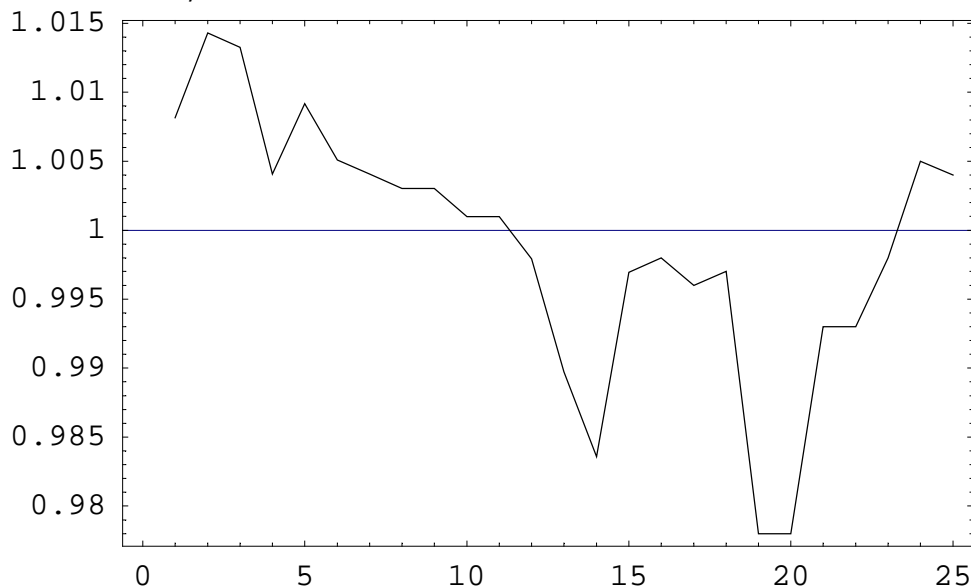


## Calibration of the SBD 6-6-03 AVT

The calibration of the SBD with the dispersion correction and the histogram baseline correction is shown below. The effects of changes of the SBD internal calibration constant, which varied between 1.047 and 1.022 has been corrected to 1.022.

Cal. Constant for SBD for some runs 2447 to 2646  
The internal gain correction has been normalized = 1.022  
Mean=.999,RMS dev=.0094



The mean is .999 and the RMS dev. = .0094.

There is a new variable T:SBDTWG which is the SBD wide gate sum of the proton and pbar currents. If there is no DC beam, this should equal T:IBEAM.

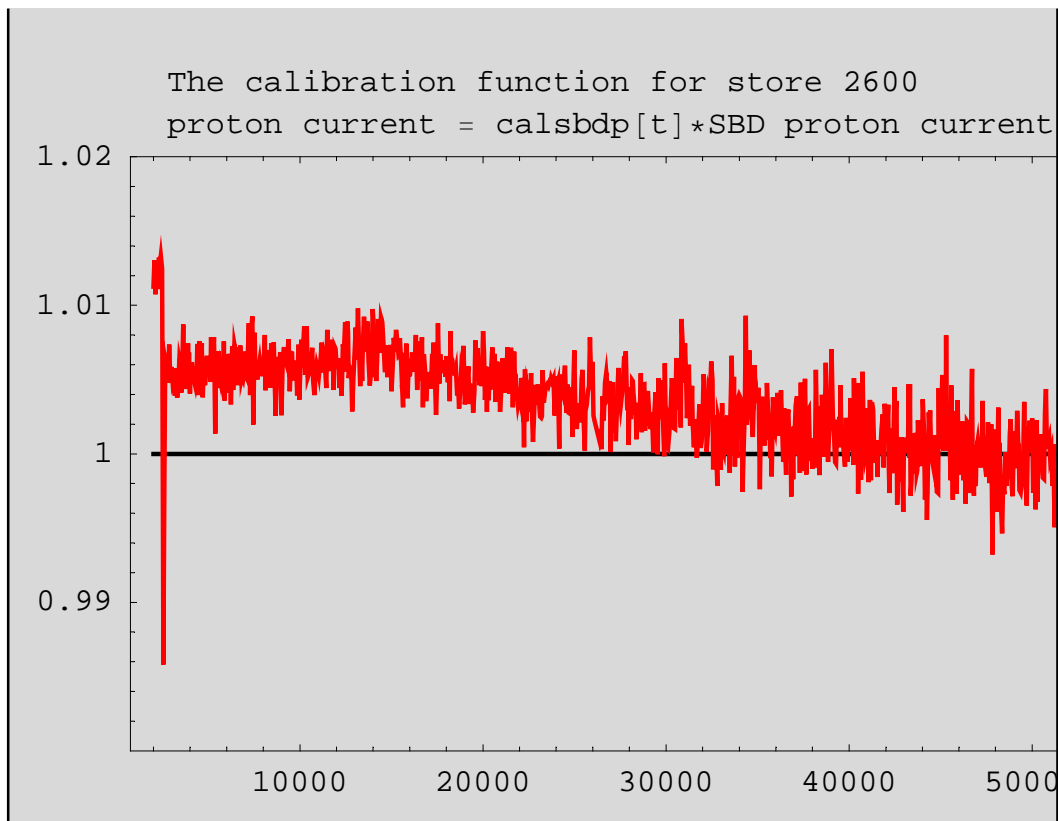
### Comments:

1. At the 1% level, there are changes thru the store. This is not understood yet but is systematic and not random noise.

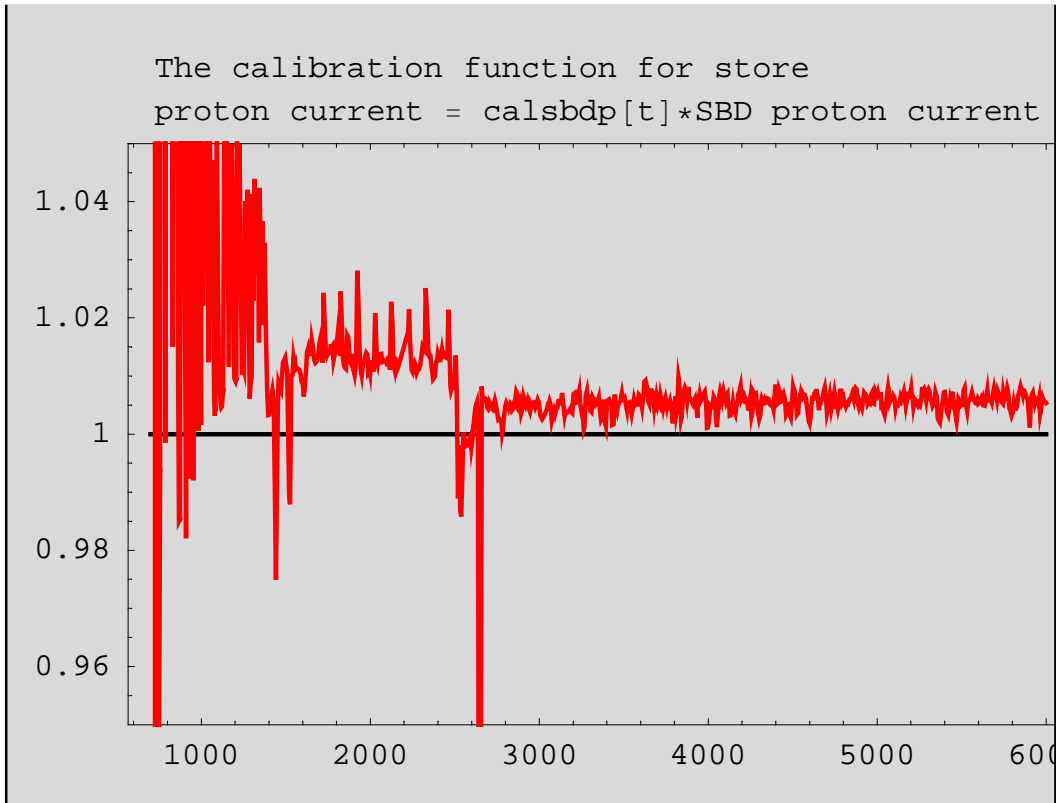
2. Because of the internal calculation in the SBD, the wide gate response can be less than the narrow gate. This effect develops slowly in the store. Consequently satellites are not correctly measured late in the store. Lately, they are also very small.
3. Note that SBDTWG can be used to measure the dc beam during injection.
4. 3 sec sample for now.

The following figures show some of the cal constants during Store 2600

**The Calibration constant for the SBD during Store 2600.**



**Same starting at proton injection and going past acceleration and scraping:**

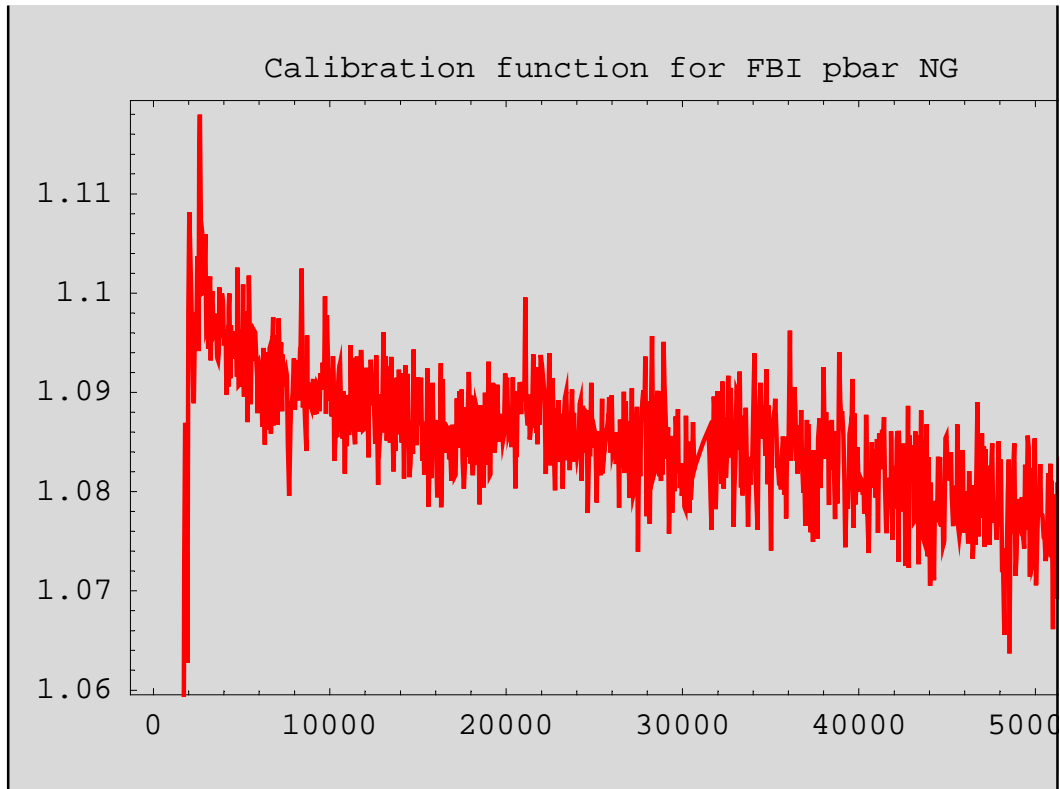


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## FBI calibration

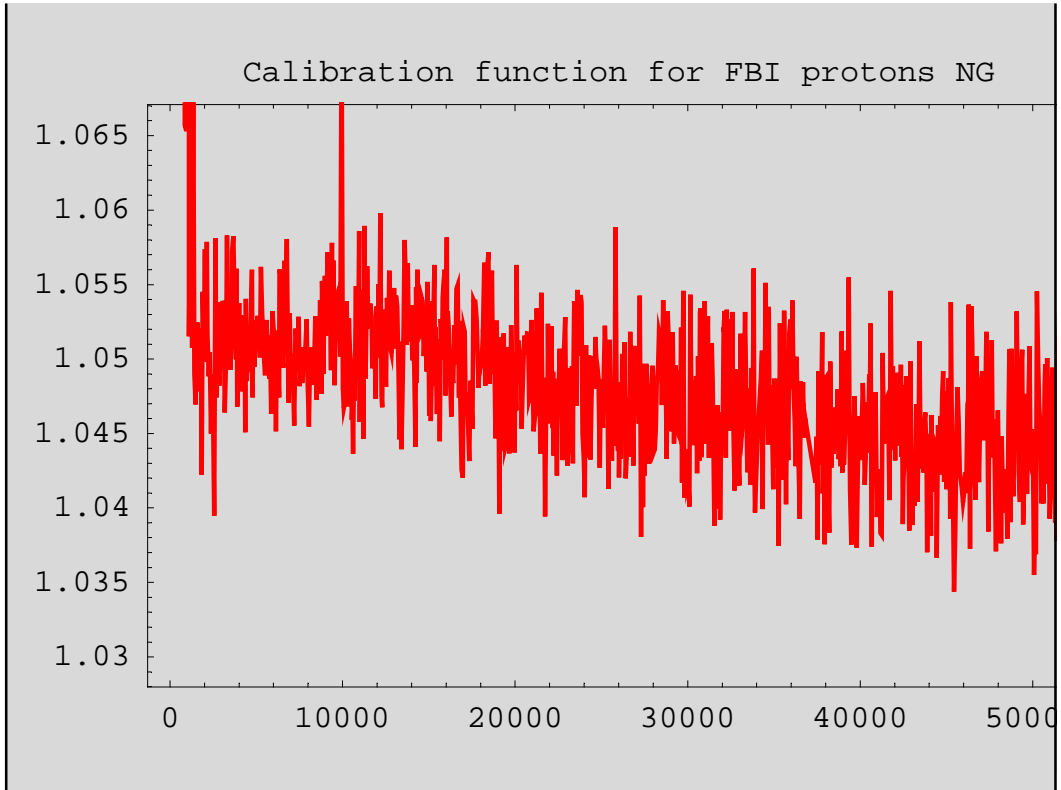
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Pbars:



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## FBI protons



# SBD Sum

