

Fig. 1 At 210 A steady current trip occurs. Contactors open and the current starts to decay.

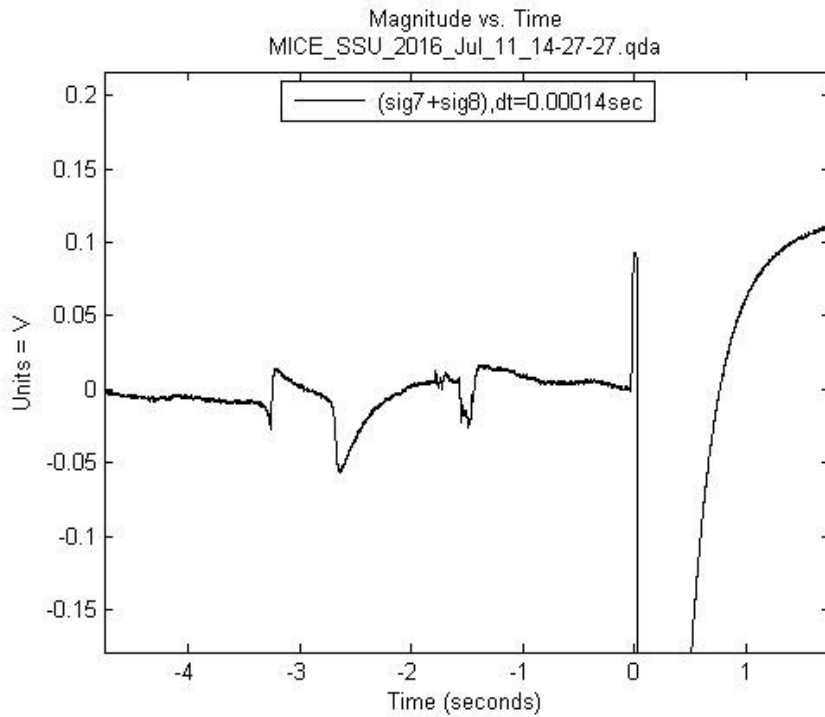


Fig 2. The trip was caused by the unbalance on the E1 and E2 half coils of the E-C-E circuit. The threshold has passed 100 mV value and tripped.

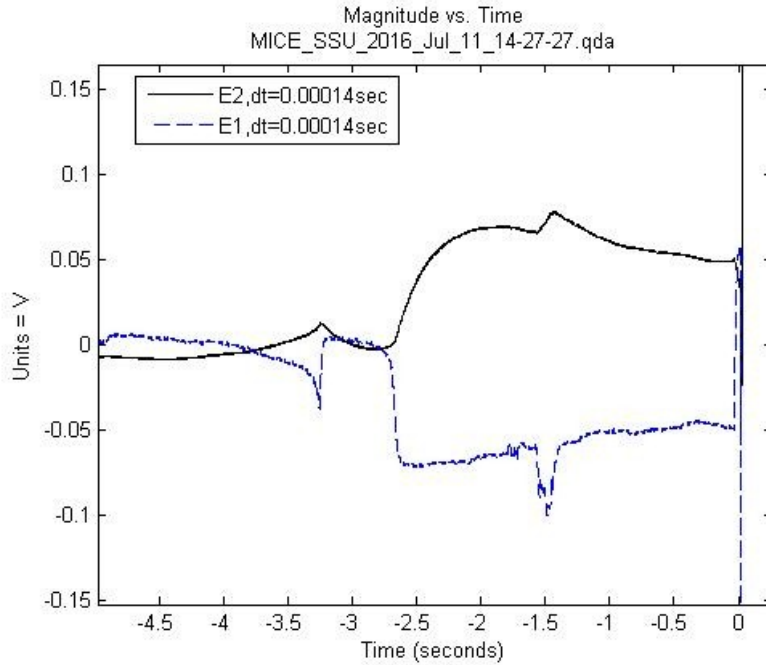


Fig 3. The two half coil signals (E1 and E2) show inductive pickup well before the trip.

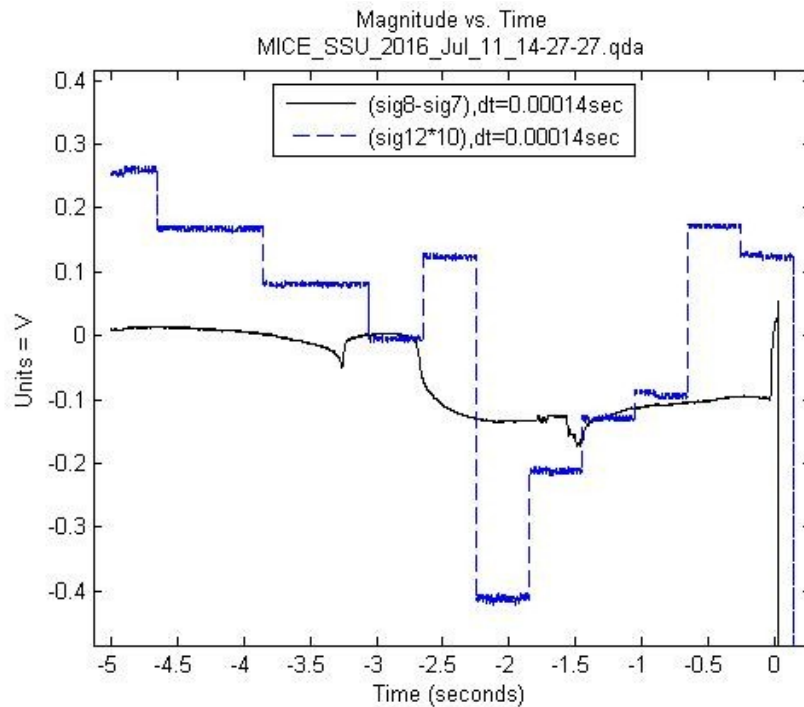


Fig 4. The whole coil voltage (across the magnet – sig8-sig7) and the E-C-E circuit di/dt signal (sig12*10) is shown. The correlation between the two curves is clear. The di/dt signal is course since there is a 0.5 sec filtering applied. The di/dt signal was multiplied by 10 to be able to compare the two plots.

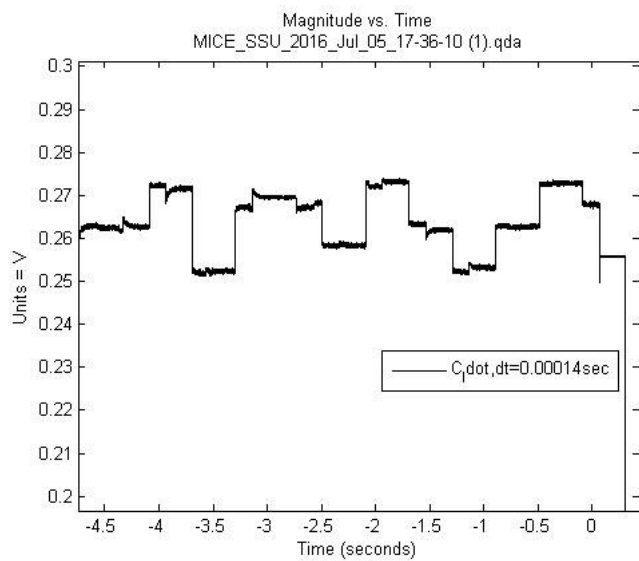
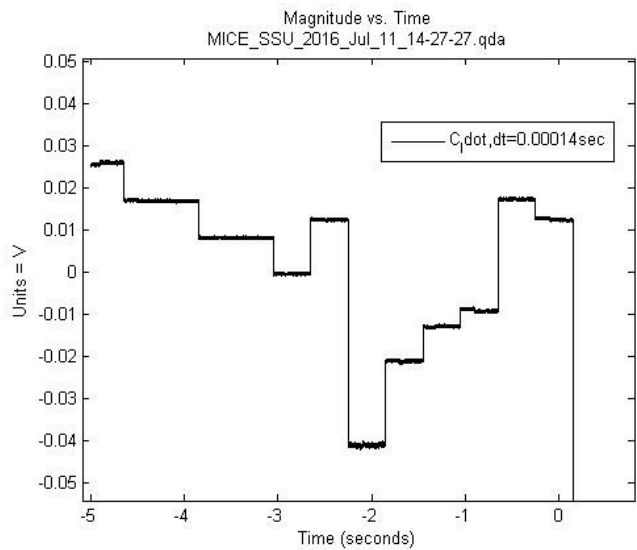


Fig 5. Both plots are the E-C-E di/dt signals. The upper correspond to the last event and lower one is a previous ramp trip event (constant ramp with about 25 mA/sec). It is clearly seen that at the last event the di/dt was not stable.