

# Machine Studies

## Schedule for Run03-7, 2004

November 15th 0800 - November 17th, 0800

| Time                    | Descriptions   | Studios                                  | SRStatus        |
|-------------------------|--|--|-----------------|
| <b>Monday, 11/15/04</b> |  |  |                 |
| 0800-0805               | Record XBPM data for user orbit with TopUp running   | OPS                                      | Stored Beam     |
| 0805-0900               | Switch from RF3 and RF4 providing, to RF2 and RF4 providing.   | Bromberek                                | No Beam         |
| 0805-0900               | Continue testing of program to help diagnose problem in iocs1vp  | Varotto                                  | No Beam         |
| 0805-0830               | Lower the PAR enclosure temperature  | Pasky                                    | No Impact       |
| 0805-1200               | Attempt to close the Harmonic PAR cavity tuner loop  | Smith/<br>Cherbak/<br>Grelick/<br>Douell | 1st 2hrs no Inj |
| 0830-0900               | Provide last bunch timing signal from iocinjtime to B107 rack 5  | Laird                                    | No Impact       |
| 0830-0900               | Remove three experimental modules from the LIST VXI crate. A reboot is required, which interrupts injection timing. (WRQ#16306)  | Grelick                                  | No Inj          |
| 0900-0915               | Booster source drive level measurement   | Horan                                    | No inj.         |
| 0900-0915               | Adjustments to RF2 and RF4 to lower the 60Hz-related noise on the SR gap voltage   | Horan                                    | No inj.         |
| 0900-1000               | Reboot the following injector iocs: ioclirfgun, iocpar02, iocbvp1, iocbvp3 to add records to compute difference between PS setpoint and readback, for injector kickers and septum PSs. | Varotto                                  | No Inj          |

| <b>Time</b>              | <b>Descriptions</b>  | <b>Studiers</b>                           | <b>SRStatus</b>                    |
|--------------------------|--|---|------------------------------------|
| <b>0900-1000</b>         | <b>Reboot iocs33vp to add record to report Bellows temperature.</b>                                      | <b>Varotto</b>                            | <b>No Beam</b>                     |
| <b>0900-1000</b>         | <b>Reboot IOCS29VP to incorporate new SR vacuum chamber flow PVs</b>                                     | <b>Stein</b>                              | <b>No Beam</b>                     |
| <b>1000-1200</b>         | <b>Trouble shooting tests on sectors 21 and 28 Ion pump controllers (MPC) invalid read-back signals.</b> | <b>Quock,<br/>Stein, Benes</b>            | <b>No Impact</b>                   |
| <b>0900-1200</b>         | <b>Auto-phase detector testing</b>   | <b>Lill/Erwin/<br/>Serenio/<br/>Pasky</b> | <b>Limited Injection</b>           |
| <b>1200-1330</b>         | <b>Operator Training - PAR 0800-1500</b>   | <b>D. Gagliano</b>                        | <b>Limited Inj</b>                 |
| <b>1330-1500</b>         | <b>Operator Training - SR 0800-1500</b>  | <b>Forth</b>                              | <b>Stored Beam &amp; Injection</b> |
| <b>1500-1700</b>         | <b>Operator Training - Booster 1500-2300</b>   | <b>D. Glenn</b>                           | <b>Limited Inj.</b>                |
| <b>1500-1700</b>         | <b>Fast Xbpm tests</b>   | <b>Singh</b>                              | <b>Stored Beam</b>                 |
| <b>1700-2100</b>         | <b>SR studies with some sextupoles off</b>   | <b>Borland/<br/>Sajaev</b>                | <b>Stored Beam &amp; Lim. Inj.</b> |
| <b>1800-2400</b>         | <b>Training (physics graduate students)</b>  | <b>Milton/<br/>Brandin/<br/>Huang</b>     | <b>Limited injection</b>           |
| <b>2100-2400</b>         | <b>Vertical kicker induced beam motion</b>   | <b>Yang/Guo/<br/>Sajaev</b>               | <b>Stored Beam &amp; Lim. Inj.</b> |
| <b>Tuesday, 11/16/04</b> |  |   |                                    |
| <b>2400-0100</b>         | <b>Vertical kicker induced beam motion</b>   | <b>Yang/Guo/<br/>Sajaev</b>               | <b>Stored Beam &amp; Lim. Inj.</b> |
| <b>0100-0700</b>         | <b>Storage Ring Impedance Center Measurements</b>  | <b>Chae/Yao</b>                           | <b>Stored Beam &amp; Inj.</b>      |
| <b>0700-0900</b>         | <b>Operator Training - PAR 0700-1500</b>   | <b>D. Gagliano</b>                        | <b>Limited Inj</b>                 |
| <b>0800-1200</b>         | <b>Booster Automatic Ramp Correction</b>   | <b>Serenio</b>                            | <b>Inj Available</b>               |
| <b>0900-1100</b>         | <b>Operator Training - SR 0700-1500</b>  | <b>Forth</b>                              | <b>Stored Beam &amp; Injection</b> |

| <b>Time</b>                | <b>Descriptions</b>  | <b>Studiers</b>              | <b>SRStatus</b>                    |
|----------------------------|--|------------------------------|------------------------------------|
| <b>1100-1200</b>           | <b>Continue testing of Linac P.S. conditioning status records. Must be able to perform conditioning of linac magnets.</b>  | <b>Varotto</b>               | <b>Limited Injection</b>           |
| <b>1130-1230</b>           | <b>Reboot IOCLIC2</b>  | <b>Quock</b>                 | <b>No Inj.</b>                     |
| <b>1100-1300</b>           | <b>Observe linac beam energy jitter using one of the analyzing magnets both before and after changing out the Preamp/Phase Shifter Assembly in L2 LLRF rack. The actual swap requires that L2 klystron drive (not modulator) be disabled for less than one hour, disabling linac beam.</b> | <b>Grelick, Pasky, Yoder</b> | <b>1hrs No Inj</b>                 |
| <b>1300-1500</b>           | <b>Verify fundamental loop control in back-up systems &amp; check bunch purity</b>   | <b>Pasky/Smith Sereno/</b>   | <b>Stored beam &amp; Inj.</b>      |
| <b>1500-1700</b>           | <b>Operator Training - Booster</b>   | <b>D. Glenn</b>              | <b>Limited Inj.</b>                |
| <b>1500-1700</b>           | <b>Narrowband BPM tests</b>  | <b>Singh</b>                 | <b>Stored Beam</b>                 |
| <b>1700-2100</b>           | <b>P1/xbpm tests with RTFB</b>   | <b>Singh/ Decker</b>         | <b>Stored Beam &amp; Lim. Inj.</b> |
| <b>1700-2100</b>           | <b>PTB optics</b>  | <b>Borland</b>               | <b>Limited Inj.</b>                |
| <b>2100-2400</b>           | <b>Replace and validate S5B:P1 &amp; S36A:P1</b>   | <b>Singh/Bui</b>             | <b>Stored Beam &amp; Inj.</b>      |
| <b>Wednesday, 11/17/04</b> |  |                              |                                    |
| <b>2400-0100</b>           | <b>Replace and validate S5B:P1 &amp; S36A:P1</b>   | <b>Singh/Bui</b>             | <b>Stored Beam &amp; Inj.</b>      |
| <b>0100-0700</b>           | <b>Injuction pulse RTFB FF waveforms</b>   | <b>Emery</b>                 | <b>Stored Beam</b>                 |
| <b>0300-0700</b>           | <b>PAR instability study with streak camera</b>  | <b>Yao/Yang</b>              | <b>Limited Inj</b>                 |
| <b>0700-0800</b>           | <b>Ready for 0+24X1 fill pattern, low emittance, TopUp</b>   | <b>OPS</b>                   | <b>Stored Beam &amp; Injection</b> |