

# CesrTA Machine Studies Task Overview

## I. Experiment Description

<b>Experimental Topic</b>	vBSM Characterization of horizontal beam size	
<b>Classification*</b>	INST	
<b>Coordinator/ Experimenters</b>	SW	SW, DLR
<b>Primary Goals</b>	Characterize vBSM resolution	
<b>Description<sup>†</sup></b>	<ol style="list-style-type: none"> <li>1. Align the newly installed slits (1 vertical and 2 horizontal slits)</li> <li>2. Record the correct settings of each slits in the Labview program</li> <li>3. Measure the horizontal beam size by dialing the special knob, which changing the phase between two RF cavities to minimize the x-z tilt at vBSM positions.</li> </ol> <p>Check both positron and electron vBSM.</p>	
<b>Special Needs/Requests</b>		
<b>Prerequisites<sup>‡</sup></b>	<b>Personnel</b>	<b>Description</b>
Create special knob	DLR	Create a special knob to minimize x-z tilt at vBSM
<b>Time Requested<sup>§</sup></b>	<b>No. Shifts</b>	<b>Principal Tasks</b>
6hr / beam	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)

<sup>†</sup> Attach additional pages for experimental description if needed

<sup>‡</sup> Indicate other machine work that is required in preparation for this machine studies experiment.

<sup>§</sup> Indicate the principal shift topics and estimated number of shifts required

## II. Machine Studies Assignments

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

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