

Maintenance (January 07-13, 2014)

- 1) Modes of the Jade pump beam and Femtopower seed beam were imaged at the Booster Ti:Sapp crystal ($\sim 300\mu\text{m}$ FWHM for Jade, and $\sim 600\mu\text{m} \times 400\mu\text{m}$ for the Femtopower).
- 2) Damaged Booster Ti:Sapp crystal was replaced with an old Ti:Sapp crystal from the PreAmp. The new crystal has the same length, 15mm, and a larger diameter, 10mm, than the Booster crystal.
- 3) Fraction of Jade energy sent to the Booster Ti:Sapp crystal was decreased to 0.5 (from 0.55), to decrease fluence below $\sim 10\text{J}/\text{cm}^2$ and lessen chances of damage.
- 4) The mode of the Femtopower seed was decreased to match it more closely to the pumped region, and increase the output energy from booster. It was also carefully realigned.
- 5) Alignment iris was installed right before the Booster crystal to facilitate alignment without the need to remove the Booster crystal.
- 6) Monitor for Booster output mode was installed.
- 7) Half wave plate was re-installed before the XPW to permit control of pulse energy.

8) Cables for laser control and monitoring were rerouted, grouped, and cleaned up to reduce clutter and improve usability.