Jefferson Lab Alignment Group

Preliminary Data Transmittal

TO: Tim Whitlatch		**DATE:** 21 Nov 2013
FROM: Matt Walker	**Checked:**	**# :** D1522

DETAILS:

The following data is from the inspection of the Hall D FCAL. All data is in millimeters.

The coordinates for the FCAL listed below are relative to a beam following system. +X is beam left of center of the FCAL beam pipe. +Y is above the center of the FCAL beam pipe. +Z is downstream of the upstream face of the FCAL frame around the stacked detectors.

	X	Y	Z		X	Y	Z
	BEAM LEFT UPPER				BEAM RIGHT UPPER		
1	302.11	1144.08	3.81	1	-299.97	1144.92	2.46
2	542.57	1064.80	5.41	2	-541.31	1065.05	1.51
3	663.26	984.03	6.48	3	-661.68	984.45	2.89
4	783.94	903.44	5.41	4	-782.41	904.80	4.53
5	863.97	823.26	4.90	5	-862.63	824.04	4.44
6	943.41	702.79	4.20	6	-942.99	704.23	3.81
8	1144.76	302.39	3.17	8	-1143.60	302.98	5.94
	BEAM LEFT LOWER				BEAM RIGHT LOWER		
1	300.11	-1145.98	3.89	1	-302.19	-1144.81	4.09
2	541.03	-1065.41	4.55	2	-542.83	-1064.30	2.90
3	661.64	-984.85	3.59	3	-663.58	-983.87	3.29
4	781.71	-905.59	3.26	4	-783.95	-903.55	4.50
5	862.65	-825.23	2.77	5	-864.20	-823.13	5.04
6	983.10	-667.39	1.77	6	-984.95	-662.57	5.62
7	1063.07	-545.02	0.58	7	-1064.63	-542.08	5.14

An average plane was created using a grid of 148 points on the upstream metal section of the detector faces. This average plane is 0.73mm downstream of the upstream face of the FCAL frame around the stacked detectors.