



# Jefferson Lab Alignment Group

## Data Transmittal

**TO:** M. Spata, R. Kazimi, S. Suhring, J. Grames

**DATE:** 26 Jun 2006

**FROM:** Kelly Tremblay

**Checked:**(JCD original)

**# :** L1065

**DETAILS:**

Data : m:\align\data\step2b\inj\060622a ; inj\060615a & inj\060615b

The 5 MeV line, Injector Mott Polarimeter line, IBC0L02 and MBL0L02 were surveyed on June 16<sup>th</sup> and June 22<sup>nd</sup> 2006. Additionally, various flanges were located in the area. See the accompanying sketch on page 2. The 1<sup>st</sup> set of data below show the z dimension relative to the machine coordinate system (meters), and the x and y values transverse to beam in millimeters. A positive x is beam left of design, and a positive y is high above design beam. The 2<sup>nd</sup> set of data are in machine coordinates, as no ideal data is available to determine the positions relative to a designed value. Where shown, Yaw and Pitch are in degrees, relative to the overall machine coordinate system. MBL0L02's position is relative to the geometric (mechanical) center.

Component	z (M)	dx (mm)	dy (mm)	Yaw (deg)	Pitch (deg)
IPM0L02	-244.7268	0.3	0.8	0.0075	-0.1030
FLG1	-244.2565	-0.5	1.3		
FLG2	-244.1428	-0.1	0.4		
IBC0L02	-243.9296	-0.2	0.1	0.0060	-0.1240
FLG3	-243.7173	1.5	-1.0		
FLG4	-243.5424	1.9	-0.2		
FLG5	-243.4487	1.7	0.2		
FLG6	-243.3486	1.0	0.5		
FLG7	-242.9937	-0.1	1.1		

Machine Coords	z (M)	x (M)	y (M)	Yaw (deg)	Pitch (deg)
MBL0L02	-243.2618	80.6131	100.0005	14.926	-0.056
FLG8	-242.9524	80.6653	100.0011		
FLG9	-242.9891	80.7554	99.9994		
IPM2D00	-240.4996	82.1935	99.9998	29.902	0.441
IHA2D00	-240.3586	82.2755	99.9998	30.645	-0.211
ITV2D00	-240.2490	82.3393	99.9999	29.938	0.451

The following encoder values for harp IHA2D00 are based on the above center coordinate:

Station	Encoder Reading	Caliper Reading
Horizontal Wire	6.0765	102.18
Vertical Wire	3.456	128.56
45 degree wire	4.810	115.06

