

Improvements to Add CHI to Ohmic plasmas
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- Previous experiments were initiated by producing a lower single null discharge and applying voltage to the lower divertor plates with the CHI power supply.
- Early results produced a drop in the measured plasma current. This was attributed to current flowing in private flux region of the upper divertor.
- Increasing the upper triangularity, thus forcing a current path along the SOL (below the top divertor x-point) avoided the drop in the plasma current.
- By providing a small puff of flow from the lower dome gas injection system, the injector current was increased.
- Because of noise in the magnetic signals, EFIT reconstructions were not possible for some of the interesting cases (Re: see attached shots 106444 and 106447).

Plans for the current run are:

1. Repeat the interesting cases after improved grounding of the diagnostic camac racks.
2. Use EFIT reconstructions to estimate the amount of SOL (CHI edge drive current).
3. Repeat the experiments with feed back control of the loop voltage removed (so that the control system does not automatically reduce the loop voltage if there is added current from CHI).

