

RHIC Ramp set-up: people and tasks:

1. Ramps and Acceleration (J. van Zeijts)

- 1.1.*** Set up the ramp without and with the Phase lock loop feedback.
- 1.2. RF ramp set up (Mike Brennan)***
 - 1.2.1.*** Need ~4 ramps with beam surviving at least to transition.
 - 1.2.2.*** Iterate on Brho RTDL frame calibration.
 - 1.2.3.*** Ramp through transition with no jump.
- 1.3.*** Commission the persistent current correction.(W. Fischer, S. Tepikian,V. Ptitsyn)
- 1.4.*** Tune the chromatic correction. (Angelika Drees and Steve Tepikian)
- 1.5.*** Measure wall current monitor vs DCCT. (Christoff Montag)
- 1.6.*** Average radius vs. time during the ramp.(V. Ptitsyn and Todd Satogata).
- 1.7.*** Commissioning of the multi- instruments data acquisition and collection (**R. Michnoff and R. Lee**).

2. Commissioning of the γ_t JUMP System (Jorg Kewisch)

- 2.1.*** Measure the function $I(\delta)$ vs. value of the transition (GeV).
- 1.2.*** Adjust the Tune compensation circuit.
- 1.3.*** Measure the α_1 through transition.

3. Measure Difference orbits along the ramp (V. Ptitsyn)

- 3.1.*** Check beam positions in arcs and correction element distribution.
- 3.2.*** Compare the betatron functions to the model.

4. Measure the dispersion function along the ramp (V. Ptitsyn and S. Tepikian)

- 1.1.*** From the radial loop offset difference orbits measure the dispersion function *Check dispersion within the IR regions.*

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5. Orbit correction-Feed Forward along the ramp (V. Ptitsyn)

- 5.1.** Using stepping stones check the orbits and correct. Additional DX and D0 current correction might be needed. *Include a plan here on how to correct the DX and D0 currents.*

6. Phase Lock Loop feedback Commissioning along the Ramp (P. Cameron and A. Drees)

- 6.1.** Measure tunes along the ramp and correct by feedback or “manually” (J. van Zeijts, A. Marusic, C. Schultheiss).
- 6.2.** Commissioning of the 'Tune Matrix' dependence on gamma (J. van Zeijts, A. Marusic, C. Schultheiss).
- 6.3.** Check Tune feedback loop parameters vs. gamma (J. van Zeijts, A. Marusic, C. Schultheiss).
- 6.4.** Collect high resolution tune/correction information along ramp for use in Orbit Feed-Forward (J. van Zeijts, A. Marusic, C. Schultheiss, V. Ptitsyn).
- 6.5.** Run the ramp without the feedback tune and compare.

7. Measure Chromaticity along the ramp(S. Tepikian)

- 7.1.** Correct the sextupole’s settings before and after transition.
- 7.2.** Tune chromaticity along the ramp.

8. Tune the abort along the ramp (L. Ahrens)

- 8.1.** Requires a special shift.

9. Measure momentum aperture before and after transition (J. Kewisch)

- 9.1.** Transition crossing studies.
- 9.2.** Measure transverse and longitudinal emittance before and after transition.

10. Coupling measurements and correction (F. Pilat)

- 10.1.** Correct coupling along the ramp.

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11. Improve efficiency along the ramp

11.1. Orbit Correction **FEED FORWARD** (V. Ptitsyn)

11.2. Tune Correction (P. Cameron and A. Drees).

11.3. RF tuning (M. Brennan).

11.4. Chromaticity correction before and after transition (S. Tepikian).

11.5. Commissioning of the multi data correlation and logging along the ramp (R. Michnoff).