Jefferson Lab Alignment Group

Data Transmittal

TO: J.Benesch, D. Gaskell, N. Okay		**DATE:** 08 Jul 2010
FROM: Kelly Tremblay	**Checked:** (jcd)	**# :** C1300

DETAILS: data: step2b\bsy\qw9c\(100526A,100526B,100524A,100601A,100607A,100608A,100604B,100607B) & calc\hallc\qweak\beamline_bpm

The data below shows the final step2B locations for the bpms and harps in line 3C downstream of the shielding wall. The surveys were performed between May 26th, and June 7th, 2010. This information is for the Qweak installation.
- X/Y/Z as-found (fnd), are the actual locations in the CEBAF coordinate system. Units are meters.
- X/Y/Z Ideal, are the values Alignment obtained from CASA. Units are meters.
- ds/dx/dy are the locations in the beam following system that the as-found values differ from the ideal values. Units are millimeters. Ds values are the difference along beam where the found point makes a perpendicular with the ideal beamline, positive values are downstream; Dx values are transverse to the beam, positive beam left; Dy values are perpendicular to ideal beam, positive direction up. All components are horizontal except for IPM3P01 and IPM3P03A which are pitched through the Compton magnets.

Component	X Fnd (M)	Y Fnd (M)	Z fnd (M)	X Ideal (M)	Y Ideal (M)	Z ideal (M)	ds(mm)	dx(mm)	dy(mm)
IHA3C17A	-98.1980	99.9774	-353.8768	-98.1968	99.9780	-353.8759	1.4	0.5	-0.6
IPM3C17	-98.5861	99.9777	-354.3827	-98.5740	99.9780	-354.3675	19.3	0.4	-0.3
IHA3C17B	-99.3394	99.9775	-355.3650	-99.3378	99.9780	-355.3629	2.7	0.0	-0.6
IPM3C18	-99.6804	99.9777	-355.8092	-99.6673	99.9780	-355.7922	21.5	0.0	-0.3
IPM3C19	-100.4651	99.9781	-356.8309	-100.4657	99.9780	-356.8320	1.2	0.2	0.1
IPM3P01*	-102.8842	99.6307	-359.9806	-102.5147	99.7378	-359.5007	615.1	0.8	1.0
IPM3P02A	-104.2625	99.4074	-361.7788	-104.2052	99.4080	-361.7025	95.4	-1.0	-0.7
IPM3P02B	-105.1158	99.4070	-362.8882	-105.1796	99.4080	-362.9716	-105.1	0.2	-1.0
IPM3P03A*	-106.5065	99.6305	-364.6989	-106.9223	99.7530	-365.2413	-694.4	0.6	-0.7
IPM3C20	-108.8988	99.9787	-367.8155	-108.8989	99.9780	-367.8157	0.2	0.1	0.7
IHA3C20	-109.5705	99.9780	-368.6907	-109.5754	99.9780	-368.6968	-4.9	-0.1	0.0
IPM3C21	-109.7245	99.9778	-368.8907	-109.7258	99.9780	-368.8928	2.5	0.2	-0.2
IPM3H02	-115.1686	99.9787	-375.9814	-115.1563	99.9780	-375.9657	20.0	0.2	0.7
IPM3H03A	-116.6760	99.9776	-377.9458	-116.6784	99.9780	-377.9481	-3.3	-0.6	-0.4
IPM3Hcav	-118.4674	99.9780	-380.2790	-118.5012	99.9780	-380.3221	54.7	-0.6	0.0
IPM3H07A	-122.0219	99.9891	-384.9068	-122.0213	99.9883	-384.9068	0.6	0.4	0.8
IHA3H07	-122.1726	99.9893	-385.1034	-122.1753	99.9883	-385.1074	-4.9	0.3	0.9
IPM3H07B	-122.6041	99.9881	-385.6656	-122.7808	99.9883	-385.8960	-290.3	0.2	-0.2
IHA3H07A	-123.0348	99.9870	-386.2260	-123.0327	99.9883	-386.2240	2.9	0.5	-1.3
IPM3H07C	-123.1906	99.9883	-386.4288	-123.1867	99.9883	-386.4247	5.6	0.6	0.0
IPM3H08	-125.1106	99.9883	-388.9304	-125.1351	99.9883	-388.9624	-40.3	0.1	-0.1
IPM3HG0	-125.9112	99.9879	-389.9726	-125.9161	99.9883	-389.9795	10.7	0.3	-0.4
IHA3HG0	-126.0704	99.9883	-390.1805	-126.0701	99.9883	-390.1801	6.7	0.0	0.0
IHA3HG0A	-127.3146	99.9891	-391.8026	-127.3141	99.9883	-391.8003	7.0	-1.0	0.7
IPM3HG0B	-127.4686	99.9880	-392.0030	-127.4694	99.9883	-392.0025	6.7	-0.9	-0.3