



# Jefferson Lab Alignment Group

## Data Transmittal

**TO:** J.Grames

**DATE:** 13 Nov 2013

**FROM:** Chris Gould

**Checked:**

**# :** L1527

**DETAILS:**

M:\align\DATA\Step2B\INJ\131031B

Below are the results of the recent Mott Can and Ladder survey. Locations for the can are reported in CEBAF coordinates and in a beam following system where positive Z is downstream, positive Y is up and a positive X is to the beam left. Locations for the ladder are reported relative to CEBAF coordinates, beam following and relative to the MOTT Can. Yaw angles are given relative to ideal and are reported in degrees. A positive Yaw angle is counter-clockwise from above, a positive pitch angle is counter-clockwise from the beam right side and a positive roll angle is clockwise looking downstream. The step count for the ideal position of each target is also given where target 1 is the bottom most target and 16 is the top most target. It should also be noted that while fiducializing the target ladder 6 degrees of backlash in the yaw direction was observed.

	CEBAF COORDS (M)			BEAM FOLLOWING(mm)			dYaw	dPitch	dRoll			
	Z	X	Y	Z	X	Y						
TARGET CAN	-241.11774	81.05479	99.99963	-3.652	-0.29	-0.367	0.0	0.0	-0.1			
	CEBAF COORDS (M)			BEAM FOLLOWING(mm)			dYaw	dPitch	dRoll	RELATIVE TO MOTT CAN(mm)		
	Z	X	Y	Z	X	Y				Z	X	Y
TARGET LADDER	-241.11786	81.05602	99.999813	-3.514	0.938	-0.187	-0.4	0.1	0.2	0.11	1.25	0.2

Ideal Target position (Top of ladder to bottom)	Step Count
16	-108535
15	-101835
14	-95180
13	-88503
12	-81900
11	-75425
10	-68875
9	-62225
8	-55550
7	-48875
6	-42325
5	-35860
4	-29275
3	-22625
2	-15925
1	-9285

