

Jefferson Lab Alignment Group

DATA TRANSMITTAL

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Checked:

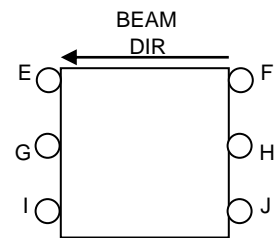
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DETAILS:

Below are the results of the Hall A compass and He3 target ladder alignment performed on August 1st and 2nd, 2001. The numbers shown for the target ladder represent the amount the survey target would have to move (in mm) to be in the ideal location. A negative X is a movement to the beam right, positive Y is up, and positive Z is downstream.

The compass angle deltas are offsets from the magnet field direction which is based on the incoming beam line. The 100 series are with the compass parallel to beam, and the 200 series are perpendicular to beam. They are listed sequentially as surveyed in the field. CW is a rotation clockwise looking from above.

TARGET	DEL Z	DEL X	DEL Y
ATGLADE	- 0.37	1.80	3.60
ATGLADF	- 0.26	1.15	1.40
ATGLADG	0.25	-0.74	1.04
ATGLADH	0.48	-0.66	-0.08
ATGLADI	0.11	-0.14	3.95
ATGLADJ	-0.19	-0.57	1.57



COMPASS MEASUREMENTS

Spectrometers at 45 deg.

Spectrometers at 17 deg.

TARGET PT.

COMPASS ANGLE Δ

COMPASS ANGLE Δ

100-101
102-103
104-105
106-107
108-109
110-111

0.0625 ccw
0.0386 ccw
0.5310 cw
0.2882 cw
0.2719 cw

0.4490 ccw
0.2860 ccw
0.5282 ccw
0.0246 cw
0.0574 ccw
0.1660 cw

200-201
202-203
204-205
206-207
208-209
210-211
212-213
214-215
216-217

0.5927 cw
0.5735 cw
0.5743 cw
0.2852 cw
0.2776 cw

0.6573 cw
0.5112 cw
1.1772 cw
0.0164 cw
1.0308 cw
0.0850 ccw
0.0973 ccw
0.5115 ccw
0.4934 ccw