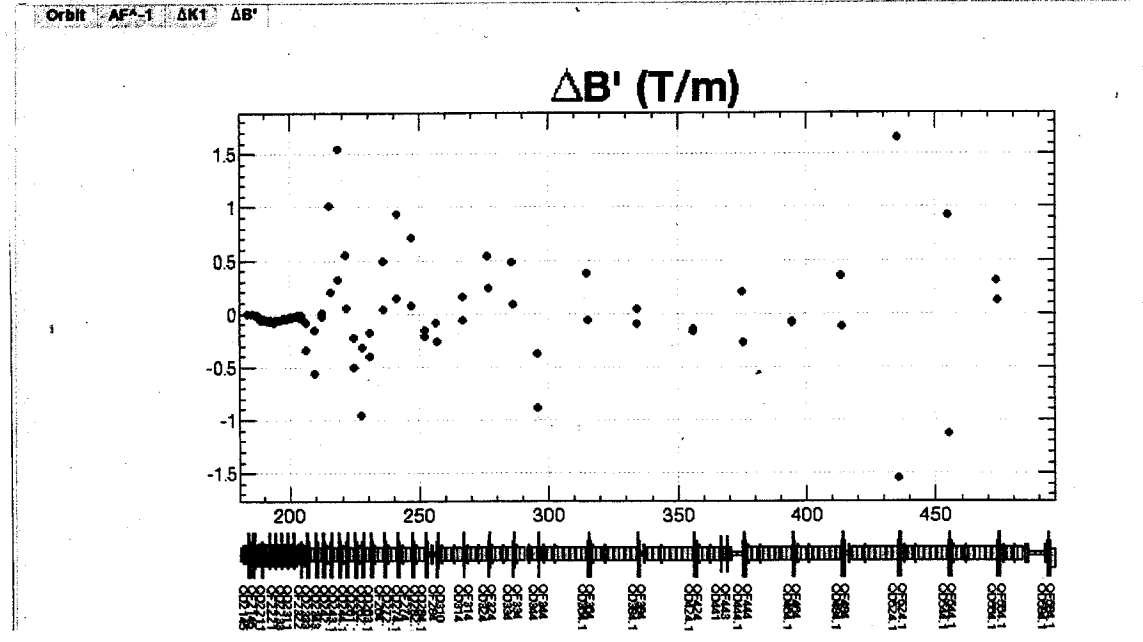
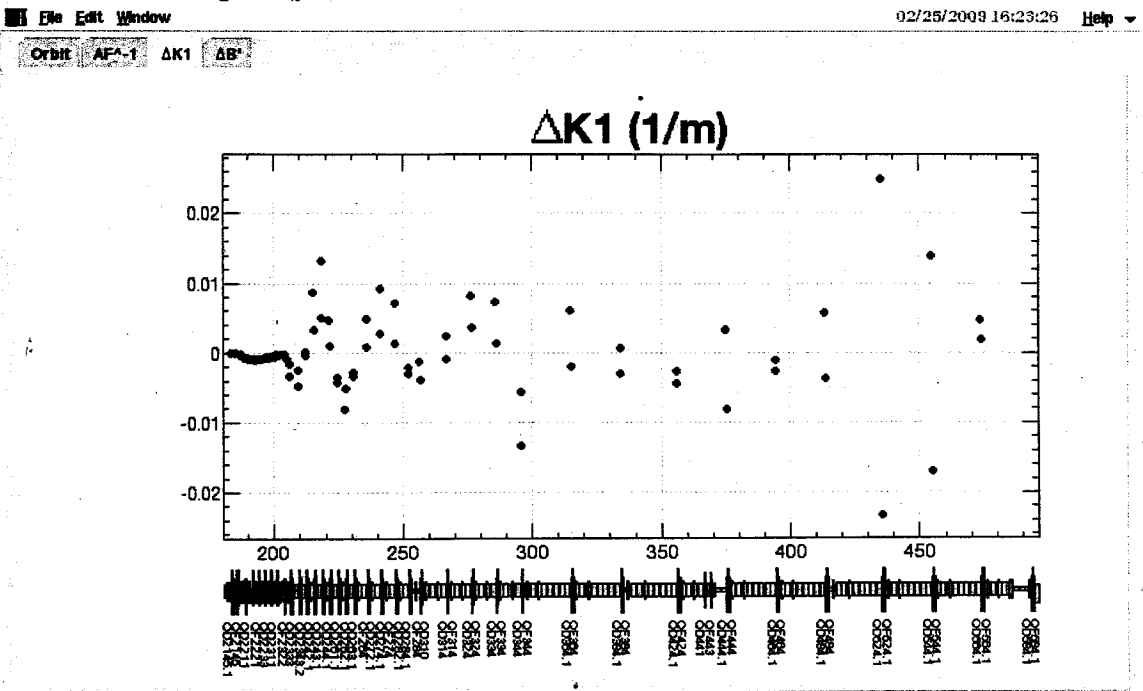
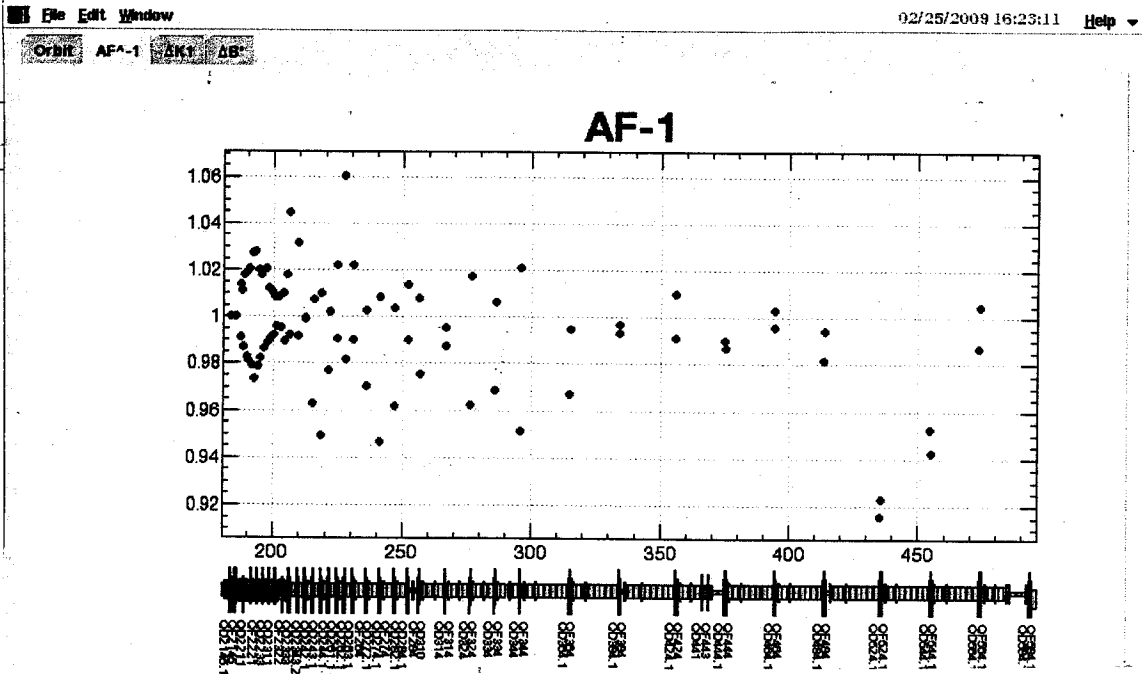


101

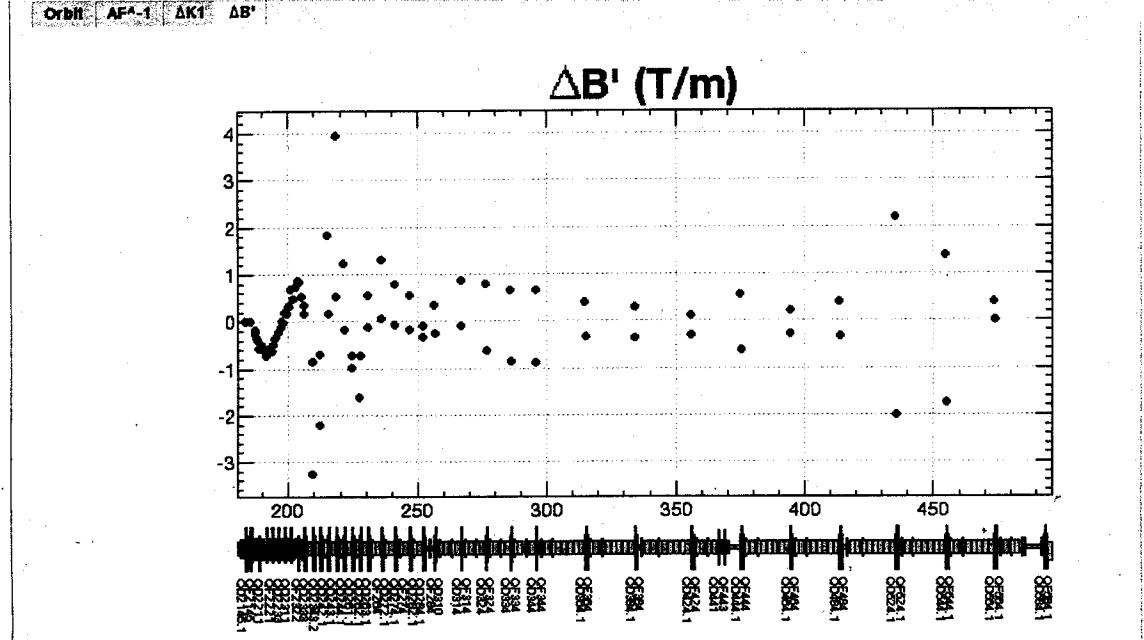
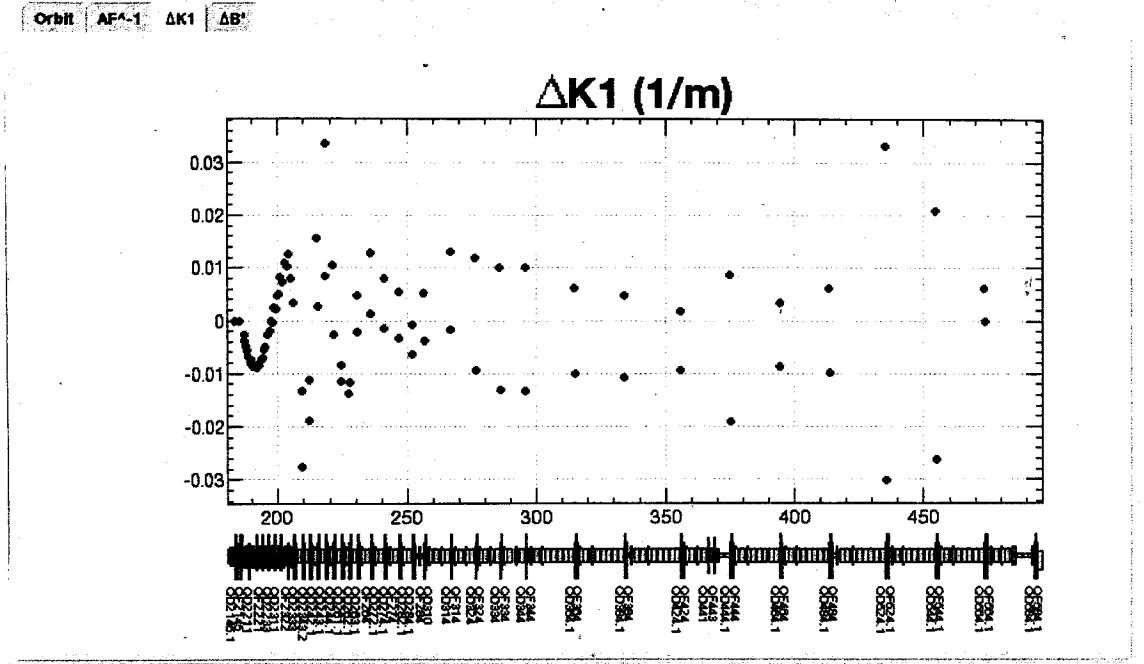
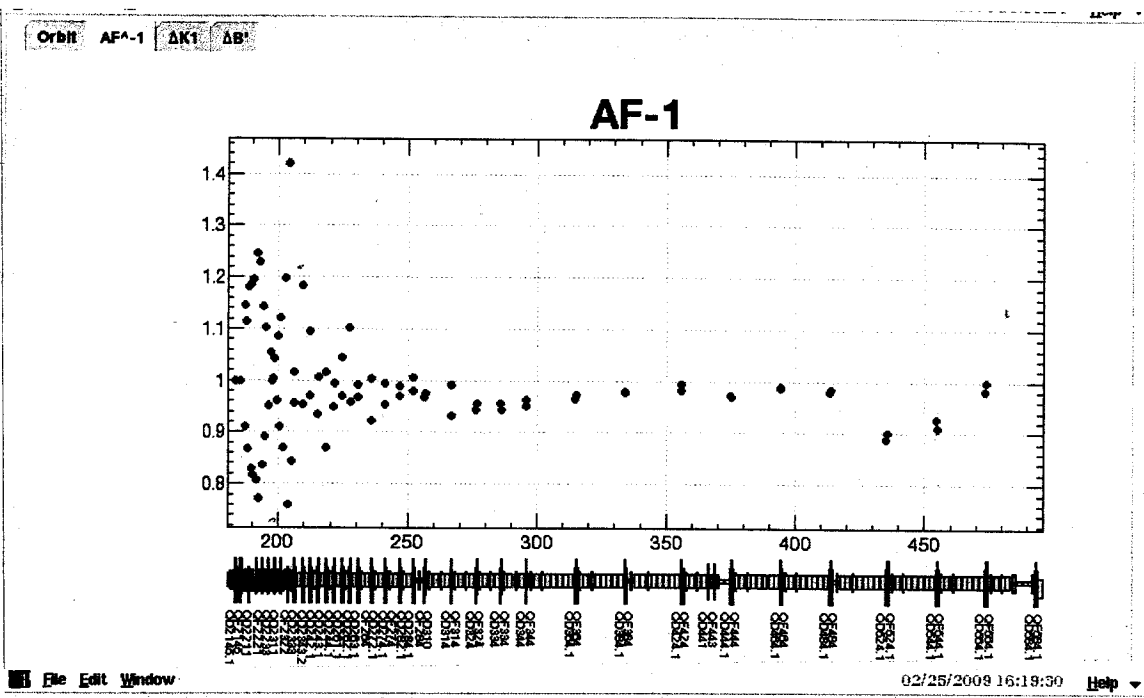
EPS = 0.02

S大の強さを  
目でみて  
決めたい



EPS = 0.01

σの値を  
目で見て  
決めた

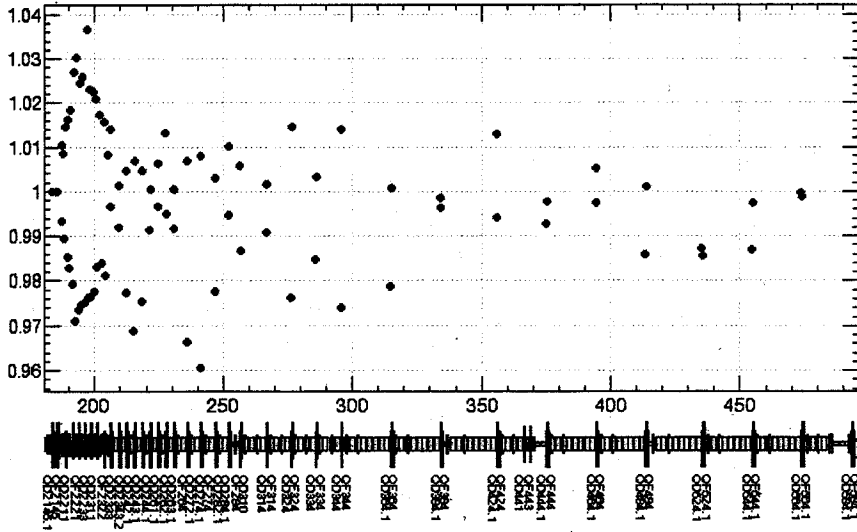


103

EPS = 0.03  
BPM  
58Q E  
除117=

K1 AB'

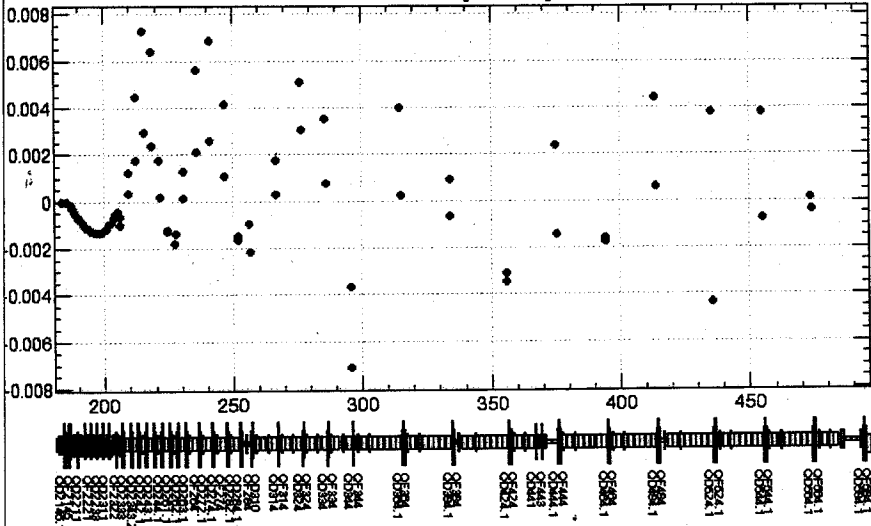
### AF-1



02/25/2009 16:48:51

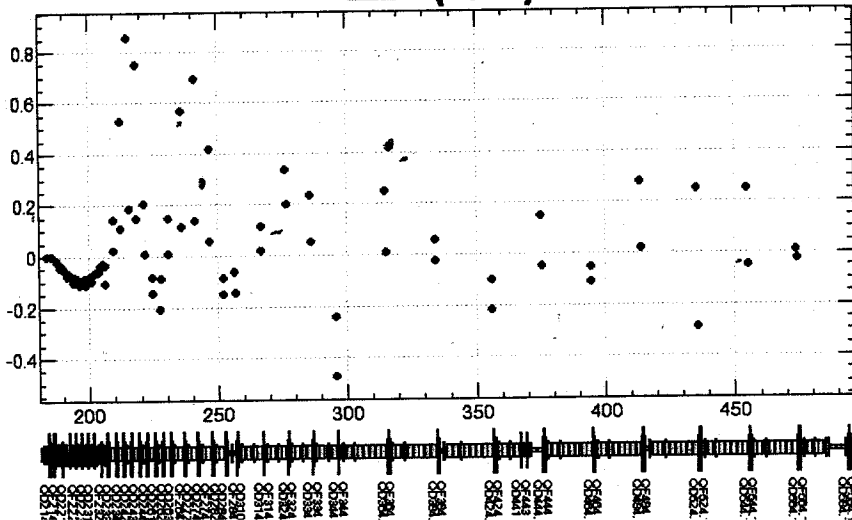
K1 AB'

### $\Delta K1$ (1/m)



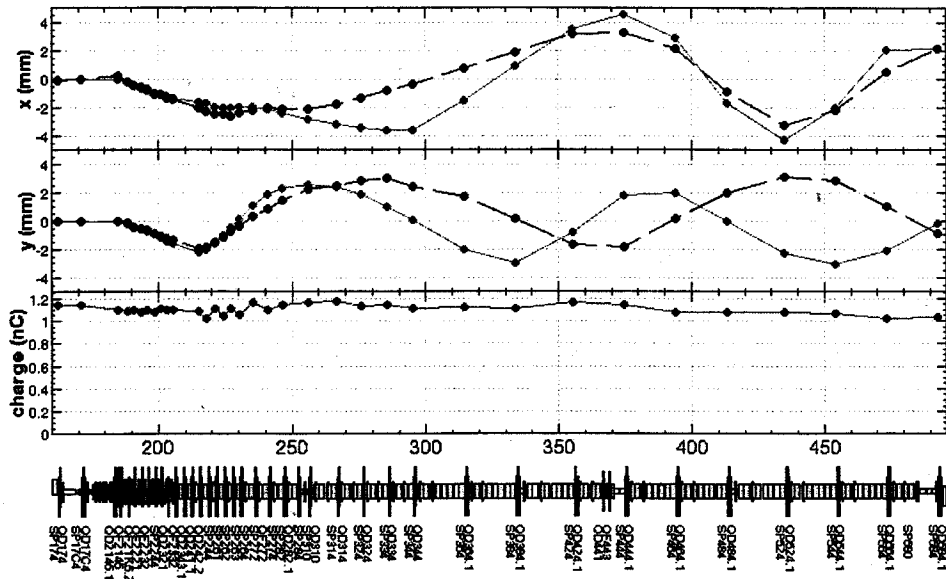
K1 AB'

### $\Delta B'$ (T/m)



EPS =  
0.03

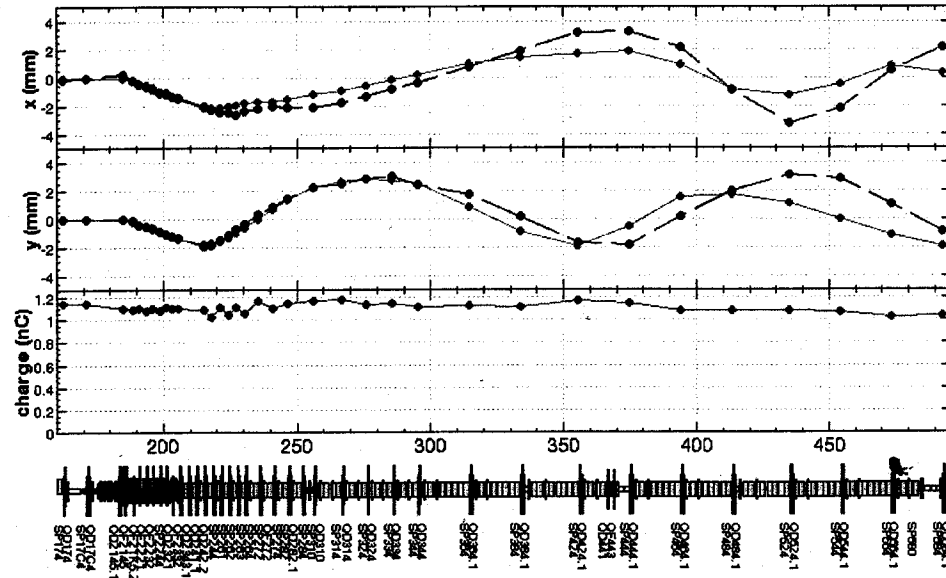
Orbit AFA-1 ΔK1 ΔB'



Read Optics		Steering SX_C1_1		Steering(X) BX21K5		Select Q		Add	
s1(m)	160	Read	K0	8e-05	QDC14	average	EPS	0.0	
s2(m)	500	Set ref	0	Clear	QFC14	x y xy	Calc		
Set ref	I(A)	0	Set		QDC24	Read SPDATA	Show Fudge		
Clear ref	ΔI(A)	0	Steering(Y)	BY21K5	QDC34	5 y	Set Fudge		
Plot orbit	Set		K0	7e-05	QFC34	Plot	Clear Fudge		
File temp.dat	Set ref		Set	Clear	QDC44	Set ref	Create Fudge		
Write DATA					QDC54				
					QFC54				

Open file is /mnt/nadadata1a/users/onishi/cvs-work/LCG/SAD/Library/single-kick/20090225-stb2345/by21k5\_2.dat

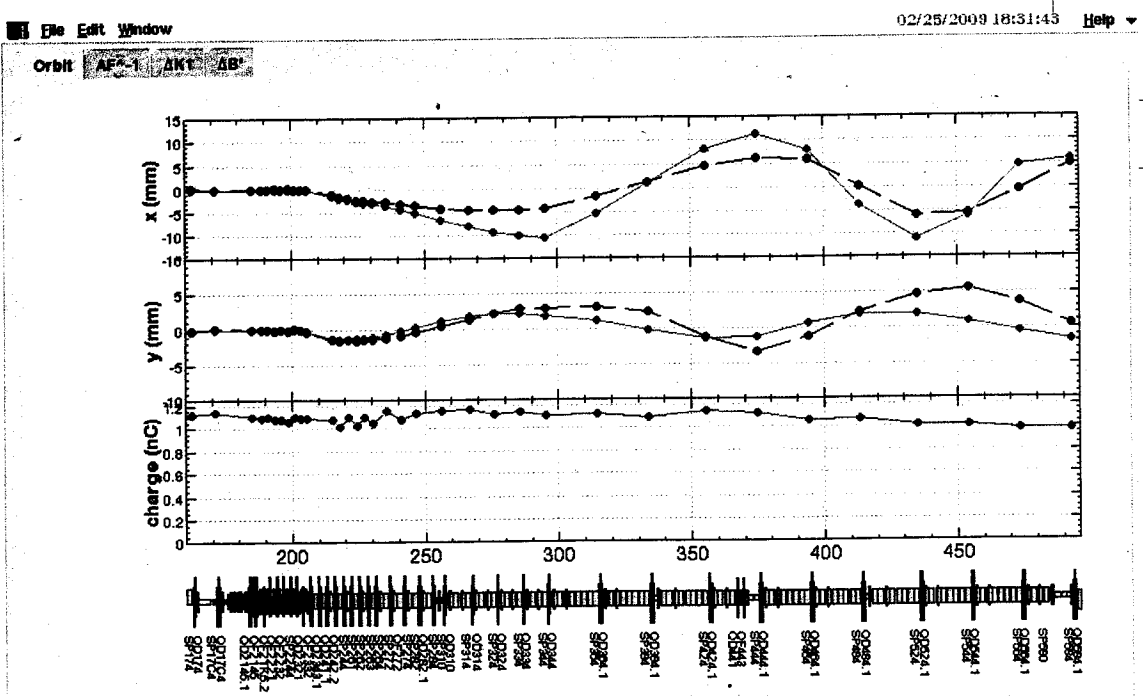
Orbit AFA-1 ΔK1 ΔB'



Read Optics		Steering SX_C1_1		Steering(X) BX21K5		Select Q		Add	
s1(m)	160	Read	K0	8e-05	QDC14	average	EPS	0.0	
s2(m)	500	Set ref	0	Clear	QFC14	x y xy	Calc		
Set ref	I(A)	0	Set		QDC24	Read SPDATA	Show Fudge		
Clear ref	ΔI(A)	0	Steering(Y)	BY21K5	QDC34	5 y	Set Fudge		
Plot orbit	Set		K0	7e-05	QFC34	Plot	Clear Fudge		
File temp.dat	Set ref		Set	Clear	QDC44	Set ref	Create Fudge		
Write DATA					QDC54				
					QFC54				

Open file is /mnt/nadadata1a/users/onishi/cvs-work/LCG/SAD/Library/single-kick/20090225-stb2345/by21k5\_2.dat

Fudge factor E  
model 1 =  
2/13



Read Optics

s1(m) 160 Steering SX\_C1\_1 Steering(X) BX234  
 s2(m) 500 Read KO .00013001  
 Set ref I(A) 0 Set Clear  
 Clear ref ΔI(A) 0 Steering(Y) BY234  
 Plot orbit Set KO .00013 Clear  
 File temp.dat Set ref Set Set Clear  
 Write DATA

Select Q

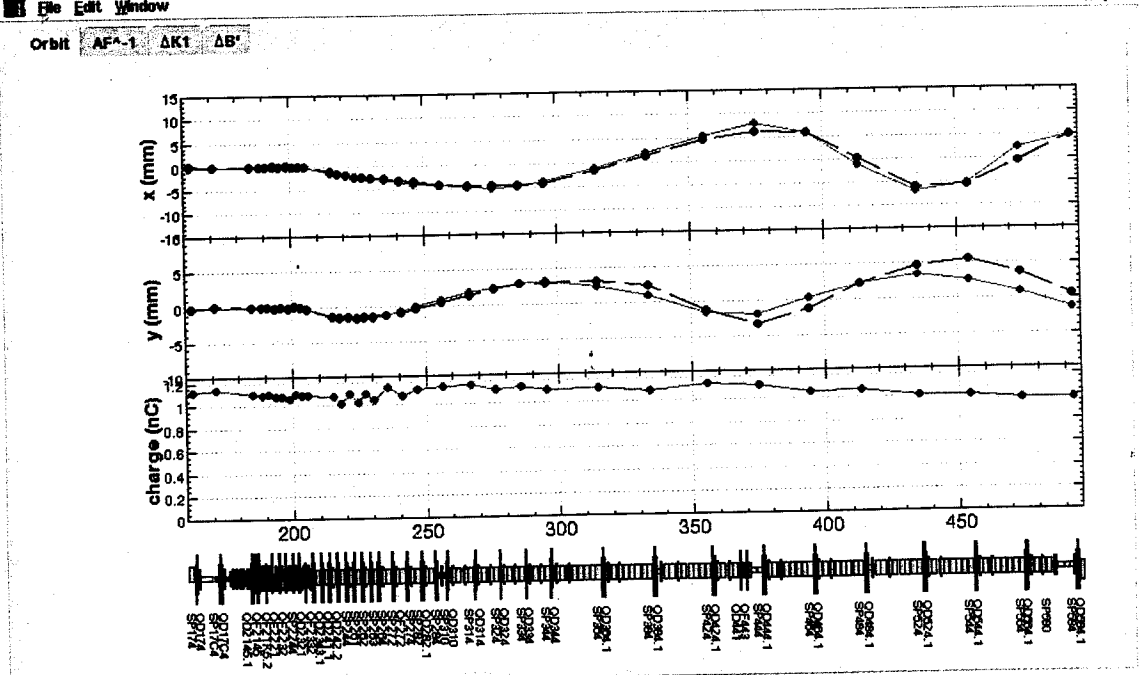
QDC14  
 QFC14  
 QDC24  
 QFC24  
 QDC34  
 QFC34  
 QDC44  
 QFC44  
 QDC54  
 QFC54

average x y xy  
 Read SPDATA  
 Set ref x 15 y 10  
 Plot  
 Set ref

Add EPS .03  
 Calc  
 Show Fudge  
 Set Fudge  
 Clear Fudge  
 Create Fudge

Open file is /mnt/nadatal/users/onishicvs-work/LCG/SAD/Library/single-kick/20090225-stb2345/by234\_2.dat

model =  
 F.F. 2  
 x 234



Read Optics

s1(m) 160 Steering SX\_C1\_1 Steering(X) BX234  
 s2(m) 500 Read KO .00014  
 Set ref I(A) 0 Set Clear  
 Clear ref ΔI(A) 0 Steering(Y) BY234  
 Plot orbit Set KO .00012 Clear  
 File temp.dat Set ref Set Set Clear  
 Write DATA

Select Q

QDC14  
 QFC14  
 QDC24  
 QFC24  
 QDC34  
 QFC34  
 QDC44  
 QFC44  
 QDC54  
 QFC54

average x y xy  
 Read SPDATA  
 Set ref x 15 y 10  
 Plot  
 Set ref

Add EPS .03  
 Calc  
 Show Fudge  
 Set Fudge  
 Clear Fudge  
 Create Fudge

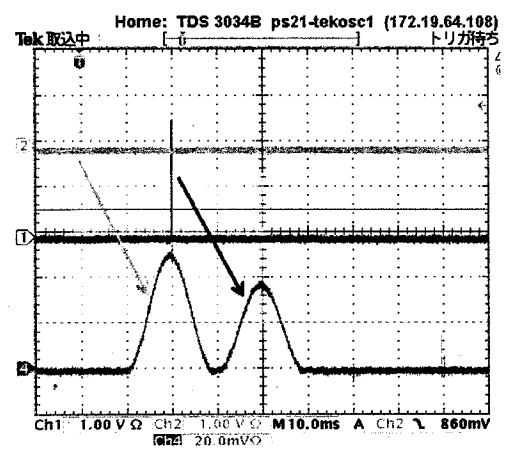
Open file is /mnt/nadatal/users/onishicvs-work/LCG/SAD/Library/single-kick/20090225-stb2345/by234\_2.dat

### ③ Pulse steering 2段階化 test with beam

e- trigger

e+ trigger

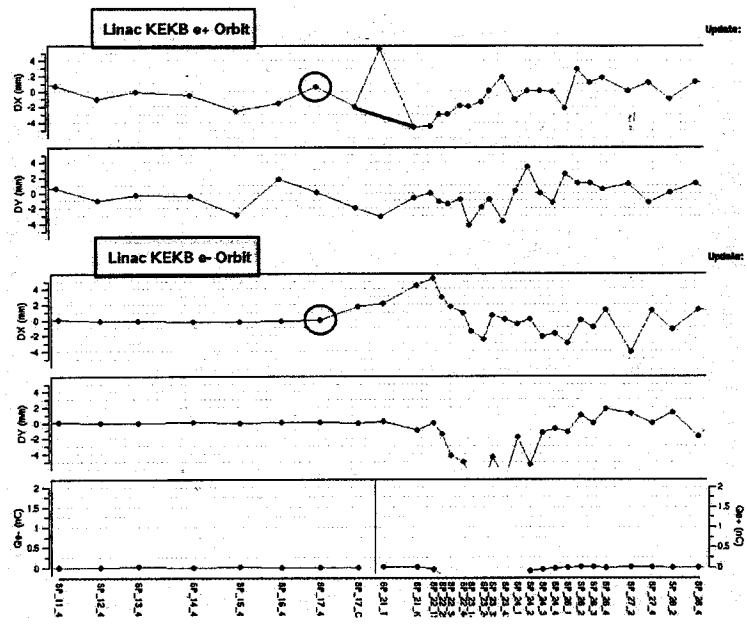
PX電源の  
出力電流



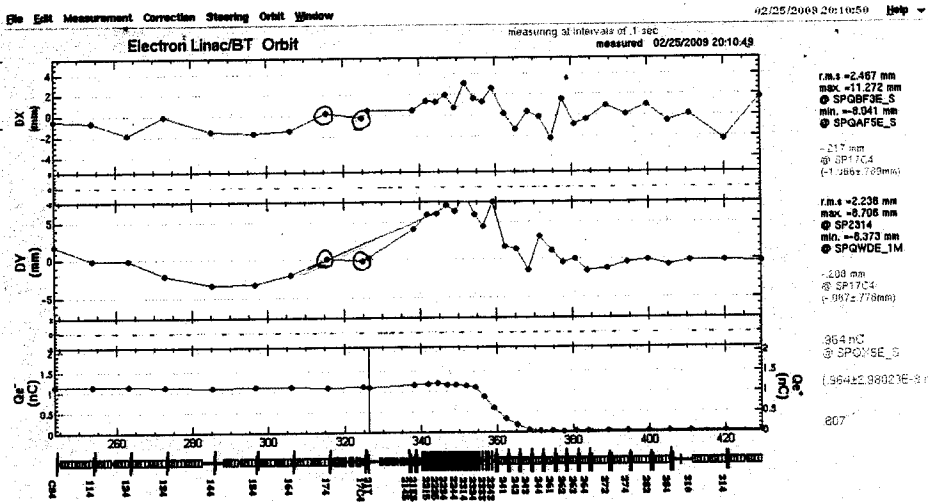
20ms

PX\_17\_C1: -2A

PX\_17\_C1: +2A



Tolerance  $\pm 0.01, 0.02$  の計算もあつた。  
 • QM 1 が新機にかつて測定してあつたか？



◎ Ballistic Orbit 測定

何故か、V. 方向に軌道が曲る。

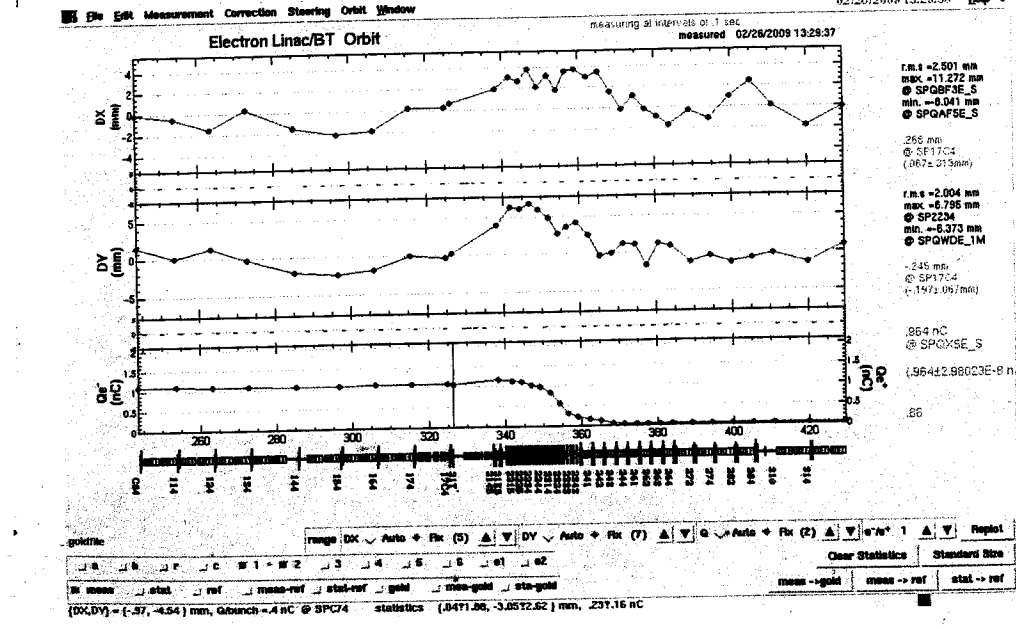
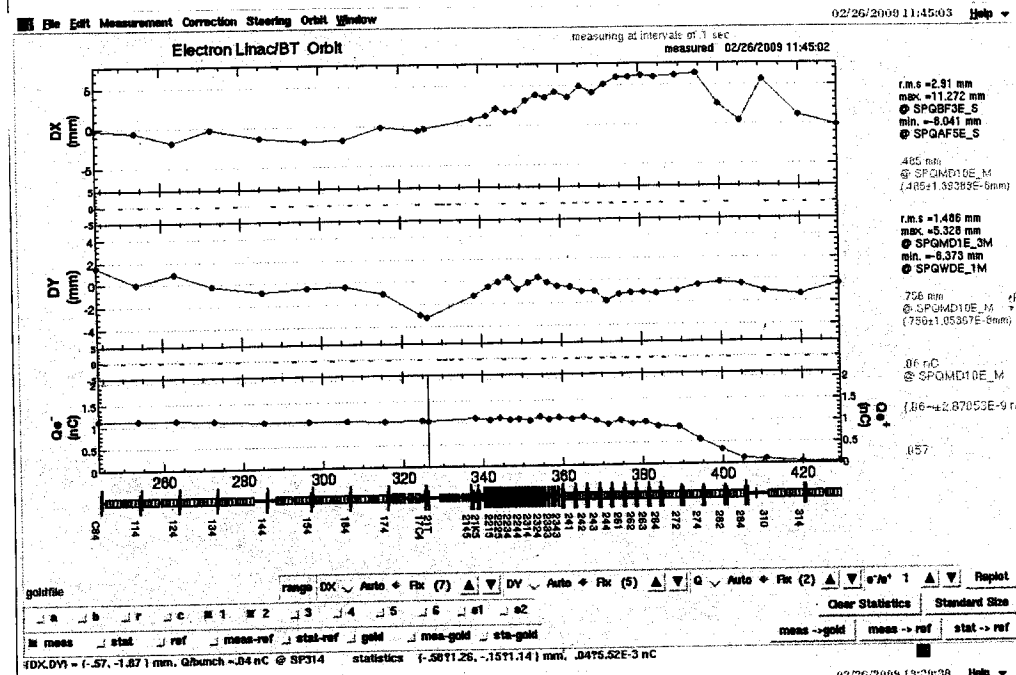
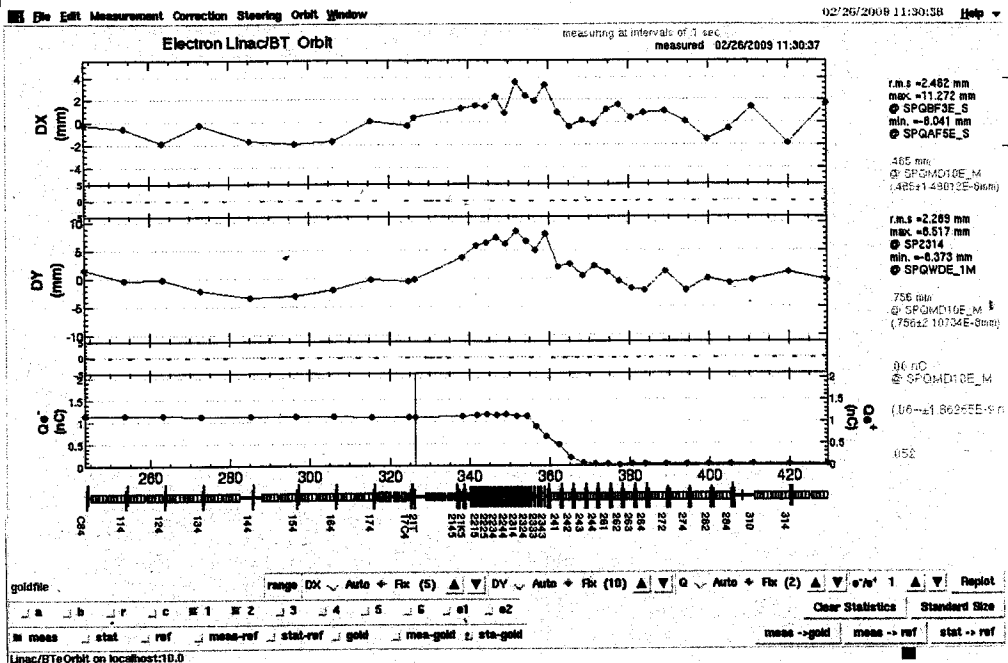
- ・ 174 と 17C4 の間の St. を off.
- ・ 2079- の Q. St. Pulse coil, Solenoid off
- ・ 2079- 以降 Stb. 400V Beam.

→ Energy を下げて再測定可也。

V. 軌道を通じ、H. 軌道を通す可也。

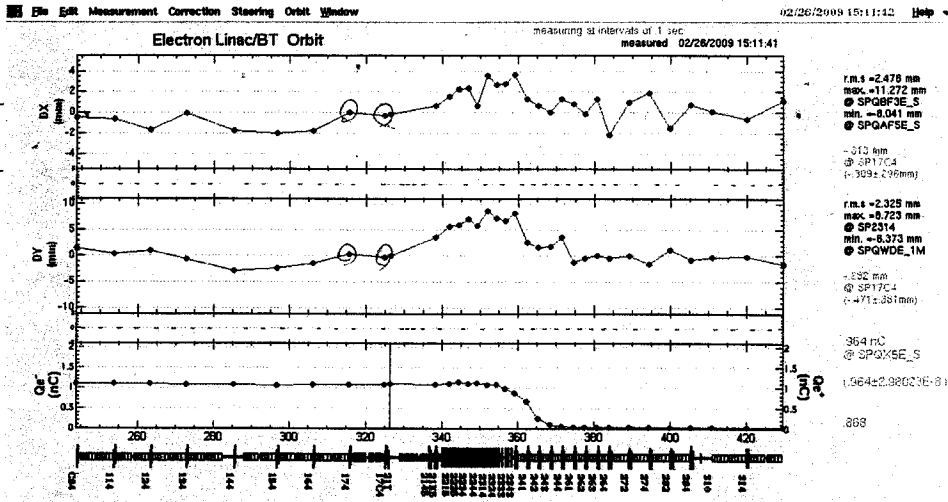
◎ QA 2215 DAC の A 端子に、ADC ~ 2A

→ PLC Reset じ、ADC の DAC と一致した。



1 section All  
Klystron STB





2077-4P降  
KLY Stb.

← 2nd reference = 2nd

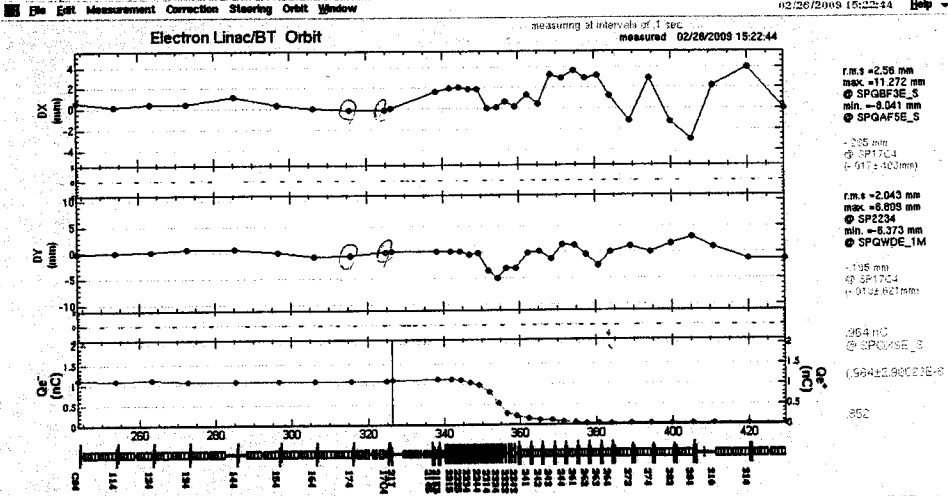
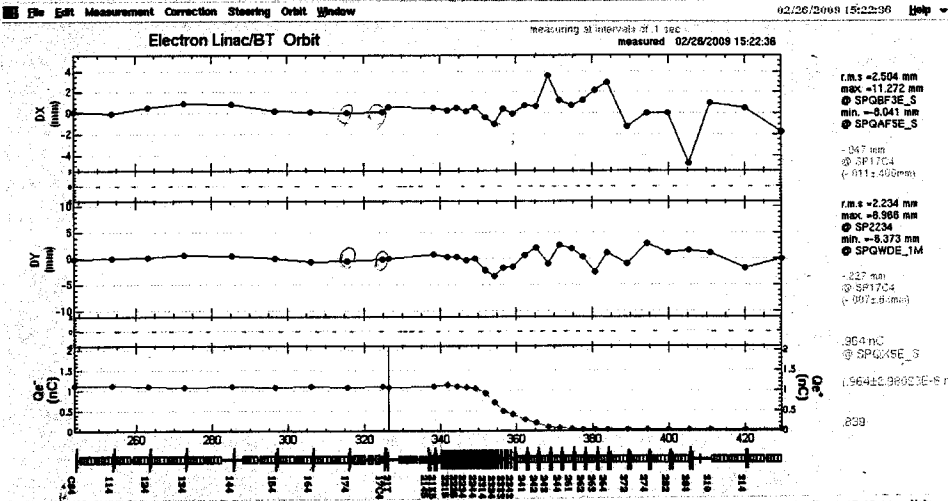
~4 GeV

↑ 1.4倍

1099-E  
KLY Stb

~2.8 GeV

meas-ref.



エネルギー  
変化した  
変化した。

軌道自体が  
変動して  
いるらしい。

