



Jefferson Lab Alignment Group

Data Transmittal

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DATE: 16 Jun 2023

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Checked: SEH

: L2072

DETAILS:

M:\align\DATA\Step2B\INJ\SAD_2023\230605A
M:\align\DATA\Step2A\INJ\0L23\230526A
M:\align\DATA\Step2B\INJ\SAD_2023\230531A
M:\align\DATA\Step2B\INJ\0L0R\230530A

Phase 2 injector components were aligned through the summer 2023 SAD. The results are relative to a beam-following coordinate system; +X is left of the beam, +Y is above the beam, and +Z is downstream. Rotation angles are as follows: +Pitch is a clockwise rotation looking from left, +Yaw is a counter-clockwise rotation looking from above, and +Roll is a counter-clock rotation looking from downstream. The BPM z locations are approximate values to the BPM antennas.

	CEBAF coordinates			Beam Following coordinates			yaw[deg.]	pitch[deg.]	roll[deg.]
	z[m]	x[m]	y[m]	dz[mm]	dx[mm]	dy[mm]			
R30_3	-263.02511	81.08792	100.00049	-16.64	0.03	0.07	-15.6194	0.0576	-0.0304
IPM2I00	-262.75006	80.98707	100.00058		0.21	0.16			
IPM2I00A	-262.39805	80.88094	100.00025		-0.26	-0.17			
MFX2I01	-262.19408	80.85498	100.00043		-0.02	0.01			
MFX0I05	-254.52206	80.60149	100.00023		0.19	-0.20			
IPM0I05	-254.39609	80.60186	100.00012		0.56	-0.30			
MFX0I06	-253.92462	80.60152	100.00029		0.22	-0.14			
IPM0I06A	-251.96747	80.60189	100.00061		0.59	0.19			
RIB0I06	-253.29508	80.60120	100.00050		-0.10	0.08			
IPM0I06B	-252.72638	80.60287	99.99992		1.57	-0.50			
MBO0I06	-253.01440	80.59191	100.00044	-0.24	-0.26	0.02			
SFY0IA3	-252.71132	80.60092	100.00019	4.49	-0.38	-0.23			
MFX0I07	-252.30826	80.60105	100.00042		-0.25	0.01			
IPM1D00	-254.46785	79.96462	100.00109		-0.24	0.62			
SFY0IA4	-251.82544	80.60119	100.00065	2.39	-0.11	0.23			
CA0L02	-251.09406	80.60117	100.00043	0.09	-0.13	0.01			
IPM0L01B	-248.37463	80.60188	100.00105		0.58	0.63			
MQJ0L01	-248.05741	80.60136	100.00045	3.04	0.06	0.03			
IPM4D00E	-210.68329	78.81083	100.00088		0.13	0.88			
IHA4D00E	-210.33425	78.68110	99.99991		0.50	-0.09			
IPM4D00	-209.43586	78.22416	99.99982		0.60	-0.18			
IHA4D00	-209.17794	78.14243	100.00027		0.98	0.27			