CesrTA Machine Studies Task Overview

I. Experiment Description

Experimental Topic	Electron Cloud Comparison with August Data: TEWave, SPU		
Classification ¹	EC, INST(TEW, SPU)		
Coordinator/	JPS		
Experimenters			
Primary Goals	Compare TEW and SPU at 15E, SPU at 15W		
Description ²	2.1 GeV Conditions: Positrons and Electrons		
	 Data will be taken using Shielded Pickups at 15E/W TE Wave detector at 15E Bunch plus witness bunch at 28 – 84ns Single bunch with solenoid field +/- 150 Gauss (if time allows, I will put in multibunch trains and take SPU TEWave data vs. current). 		
Special Needs/Requests	Will want to "steal" BPM at 15E - access required before/after main data taking.		
Prerequisites ³	Personnel	Description	
Hardware Setup	JPS	"steal" BPM at 15E	
2.1GeV e+ injection	???	Need positron and electron injection	
Time Requested ⁴	No. Shifts	Principal Tasks	
4hrs (e+/e-)	0.5	For witness bunch studies	
8 hrs (e+/e-)	1	For solenoid studies	

¹ Machine Studies Classifications:

[•] EC – Electron Cloud

[•] LET – Optics Correction and Low Emittance Tuning

[•] IBS – Intra-beam scattering studies

[•] xBSM – x-ray Beam Size Monitor

[•] INST – Instrumentation (BPM development, RFA development, other)

[•] MDEV – Machine Development (includes injection configuration, injection tuning, custom orbit setup, instrumentation preparation, etc.)

MREC – Machine Startup (recovering conditions after down period or access)

² Attach additional pages for experimental description if needed

³ Indicate other machine work that is required in preparation for this machine studies experiment.

⁴ Indicate the principal shift topics and estimated number of shifts required

II. Machine Studies Assignments

Reserved for Project Management Team Use				
Topic ID				
Priority ⁵				
Shift Assignments	Date	Shift		

3. High – results are of immediate interest but not require

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Priority Scale:

^{1.} Critical – results are necessary for preparation for subsequent down/run periods

^{2.} Very high – results are strongly desired for achieving program milestones or in preparation for subsequent down/run periods

^{4.} Moderate – results should be pursued at the first convenient opportunity

^{5.} Low – results are not presently a high priority for either project milestones or planning