ITF gun status

- Documented:
 - procedures to change the gun cathode
 <u>http://www.slac.stanford.edu/grp/ad/source-grp/Procedures/InjProcs.htm</u>
 - procedures to cesiate gun cathode (same as above)
 - schematic layout of ITF injector, which helps us to easily identify each important elements for beam tuning. <u>http://www.slac.stanford.edu/grp/ad/source/gtl/ITF.pdf</u>
- ITF Elog works including plot attachment <u>http://mccelog.slac.stanford.edu/elog/wbin/elog_item.php?elog_id=</u>

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- Gun work properly
- Gun cathode cesiation works properly; one cesiation per 5-6 days
- Ready for beam tuning through the BL.

QE-lock issue

• To Check QE-lock measurements

- To check signal from QE lock modulator ok
- To check signal from cathode Nano-ammeter (see VM readings)
 - 4.1 mV @ setting laser power to 0
 - 4.6 mV @ setting laser power to 30
 - 4.9 mV @ setting laser power to 60
 - 5.9 mV @ setting laser power to 80
- To check signal from total Nano-ammeter
 - -0.3 mV @ laser off
 - +0.6 mV @ setting laser power to 60
- To check lock-in amplifier
 - Too many knobs
 - Try two amplifiers, but can't lock in by changing the phase
- Personal comments:
 - Is the signal from nano-ammeter normal? Not sure.
 - Two lock-in amplifiers work normally? Not sure. Too many parameters.
 - Best way is to bring an expert who knows the system to check it