

FACET Summary Feb 15-22

- Fri 15th
 - Thur. found 2 bad coils in NLTR QF 1494 and no spares (even in the south). Start winding 4 new coils for this magnet. BAS and PPS paperwork completed by Fri swing. Started processing RF and turning on all supplies.
- Sat 16th
 - Continue processing RF. Concentrating on sectors 0-2. Magnet coils being made.
- Sun 17th
 - Continue RF processing. Magnet coil work continues.
- Mon 18th
 - Beam on and to NLTR stopper. NDR in controlled for magnet work. Problems with wire scanner PMTs. Scanners not useable. $2.5e10$ e-.
- Tue 19th
 - All 4 coils RFI and installed into magnet. Ready by swing shift. Stored beam into NDR. Still having regulation issues with NLTR QF PS. Throughput $\sim 50\%$. Poor horizontal dispersion in NLTR. NLTR QD and QF strings tripped and reset by PEM.
- Wed 20th
 - Still poor throughput. NRTL QF tripped on ground fault. Beams off for PAMM. NLTR QF 1494 still running hot and starts to trip on klixon fault during swing. PS not regulating. Decide to try lowering current in string by 10%. Suddenly throughput improves and dispersion improves. Measured current with clamp and find PS delivering more than reporting. Run with lower setpoint until morning.
- Thu 21st
 - PEM starts investigation of PS. Start changing out controller chassis and finally swap out PSC in crate. PS now fixed and regulating. Standardize magnets (~ 40 min). More throughput ($\sim 90\%$ at $1.4e10$ e-). Beam to 2-9 after day shift. With LI02 compressor off we get 3.2×0.3 emittances. Trips of various power supplies.
- Fri 22nd
 - Beam to 2-9 until 6am. NRTL stopper locked in for LCLS-II contractor work during day. There were several trips of various power supplies in the NDR. Sector 2 emittance tuning. DR orbit response data taken. After several trips Kly 1-4 flow-switch replaced (~ 2 hr). LI01 wire scanner now working (gate generator replaced). More NDR orbit response data collected. NRTL emittance tuning.