business (AOB)