

Weekly Report – week of April 4, 2011
Fabrication and Assembly of ERL hardware
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Cryogenics: The installation of the cryogenic transfer lines along with wiring of level and temperature sensors to support the ERL and VTF cryo refrigerator continues.

Laser: The supplemental AC unit continues to provide adequate cooling for the laser room. We await the replacement crystal to correct the performance of the Lumera Laser. Planning and reviewing laser transport line design details, procedures for component testing, and assembly. Developing the diagnostic for phase-locking the cathode laser in order to be able to test long-term locking performance.

FPC conditioning: The Navy FPC's are being tested at low power CW this week. We have high power testing to destruction scheduled for the week of April 11th.

Photocathode: A sample which is half SS and half Moly has been coated in the deposition system with antimony and will be removed for testing.

Gun Cryomodule: The gun cavity string mock-up is packaged-up and ready to be shipped to J-Lab. The strain gauges and clamping mechanism have been functionally tested. The fabrication of string assembly aides are moving forward as funding permits. A PO for a portable clean room has been placed for the final assembly of the 703MHz Gun string assembly.

PASS System: The ERL PASS system allowing operations of the 1MW Klystron and the FPCs in the ERL Block enclosure worked perfectly during our recent Navy FPC testing. The VTF PASS system continues now that man-power is available.

Mezzanine: The mezzanine modifications have been completed and the vacuum furnace has been moved into its final location. The second pass-thru sleeve in the mezzanine decking has been delivered and is awaiting installation.

Large Grain Gun: There has been 11 PO's , 5 for FPC parts and 6 for vacuum hardware written and placed. The layout drawings for the components that will populate the 28" top plate are under way. The imaging and optical design is well developed. There is some re-machining of the top plate proposed to add some more ports. The vacuum system is laid out.

5-cell cavity/cryomodule: The paperwork continues for the G-5 test safety review.

ERL injection line: Vacuum envelope is in preparation to final review, correction magnets are under design.

ERL Extraction line: Magnets are being fabricated, beam dump pressure vessel code compliance under evaluation, vacuum/instrumentation layout needs to be reviewed and finalized.

ERL Tech Support Area: The EEBA area is on hold due to funding issues. Design drawings and cost estimates have been completed. The BID packages have gone out for the construction of the enclosure and refurbishment of this area.