

# Jefferson Lab Alignment Group

## DATA TRANSMITTAL

**TO:** Chen Yan, Paul Guye, Dave Mack

**DATE:** 17 March, 2000

**FROM:** Chris Curtis

**Checked:** # : 582

### DETAILS:

The results from the January 2000 superharp survey in line C are given below. The data was adjusted in the same way as outlined in Data Transmittal #543. This used a minimally constrained network with the first superharp (01) fixed in Z and X, and the second superharp (02) fixed only in X. This approach ensured a minimum of bias on the results.

Harp centerline coordinates (derived from the four fiducials), calculated azimuths between adjacent superharps, and the overall bend angle are given below. Absolute and relative error ellipses from the constrained networks were used to indicate the accuracy of the measurements; semi major (A) and semi minor(B) axes in millimeters are shown (one sigma). These accuracies refer to survey error only, and do not include any allowance for fiducialization and target errors.

Coordinates for the center of quad QA3C07 is also given, together with the DZ and DX (in mm) from ideal.

<b>POINT</b>	<b>Z</b>	<b>X</b>	<b>A</b>	<b>B</b>	<b>Azimuth (deg.)</b>
SH01	79689.72937	59917.44027	0.00	0.00	
SH02	79687.23365	59917.30088	0.06	0.00	266.8033
SH03	79666.51218	59913.27131	0.18	0.08	
SH04	79665.09929	59912.74822	0.19	0.07	249.6841
SH05	79646.12476	59901.80291	0.33	0.09	
SH06	79644.63706	59900.66239	0.34	0.10	232.5250

**Angle (1-2) to (5-6) : -34.2782 deg**

Estimated accuracy ( $1\sigma$ ): 8.4 seconds or 0.0023 deg

QA3C07	79692.32401	59917.58550	0.37 (DZ)	0.04 (DX)
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