

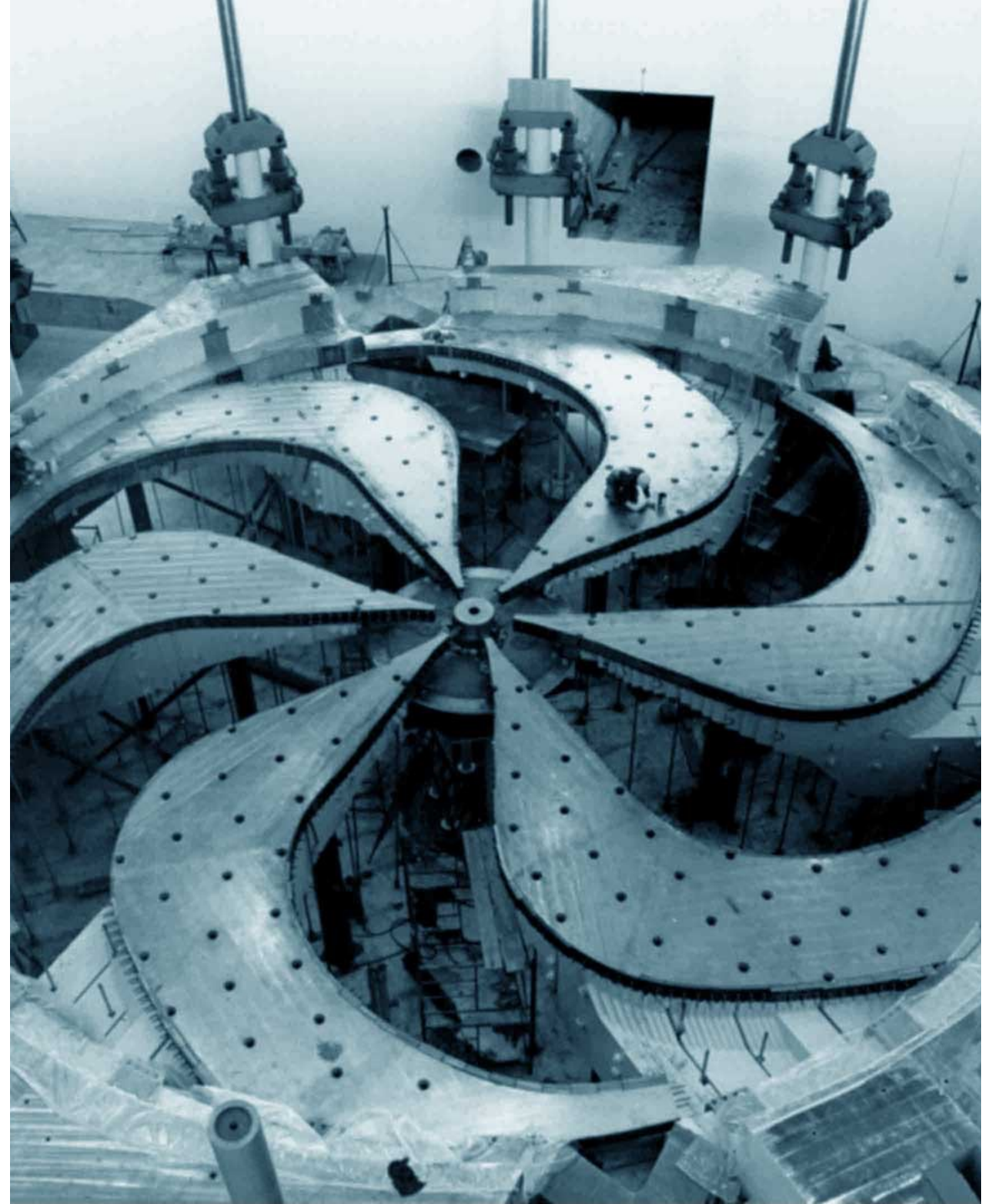
PSD BAE Retreat Introduction

24 May 2024

Petr Navratil
Interim Director, Physical Sciences

TRIUMF is located on the traditional, ancestral, and unceded territory of the xwməθkwəyəm (Musqueam) People, who for millennia have passed on their culture, history, and traditions from one generation to the next on this site.

2024-05-23



Welcome!

- Participants include PSD BAEs and P&S Scientists as well as BAEs from other divisions
- Focus on the next five-year planning based on the \$400M budget
 - Discussions and development of the 5YP scenarios
 - Input for
 - Consultations with ACOT on June 10-12
 - Consultations with the Board of Governors on June 18th
 - Meeting with TUEC on July 5th
 - Science Week 2024 where broader community will be consulted

5YP scenarios

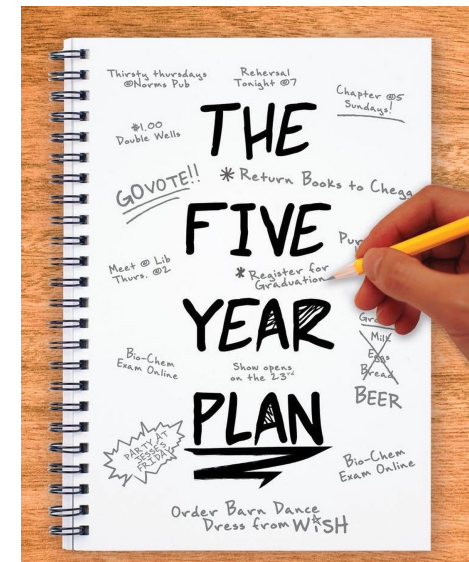
- (i) \$400M scenario submitted to government (“loss of opportunity”)
 - Delay of ARIEL construction for two years, to the end of the five-year period
 - Deferral of IAMI operations for two years
 - Deferral of beamline 1A refurbishment by two years, halving the cost in this plan by extending the cost into the next funding cycle
 - NRC staff at the current level
 - MRO costs remain the same, assuming all legacy and existing systems are operated at the same level of science capacity
 - Commercial revenue is assumed to be similar to the full request



	Funding Level			
	≤ 300	350	400	450
Operational excellence	Yellow	Green	Green	Green
IAMI	Orange	Light Green	Light Green	Green
Facility utilization	Orange	Yellow	Light Green	Green
Domestic research ecosystem	Orange	Yellow	Light Green	Green
Site maintenance	Red	Orange	Yellow	Green
Talent and training	Red	Orange	Yellow	Green
Major deferred maintenance (BL1A/substation)	Red	Orange	Yellow	Green
Innovation & commercialization	Red	Red	Yellow	Green
International research ecosystem	Red	Red	Yellow	Green
ARIEL completion	Red	Red	Yellow	Green
ARIEL operations	Red	Red	Orange	Green

5YP scenarios

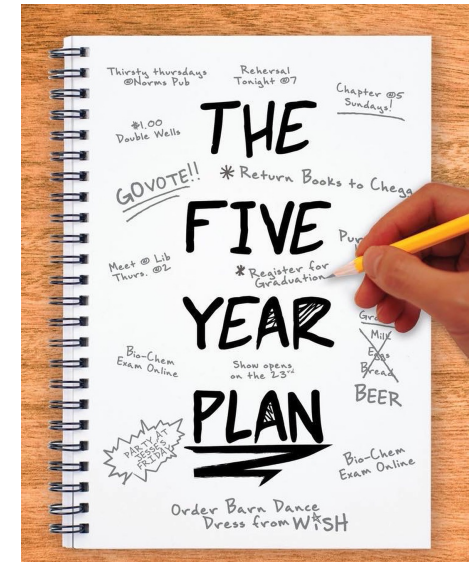
- (ii) A one-year shutdown of the main cyclotron to finish ARIEL construction
 - Shutdown in 2026 (Dec 2025-April 2027)
 - Ramping to 5000 hours delivery by end of 5YP
 - BL1A triplet exchanged during the year-long shutdown
- (iii) Status quo
 - 6-month shutdown – 6-month beam through 2028 to deliver ARIEL
 - BL1A triplet exchanged



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In all scenarios, the smaller cyclotrons operate (caveat ARIEL requirements)
Key infrastructure refurbishment, e.g., transformer replacement in all scenarios
Total number of NRC positions at the current level in all scenarios



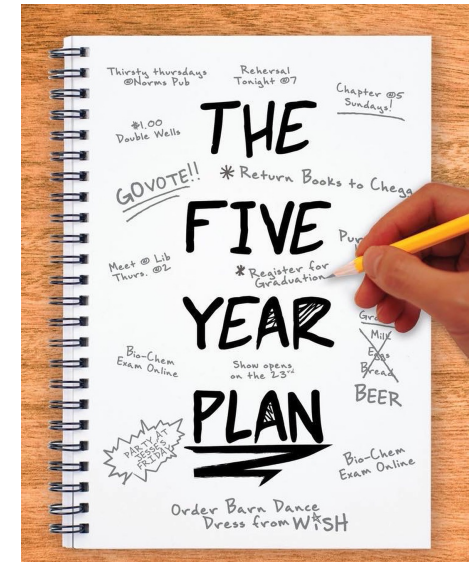
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Key infrastructure refurbishment, e.g., transformer replacement in all scenarios
Total number of NRC positions at the current level in all scenarios

We need to assess NRC-supported staffing requirements within PSD
(i) minimum viable staffing to deliver the three scenarios
(ii) preferred staffing levels to ensure contingency capacity



Agenda

08:00	Breakfast	
	<i>Isabel MacInnes Ballroom , Walter Gage Residence 5959 Student Union Blvd</i>	08:00 - 08:30
	Introduction	<i>Petr Navratil</i>
	<i>Isabel MacInnes Ballroom , Walter Gage Residence 5959 Student Union Blvd</i>	08:30 - 08:45
	ARIEL completion timeline	<i>Alexander Gottberg</i>
09:00	<i>Isabel MacInnes Ballroom , Walter Gage Residence 5959 Student Union Blvd</i>	08:45 - 09:15
	DarkLight	<i>Michael Hasinoff</i>
	<i>Isabel MacInnes Ballroom , Walter Gage Residence 5959 Student Union Blvd</i>	09:15 - 09:35
	Nuclear Physics	<i>Chris Ruiz</i>
10:00	<i>Isabel MacInnes Ballroom , Walter Gage Residence 5959 Student Union Blvd</i>	09:35 - 10:20
	AM Break	
	<i>Isabel MacInnes Ballroom , Walter Gage Residence 5959 Student Union Blvd</i>	10:20 - 10:50
	Particle Physics/Quantum Center	<i>Chloé Malbrunot</i>
11:00	<i>Isabel MacInnes Ballroom , Walter Gage Residence 5959 Student Union Blvd</i>	10:50 - 11:15
	Science Technology/Detector Center	<i>Fabrice Retiere</i>
	<i>Isabel MacInnes Ballroom , Walter Gage Residence 5959 Student Union Blvd</i>	11:15 - 11:40
	Scientific Computing/AI Center	<i>Wojciech Fedorko</i>
	<i>Isabel MacInnes Ballroom , Walter Gage Residence 5959 Student Union Blvd</i>	11:40 - 12:00
12:00	Lunch	

13:00	Beamline 1A renewal	<i>Oliver Kester</i>
	<i>Isabel MacInnes Ballroom , Walter Gage Residence 5959 Student Union Blvd</i>	13:00 - 13:25
	Life Sciences	<i>Cornelia Hoehr</i>
	<i>Isabel MacInnes Ballroom , Walter Gage Residence 5959 Student Union Blvd</i>	13:25 - 13:50
	UCN	<i>Ruediger Picker</i>
14:00	<i>Isabel MacInnes Ballroom , Walter Gage Residence 5959 Student Union Blvd</i>	13:50 - 14:15
	PM Break	
	Quantum Materials - muSR & beta NMR	<i>Sydney Kreitzman</i>
15:00	<i>Isabel MacInnes Ballroom , Walter Gage Residence 5959 Student Union Blvd</i>	14:45 - 15:15
	RadMol	<i>Stephan Malbrunot-Ettenauer</i>
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	Other PSD CFI IF 2025 proposals - ID², Liquid Ar, nEXO, PIONEER, ALPHA	<i>Chloé Malbrunot et al.</i>
16:00	<i>Isabel MacInnes Ballroom , Walter Gage Residence 5959 Student Union Blvd</i>	15:45 - 16:10
	Theory	<i>David McKeen</i>
	<i>Isabel MacInnes Ballroom , Walter Gage Residence 5959 Student Union Blvd</i>	16:10 - 16:30
	Concluding discussion	<i>Petr Navratil</i>
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Key presentations: ARIEL completion

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Merci

Questions?

