Increased load on refrigerators makes that difficult.

- In the past - reduce cryostat pressure to shift neutral position.
- Resonant frequency very near operating value and cavity is hoppy and subject to microphonic noise.

- W2 neutral position

- All cavities cold and processed to < 100K

RF

- Quench recovery time > 1/2 hour.
- Powering quad bus on and/or off.
- Time glitch
- Quenches have occurred with solenoid on.

- All 12 magnets run at well above lattice requirements for 1 shift with CLEO.
- Instability of chopper power supplies for skew quads and steering resolved.

Superconducting quadrupole status
(1) Why electron beam on target
(2) Mitshubishi klystrons yield higher en-

accelerated position beam

First measurements indicate $X^2$

• 7.06mm tungsten-ion target

$\sim I$

• Peak $B_z \sim 20$Kg

medially beyond target

• Flux concentrator maximizes field in-

Pulsed solenoid lens

POSITION CONVERTER
- Dipole power supply scalar readback hasched to zero
- Switch to electronics
- Signal on BRP's but no radiation
- High / startup optics
- Positions to IR as indicated by CLEO radiation monitors
- Pre shutdown save set
- No seen input for dipole

Ground fault trip in SK 2E

- SCIR skewed and steering chopper power supply control circuit failed due to

Startup

Friday evening - October 5
Procedure

(5% nominal)

\( \theta_y = 10.1 \) °

\( \sim 10 \) m

Startup optics

0.5 mm vertical displacement of 001 \( \rightarrow \) 222 mm orbit error

Alignment of IR quadrans is critical
- Machine down 1 shift/week
  - Round beam test at 1.9GeV
  - Low energy (1.9GeV) injection, instabilities, optics...
  - Prepare IS optics

- Machine studies ~ 2 days/week

<table>
<thead>
<tr>
<th>Start date</th>
<th>Luminosity (pb⁻¹/day)</th>
<th>Beam Energy (GeV)</th>
<th>Follow up</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-Nov-01</td>
<td>25</td>
<td>5.7</td>
<td>Y 47</td>
</tr>
<tr>
<td>1-Feb-02</td>
<td>25</td>
<td>5.7</td>
<td>Y 47</td>
</tr>
<tr>
<td>1-May-02</td>
<td>25</td>
<td>5.7</td>
<td>Y 47</td>
</tr>
<tr>
<td>25-Jun-02</td>
<td>25</td>
<td>5.7</td>
<td>Y 47</td>
</tr>
<tr>
<td>Total</td>
<td>[Tb⁻¹]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>