



Jefferson Lab Alignment Group

Data Transmittal

TO: B. Miller, S Stepanyan

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FROM: Chris Gould

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DETAILS:

M:\align\DATA\Fiduc\HallB\FwdCarriage\ECs
M:\align\DATA\Fiduc\HallB\FwdCarriage\PCAL

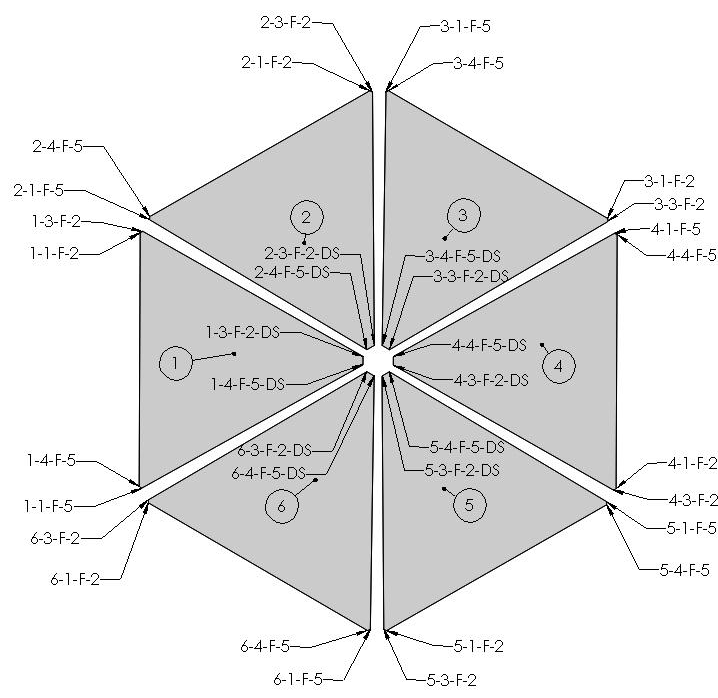
Below are the results of the EC detector survey. The upstream corner points of the detectors were measured to the outside metal edge. Since the inner corner points were inaccessible, they were constructed using nominal distances from the outside points. The coordinate system was established relative to the EC detectors. +Z is downstream, +X is beam left and +Y is up. The Z axis is a line perpendicular to the constructed plane of the upstream corner points. Roll was defined as an average line through all detectors and the origin is the upstream face of the original hub. Values are in millimeters. Diagrams with naming conventions follow on last page.

NAME	Z	X	Y		NAME	Z	X	Y
1-3-F-2	-1671.44	3872.09	2100.67		4-4-F-5	-1672.72	-3870.66	2105.39
1-4-F-5	-1664.80	3853.51	-2132.29		4-1-F-5	-1731.43	-3997.81	2032.65
1-1-F-5	-1722.90	3979.44	-2061.78		4-1-F-2	-1726.87	-3987.20	-2057.68
1-1-F-2	-1729.51	3997.81	2028.79		4-3-F-2	-1668.05	-3859.78	-2129.52
1-3-F-2-DS	0.15	248.78	81.70		4-4-F-5-DS	-1.91	-251.31	78.71
1-4-F-5-DS	0.39	248.10	-76.34		4-3-F-2-DS	-1.78	-251.01	-80.35
2-3-F-2	-1671.90	101.59	4401.55		5-4-F-5	-1670.38	-3759.66	-2296.24
2-4-F-5	-1662.98	3770.96	2287.13		5-1-F-5	-1728.34	-3761.14	-2439.52
2-1-F-5	-1721.01	3772.26	2431.04		5-1-F-2	-1733.12	-213.83	-4478.21
2-1-F-2	-1729.75	225.94	4474.84		5-3-F-2	-1676.26	-92.63	-4406.09
2-4-F-5-DS	1.63	197.55	175.59		5-4-F-5-DS	0.28	-191.30	-180.94
2-3-F-2-DS	1.48	59.58	254.65		5-3-F-2-DS	-0.68	-57.08	-260.01
3-4-F-5	-1680.98	-104.19	4395.14		6-4-F-5	-1674.17	93.02	-4406.37
3-1-F-5	-1739.17	-229.11	4468.85		6-1-F-5	-1731.37	215.06	-4478.34
3-1-F-2	-1722.23	-3773.79	2428.59		6-1-F-2	-1735.33	3759.72	-2432.00
3-3-F-2	-1663.02	-3773.00	2282.36		6-3-F-2	-1677.64	3759.08	-2288.40
3-4-F-5-DS	1.20	-62.25	251.80		6-4-F-5-DS	-2.72	52.09	-258.68
3-3-F-2-DS	2.11	-198.81	172.56		6-3-F-2-DS	-2.60	189.50	-178.65

Below are the results of the PCAL detector survey. The same coordinate system established with the EC Detector is used here. Measurements were made to the six corners of each detector.

NAME	Z	X	Y		NAME	Z	X	Y
S1					S4			
BOTLEFT	-1992.07	3926.14	-2114.54		BOT	-1993.51	-3926.49	-2171.40
BOTLEFT_1	-2001.88	3947.30	-2100.35		BOT_1	-2003.47	-3948.07	-2156.77
TOPLEFT_1	-2001.12	3951.62	2154.15		S4LowerInner	-286.35	-248.86	-98.56
TOPLEFT	-1991.61	3931.12	2168.11		S4UpperInner	-286.62	-250.03	33.59
S1LowerInner	-285.44	250.45	-37.80		TOP	-1985.72	-3928.72	2111.18
S1UpperInner	-285.96	251.74	97.12		TOP_1	-1995.18	-3949.11	2097.22
S2					S5			
LEFT	-1984.89	3795.45	2344.17		BOT	-1998.33	-73.86	-4485.61
LEFT_1	-1994.57	3793.63	2369.28		BOT_1	-2007.90	-96.26	-4496.55
S2LeftInner	-285.46	156.85	197.40		RIGHT	-1992.21	-3787.78	-2353.91
S2RightInner	-286.13	41.63	264.92		RIGHT_1	-2001.68	-3786.11	-2378.36
TOP	-1993.87	86.93	4486.01		S5LeftInner	-287.72	-40.34	-265.57
TOP_1	-2003.54	109.67	4497.08		S5RightInner	-287.56	-156.42	-199.03
S3					S6			
RIGHT	-1992.55	-3846.46	2340.74		BOT	-1996.76	130.34	-4455.52
RIGHT_1	-1982.64	-3848.19	2315.30		BOT_1	-2006.33	152.49	-4466.44
S3LeftInner	-286.86	-93.62	233.30		LEFT	-2000.66	3840.51	-2317.65
S3RightInner	-286.17	-209.34	166.63		LEFT_1	-2010.38	3838.50	-2342.92
TOP	-2003.11	-135.18	4450.98		S6LeftInner	-286.25	210.15	-168.86
TOP_1	-2012.65	-157.60	4461.95		S6RightInner	-286.00	93.80	-235.57

EC Detector Diagram



PCAL Detector Diagram

