



# Jefferson Lab Alignment Group

## Data Transmittal

**TO:** T. Whitlatch

**DATE:** 05/25/2022

**FROM:** Elena Balan

**Checked:**

**# :** D2033

**DETAILS:**

M:\align\DATA\Step2B\HallD\TAC\220519A  
M:\align\DATA\Step2B\HallD\COLLIMATOR\220512A  
M:\align\DATA\Step2B\HallD\Target\220512A

Below are the results of a few Hall D components surveyed in May, 2022. The found coordinates are in the CEBAF coordinate system. The Beam Following coordinates are the amount offset from the design (ideal) location. The results are relative to a beam-following coordinate system; +X is left of beam, +Y is above beam, +Z is downstream. Angles are reported using the right-hand rule; +Pitch is a counter-clockwise rotation looking from left, +Yaw is a counter-clockwise rotation looking from above, +Roll is a counter-clock rotation looking from downstream.

Component	CEBAF Coord. System			Beam Following Coord.			Yaw[deg]	Pitch[deg]	Roll[deg]
	X[m]	Y[m]	Z[m]	dx[mm]	dy[mm]	dz[mm]			
TAC_CENTER	80.60002	104.70028	414.45167	0.02	0.28	69.67	0.0205	0.1416	
OLD_TAC	80.59984	104.70003	414.39594	-0.17	0.04				
LUMINOSITY_CENTER	80.59821	104.70092	412.02482	-1.79	0.77	-2376.68			
3.4mm HOLE	80.60003	104.69998	374.59301	0.03	-0.01	107.68			
5mm HOLE	80.59997	104.70006	374.59268	-0.03	0.07	107.35			
3.4mm HOLE_repeat	80.60022	104.69960	374.59300	0.03	-0.39	107.67			
CPPPB_ALL POINTS	80.60023	104.70039	398.14897	0.23	0.39	-0.05	-0.0111	-0.0085	0.4864
CPPPB_W/O ABC	80.59972	104.69969	398.14899	-0.28	-0.31	-0.03	-0.0249	0.0263	-0.0292