NLCTA T20/T105 Startup status - March 28, 2001

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1) T20/ T105 are now operating 150 MW, 100 ns (FW90%Max). Both structures have a fault rate of about 5/hour average. Reset gymnastics limit the combined rate to around 40 / hour. The pulse width was raised from 50 ns to 100 ns Tuesday morning at about 10:00 and the LABVIEW program steadily increased the voltage for the remainder of the day. If there are no trips in 2 minutes, the amplitude is raised 1%; if there are trips, the amplitude is decreased 2%. The pulse width is changed only during the reset.
2) Vacuum as monitored by the beamline gauges increased about 0.5 nTorr following the increase in pulse width. Vacuum activity remains much less than during the initial processing of DDS3 in mid-September. RGA data were taken Tuesday, showing little change from before operation began. Time based data will be taken today.
3) We have a procedure for control of the missing energy interlock hardware. This has been difficult to finalize because the parameters appear to change, requiring routine checks. The trip occurs at >10% missing energy (SLED out - structure out forward).
4) The station 1 modulator has averaged about 5.05e6 pulses/day (out of 5.18e6 max possible) ~ 97.5%. The 2 structures average 4.1e6 pulses/day (>10MW) ~ 80%, much improved over DS2S operation (55% in October 2000). The modulator rate includes interruptions for entry and other maintenance work. There were several interruptions Tuesday caused by incoming water temperature changes.
5) A second attempt to seal the leak in the structure imager was made Tuesday.
6) The video system is not yet working although steady progress has been made. An entry to exchange the camera was made Tuesday.