BEC HHT, Core B34, in H2, update 3/25 – 3/28

From the log:
_2016-03-25_
15:40 putting system back together and inserting the inner core TC.
_2016-03-26_
8:20 starting new sequence at 12VAC on the bias supply.
13:35 checking in I see that Q was not actually running. Reset sequence and verified Q is actually running now.
_2016-03-27_
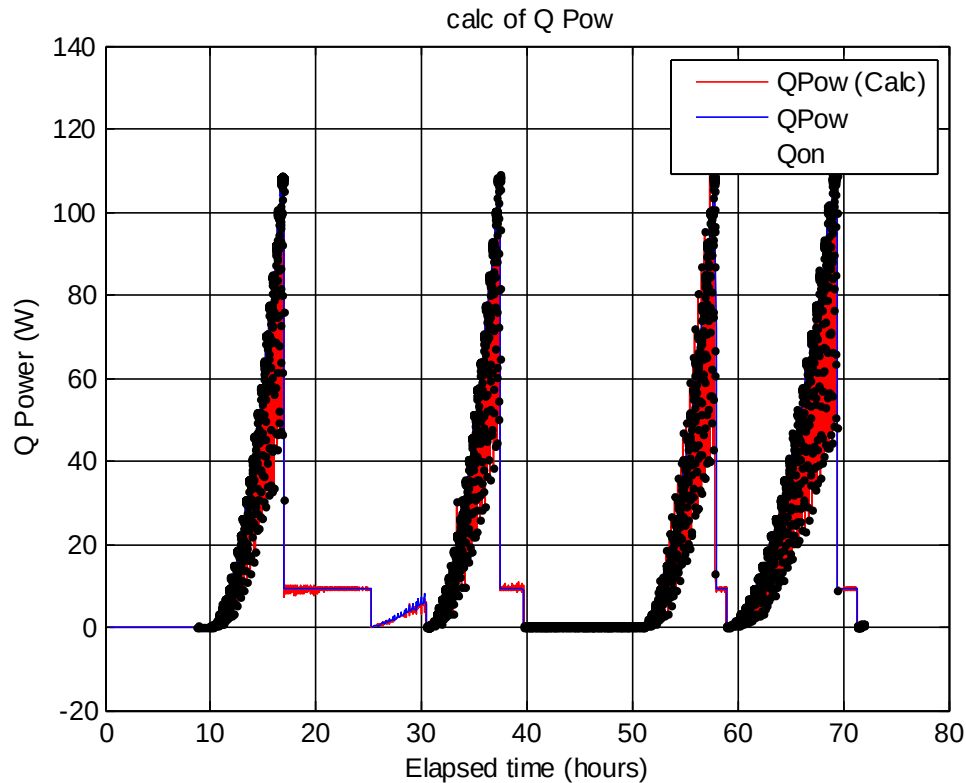10:00 see that Q is still active indicating that I did not actually start the intended sweep.
10:05 actually starting sweep. Will finish at ~5pm Setting alarm to start next sweep at 20VAC on Bias supply.
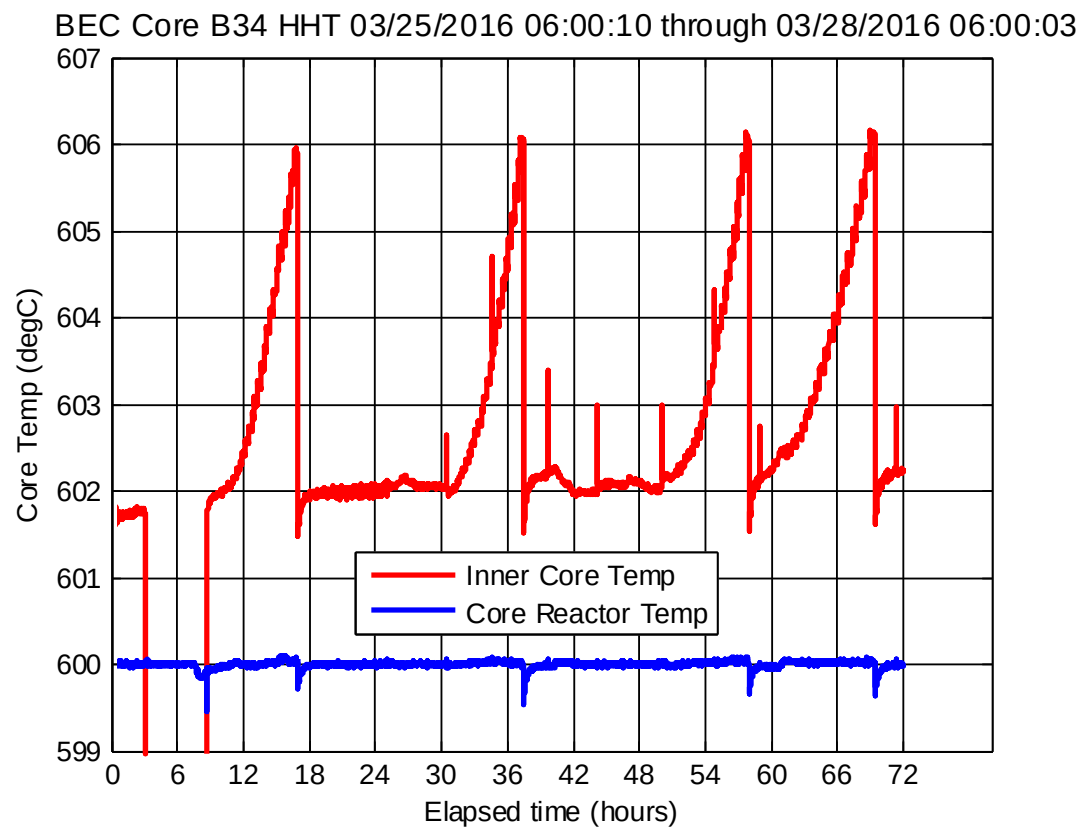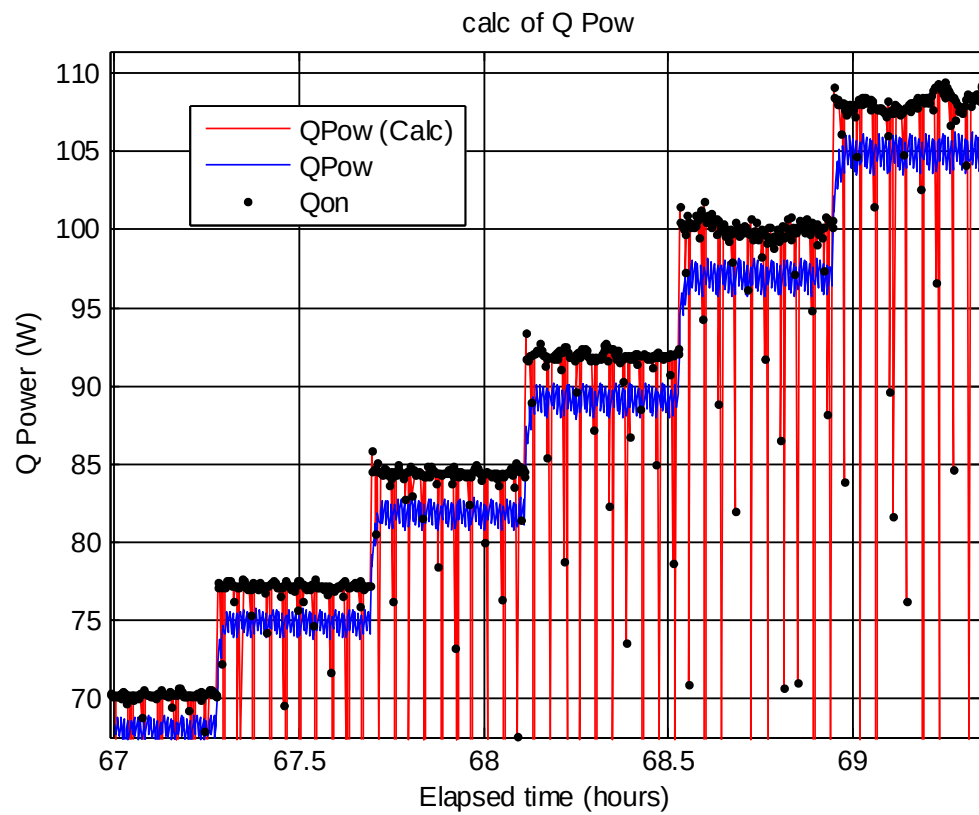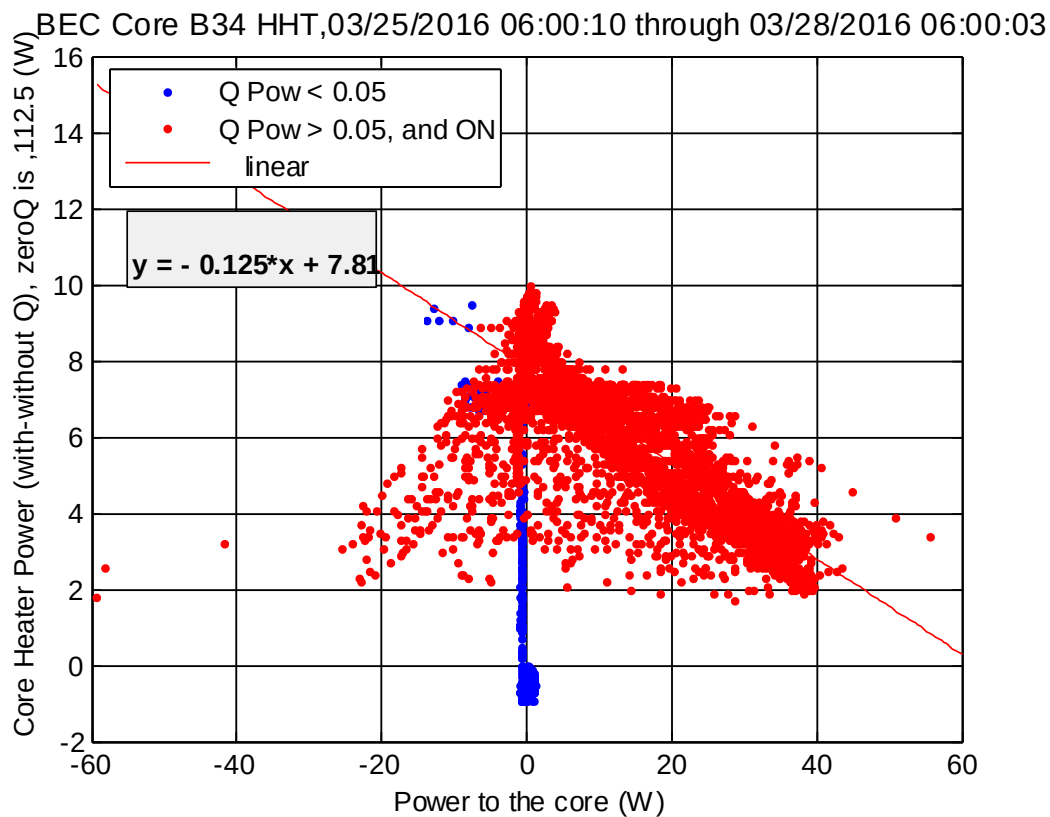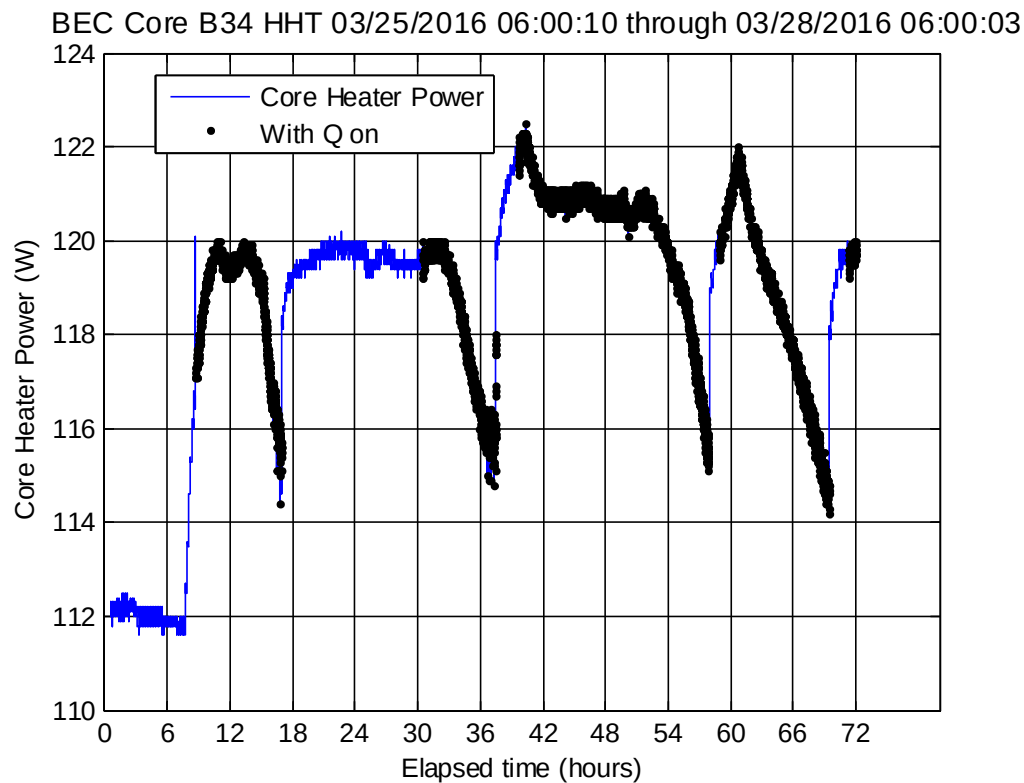17:55 increasing bias supply to 25VAC. Setting Bias supply to 15 VAC.
18:00 Starting new sweep and reset Q supply to 15VAC.
_2016-03-28_
6:20 set bias to 26VAC starting new sweep.

calc of Q Pow

BEC Core B34 HHT 03/25/2016 06:00:10 through 03/28/2016 06:00:03

BEC Core B34 HHT 03/25/2016 06:00:10 through 03/28/2016 06:00:03

BEC Core B34 HHT,03/25/2016 06:00:10 through 03/28/2016 06:00:03

$y = - 0.125*x + 7.81$

The above graph uses Qpow = Q current * Q voltage. This is very noisy. The data stream records Q Pow as this value, smoothed with a moving average. The result is less noise, but 3% lower value of Q

Pow. A similar graph using the filtered version is below. The slope of the first plot shows that roughly 13% of the power (not the 15% found in using the reduced Q Pow) into the core results in a reduction of heater power.
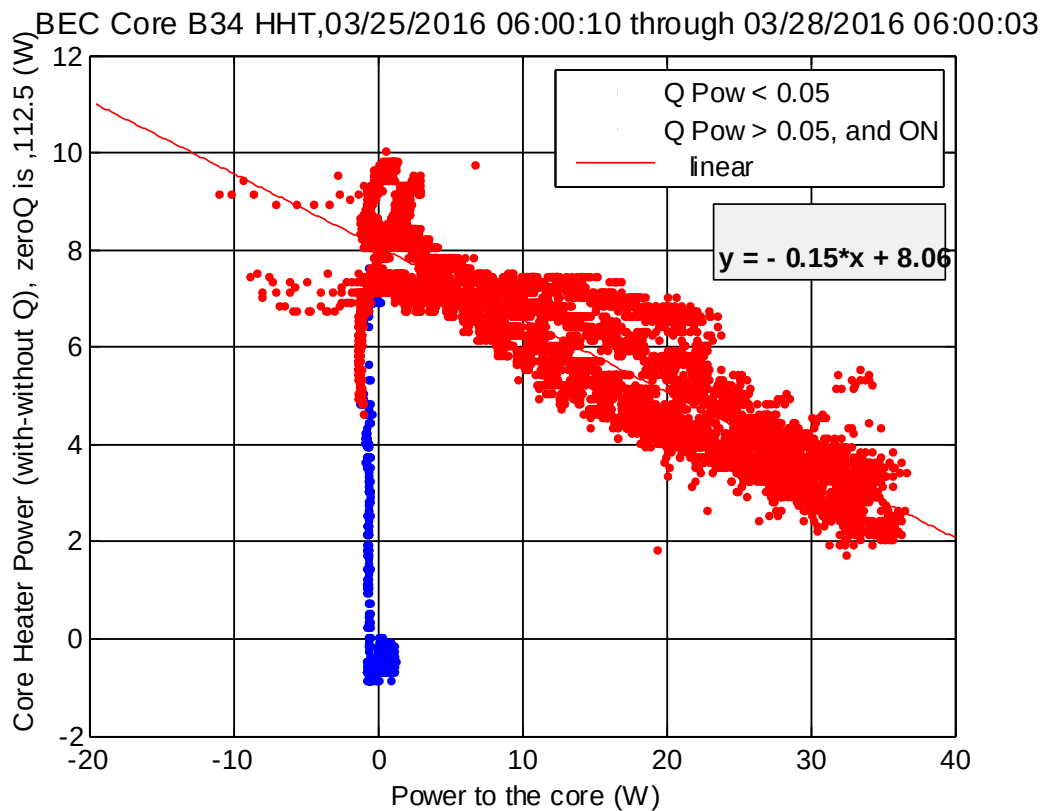
Combining a few of these measurements, here is a graph showing the four Q sequences as a function of time.