

Jefferson Lab Alignment Group

DATA TRANSMITTAL

TO: Mike Seely, Jim Dunne, Dave Meekins

DATE: 11 July, 2000

FROM: Steve Hardisty, Ken Baggett. (Rev: C. Curtis 7/26/01)

Checked:

: C616r

DETAILS:

Enclosed please find the (revised) Hall C cryogenic and solid target alignment data for the GEn2 run. All coordinates in this transmittal are in millimeters with the origin at the Hall C ideal target location. The coordinate system is beam following with +Z being downstream of target center; +X being beam left of target center and +Y being above target center. This package includes:

- A sketch of the loops and cells, of both targets
- A report showing deviations from nominal for the cryo target
- A target coordinate report for all points measured during the survey

Listed below are the as-found calculated coordinates of the cell centers for the cryo target. (Note: signs are reversed from original data transmittal)

Location	Z	X	y
Cell 1 Top	.33	.71	.06
Cell 1 Bott	.19	.60	-.09
Cell 2 Top	.08	.61	-.09
Cell 2 Bott	-.03	.85	-.17
Cell 3 Top	-.13	.98	-.06
Cell 3 Bott	-.24	1.22	-.09

Listed below are the as-found calculated coordinates of the cell centers for the solid target at 20 degrees.

Location	Z	X	Y
Cell 1	3.83	-2.35	-2.50
Cell 3	3.43	-2.58	.27
Be Target	2.94	-3.29	-.11

Listed below are interpolated coordinates of the cell centers for the remaining solid target cells at 20 degrees.

Location	Z	X	Y
Cell 2	3.62	-2.47	-1.12
Cell 4	3.26	-2.77	2.78
Cell 5	3.10	-3.01	5.29

Coordinate accuracy is estimated to be ± 0.36 mm (rms.) based on error contributions as follows:

Faro = $\pm .150$ mm

S2AA survey = $\pm .150$ mm

Monuments = $\pm .290$ mm (largest component being Y(elevation)).

For your benefit coordinates are shown to 2 decimal places.

Note: non-compensated points are points that are calculated to the probe center instead of the probe tip.