



# Jefferson Lab Alignment Group

## Data Transmittal

**TO:** Reza Kazimi, Arne Freyberger

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**Checked:** (cjc)

**# :** L1410

**DETAILS:**

data: step2b\inj\110912a

The results of the Sep, 12<sup>th</sup>, 2011 survey of the 45 MeV spectrometer components are given below. The as-found coordinates (x,y,z) are based on the CEBAF coordinate system with units in meters. Differences from ideal location (dx,dy) are shown in millimeters and are transverse to beam path. The beam path data is broken into 3 sections. The first component MBF4D01 is relative to the magnet center and is at a yaw angle of -10°. The 2<sup>nd</sup> set is relative to the 45 MeV which is at a yaw angle of -20°. The 3<sup>rd</sup> set is relative to the main straight ahead beamline (north linac). A negative value indicates that the component is to the beam right, and low. The delta z (dz) is also shown for MBF4D01 with the positive value being downstream of the ideal location.

The angular differences (units degrees) for the dipole magnet MBF4D01, are also shown. A negative dYaw indicates a clockwise rotation (when looked at from above), a positive dpitch means the magnet is pointing upwards from the upstream beam to the downstream beam, and a - roll is rotated counter clockwise from the ideal roll angle looking upstream

For harp IHA4D00 the delta yaw is +0.28 degrees (ccw) with no appreciable pitch.

Comp.	x (M)	y (M)	z (M)	dx (mm)	dy (mm)	dz (mm)	dyaw°	dpitch°	droll°
MBF4D01	80.59092	100.00023	-209.58154	-0.33	0.23	0.05	-0.03762	0.03524	-0.00888
Components on the 45 MeV dump line									
ITV4D00	79.46434	99.99975	-206.45734	0.84	-0.25				
IPM4D00	79.41031	99.99879	-206.31022	0.38	-1.21				
IHA4D00	79.32208	99.99988	-206.06847	0.16	-0.12				
VRV4D00	79.20849	99.99950	-205.75610	0.26	-0.50				
OTR	79.17005	99.99973	-205.65140	-0.06	-0.27				
DUMP	78.99034	99.99978	-205.15897	-0.51	-0.22				
Components on the main beamline									
BPM	80.60008	99.99987	-204.51247	0.08	-0.13				
HARP	80.60015	99.99801	-204.04127	0.15	-1.99				