

First Alignment of Downstream ATF2 magnets QEA-mag and DEA-mag

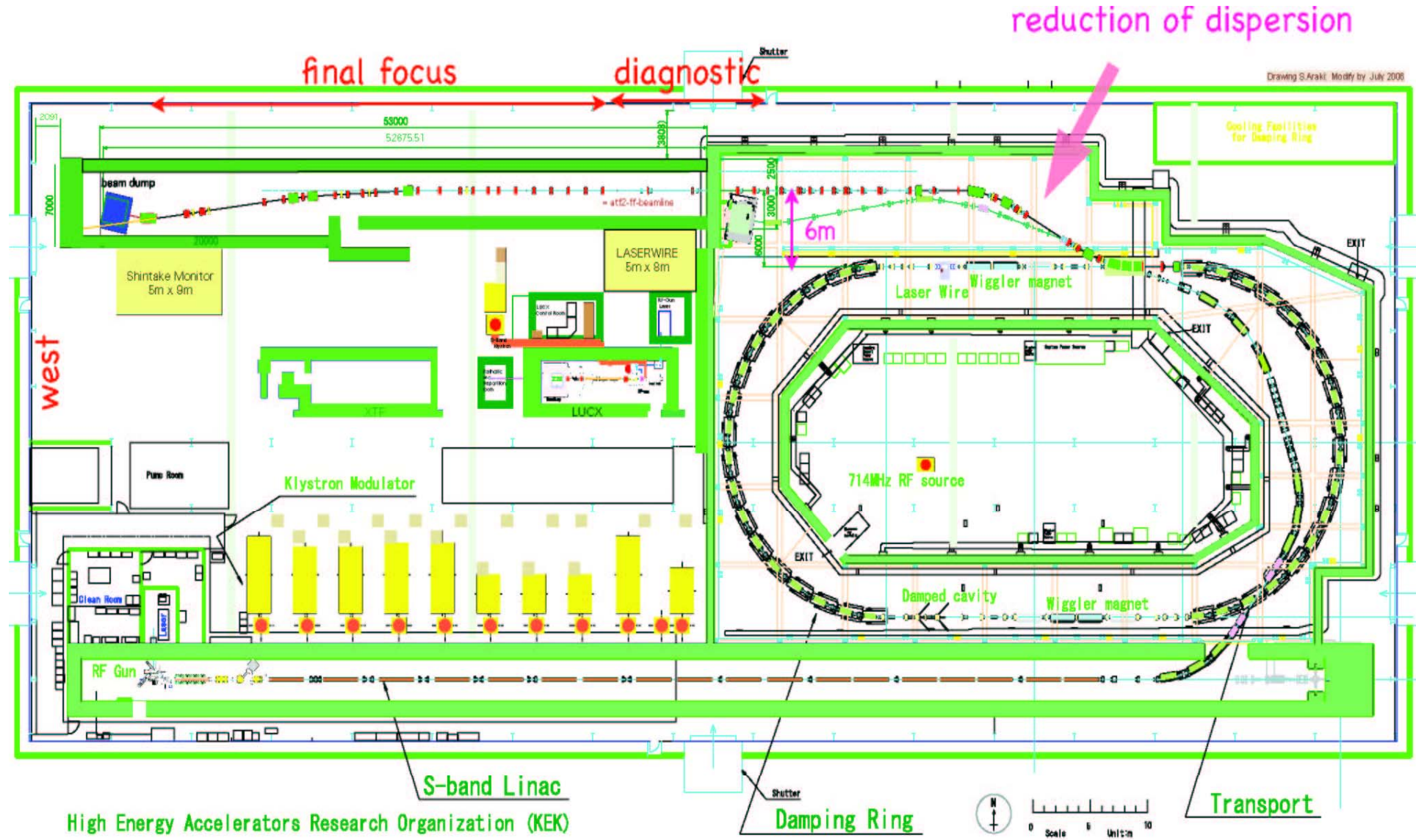
August 19 - 27, 2008

R. Sugahara (KEK)

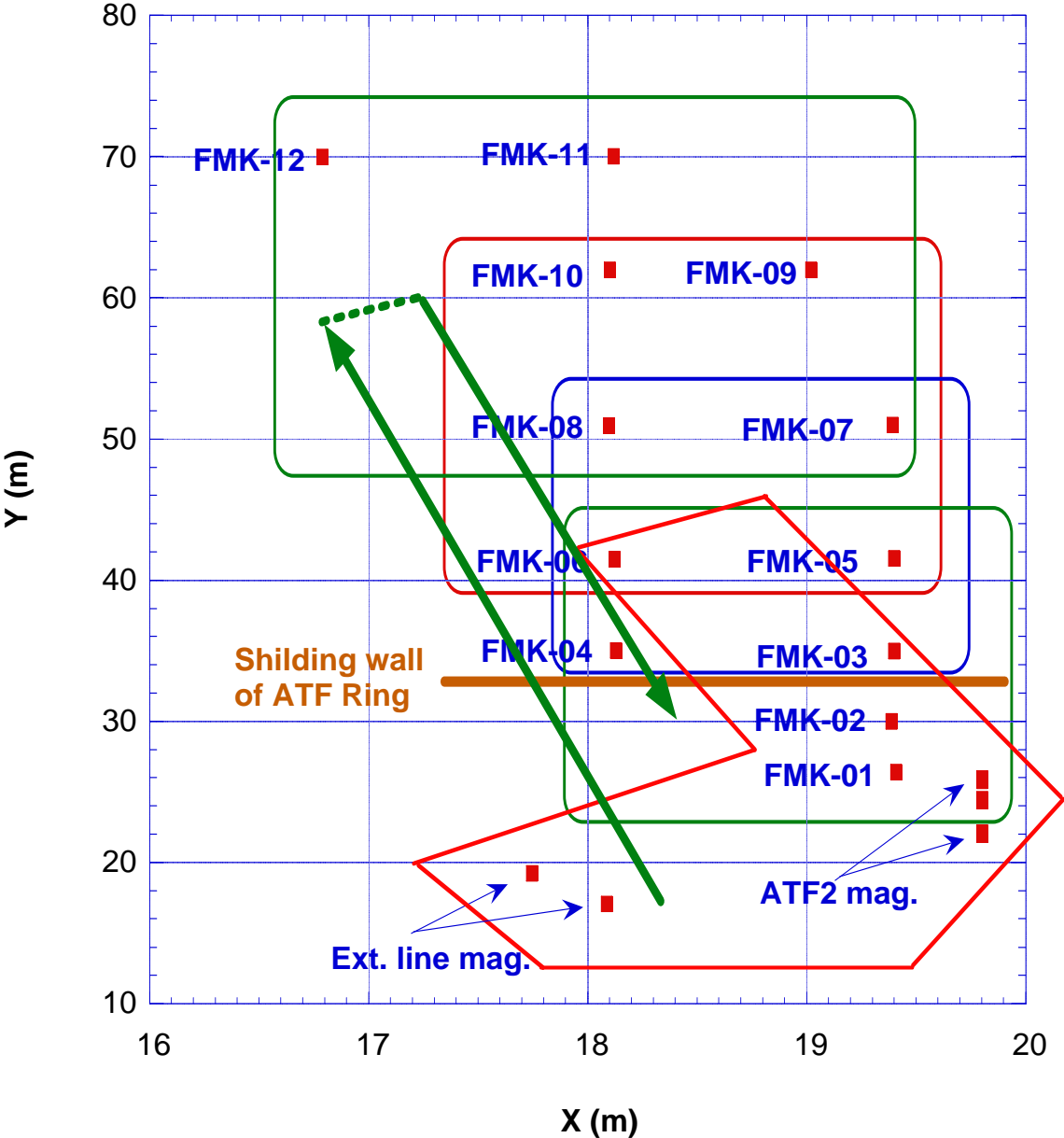
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[Asist Engineering] K. Nakamura
[Esu-Kei Service] S. Kato, T. Matsui, Mizuno

- Alignment of upstream magnets will follow early September
- Second alignment (smoothing) is scheduled in late September

ATF-ring and ATF2 Beam Line



Layout of Floor Markers

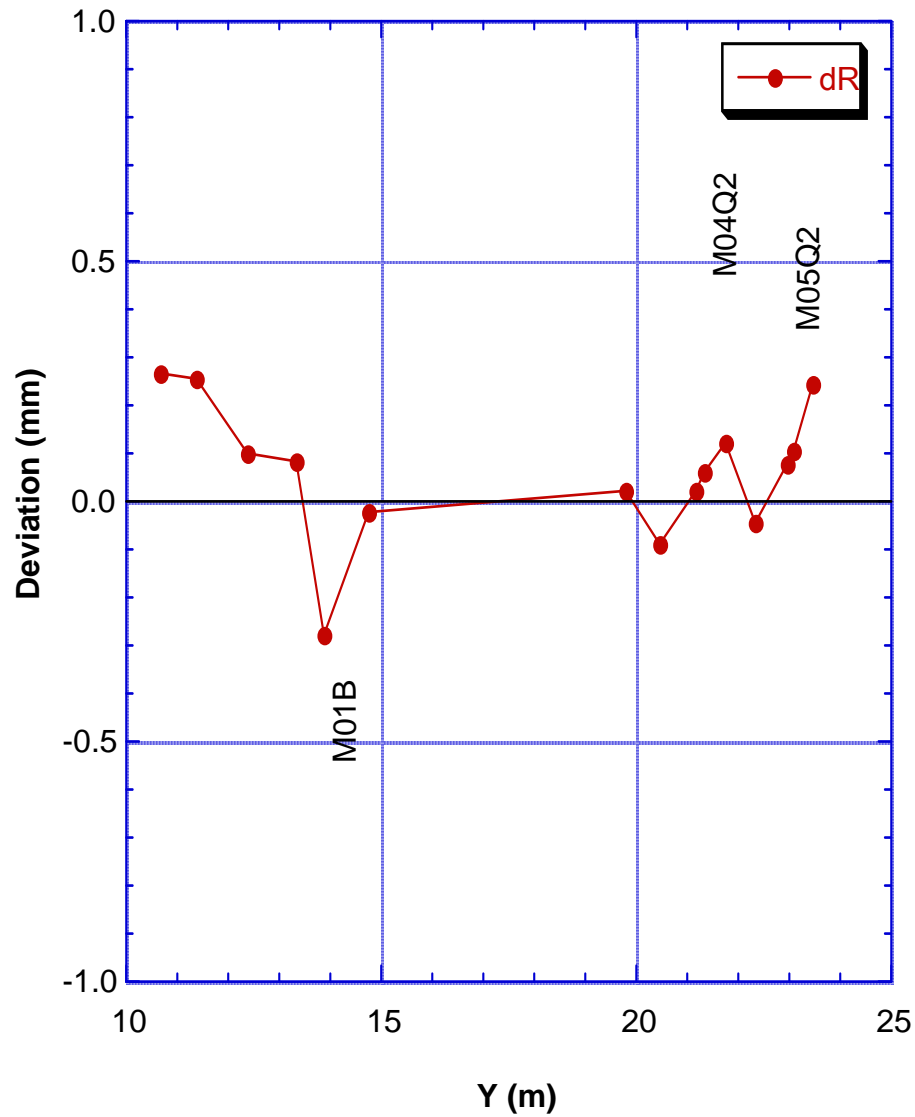




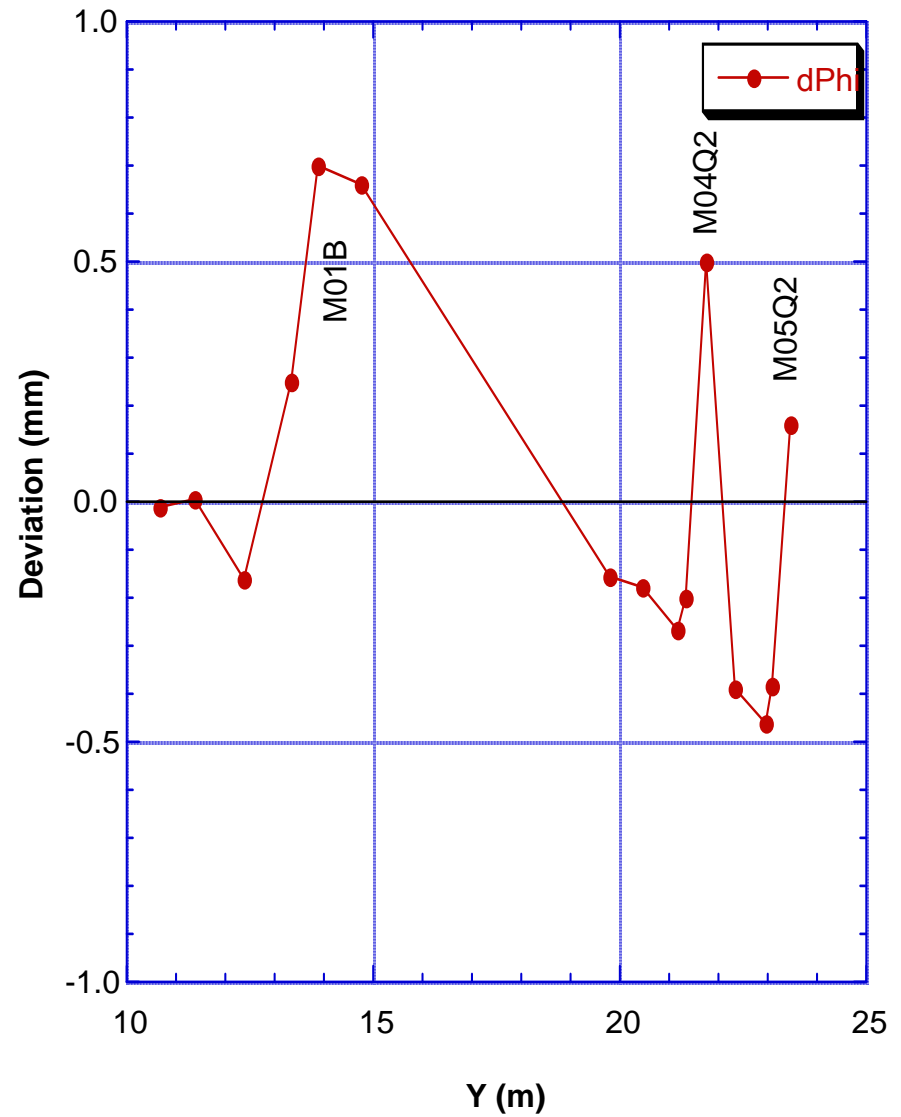
QEA-magnets have to be corrected for their offsets in position and roll found in the field measurement at KEK!

Mag ID	QEA#	dX	dY	Rotation
QM14x	01	0.36	0.07	-0.072
QM15x	02	-0.45	-0.18	-1.062
QD16X	03	-0.39	-0.09	-0.652
QM11x	04	0.07	0.17	0.364
QM13x	05	-0.05	-0.29	-0.092
QF17X	06	0.06	-0.32	0.028
Spare	07	0.01	-0.13	-0.052
QD18X	08	-0.41	0.00	0.068
QM16x	09	-0.02	-0.07	0.348
QF19X	10	0.02	-0.01	0.018
QF11X	11	0.03	-0.12	0.068
QD10X	12	0.03	-0.13	-1.122
Ring:QM12R.1	13	-0.05	0.10	0.698
Ring:QM12R.2	14	0.33	0.04	0.568
QM12x	15	0.10	0.12	-0.042
QD12X	16	-0.12	0.21	-0.192
Ring:QM13R.2	17	0.11	0.04	0.578
Ring:QM14R.2	18	-0.37	0.12	-0.952
Ring:QM13R.1	19	-0.04	-0.23	0.448
QD8xx	20	-1.04	-0.16	-0.582
Ring:QM14R.1	21	-0.13	0.13	0.668
QD10A	22	0.09	0.00	-0.372
QF9Bx	23	0.01	-0.02	0.248
QF9Ax	24	-0.08	0.19	1.108
QD10B	25	0.22	-0.32	0.478
QD6xx	26	0.01	-0.11	1.828
QF7xx	27	0.94	-0.15	-0.712
QF5Ax	28	-0.14	-0.30	-1.062
QF5Bx	29	0.27	-0.09	-0.702
QD4Ax	30	0.08	0.02	-0.841
QF3xx	31	0.13	-0.28	1.296
QD2Ax	32	-0.08	-0.17	1.638
QD4Bx	33	0.73	-0.16	-1.671
QD2Bx	34	-0.36	0.00	1.642

Deviation from Lattice Coordinate of Ring Magnet:
In the Direction Perpendicular to the Beam



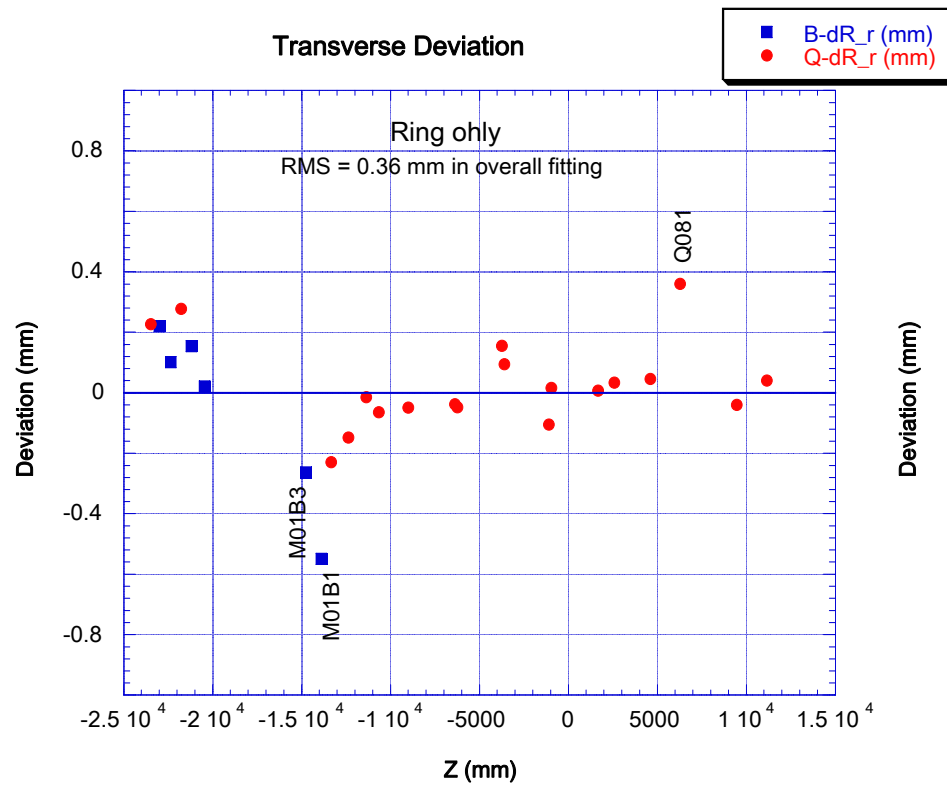
Deviation from Lattice Coordinate of Ring Magnet:
In the direction along the Beam



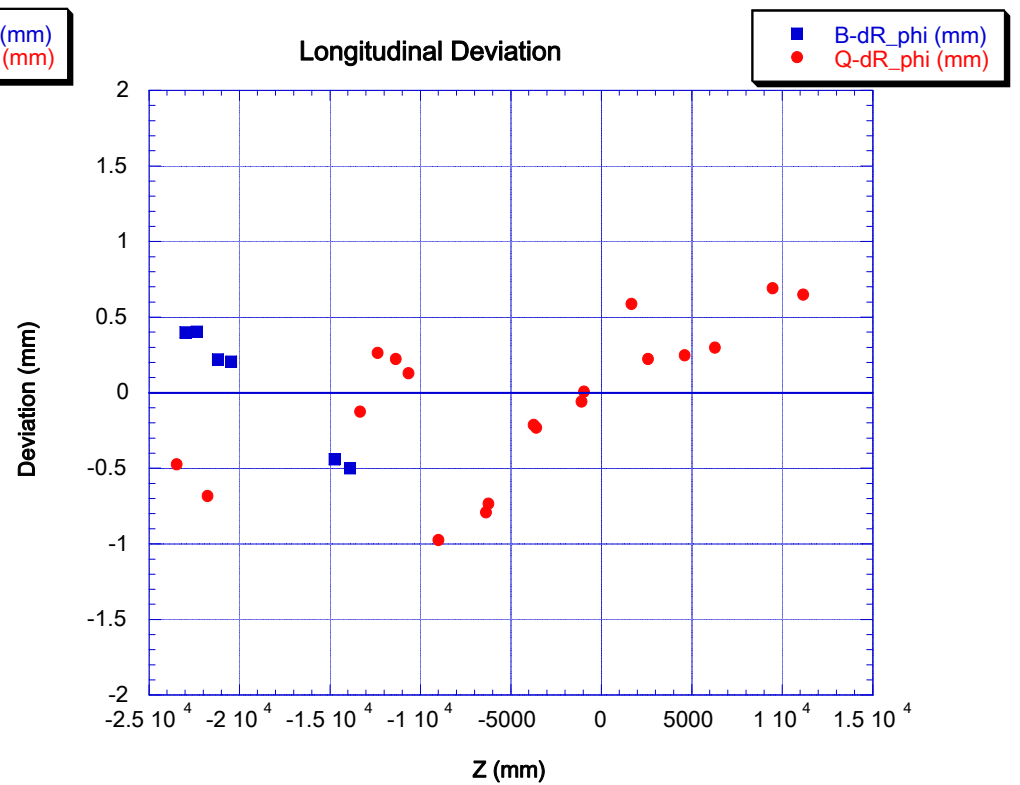
Survey in Feb. 2007

Ring Magnet Only (RMS = 0.36mm in Fitting)

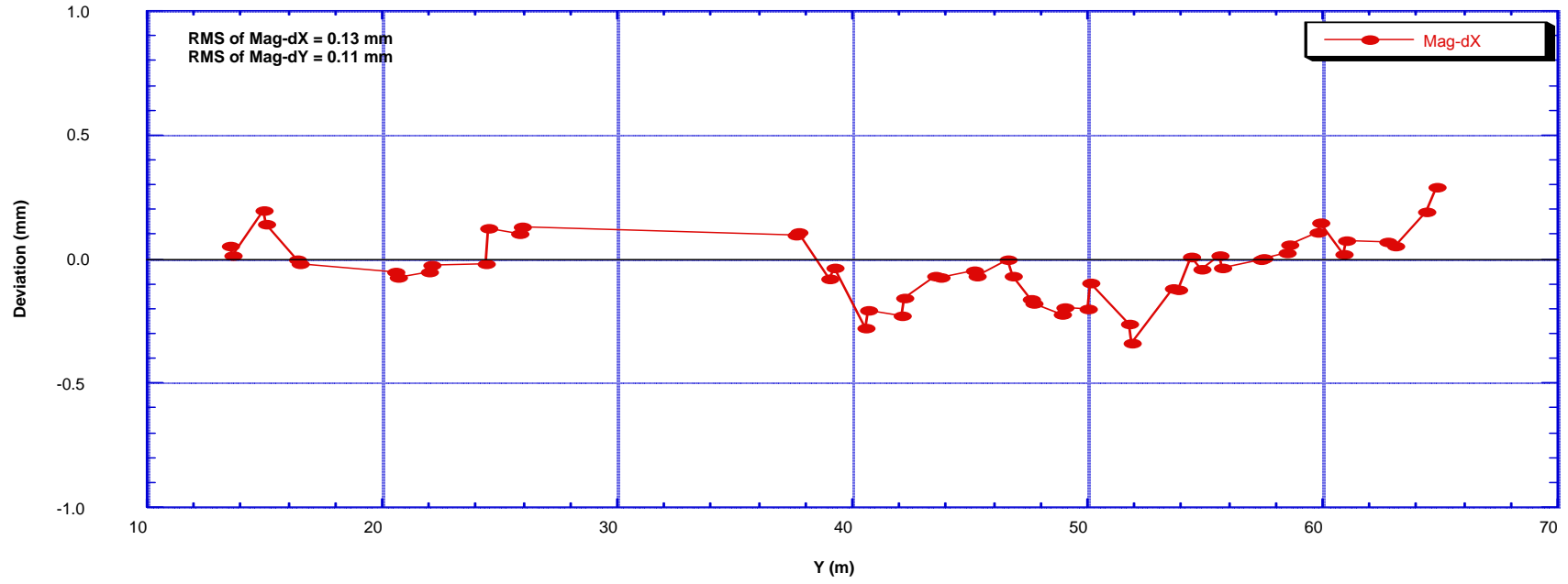
Perpendicular to the beam



Along the beam



Alignment Results 2008.08.27



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