

Jefferson Lab Alignment Group

DATA TRANSMITTAL

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DATE: 5 Feb 2001

PAGE: 1 of 2

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Checked:

: A653

DETAILS:

Below are the results from the spectrometer pointing and superharp surveys carried out on the Electron and Hadron arms between January 30th and February 2nd.

===== RESULTS ===== H013001B

The central ray of the spectrometer is at 21.014 degrees.
It is missing the defined target center by .29 mm downstream,
and -0.07 mm vertically (positive = up).

If the offset is corrected by secondary alignment, the
spectrometer will be at 21.012 degrees.

*.3dd = 1.28 *.9pr = 0.13

===== RESULTS ===== H013101A

The central ray of the spectrometer is at 25.050 degrees.
It is missing the defined target center by .24 mm upstream,
and -0.12 mm vertically (positive = up).

If the offset is corrected by secondary alignment, the
spectrometer will be at 25.051 degrees.

*.3dd = 1.14 *.9pr = 0.11

===== RESULTS ===== E020101A

The central ray of the spectrometer is at -16.024 degrees.
It is missing the defined target center by 1.76 mm upstream,
and 0.04 mm vertically (positive = up).

If the offset is corrected by secondary alignment, the
spectrometer will be at -16.036 degrees.

*.3dd = 1.26 *.9pr = 0.11

DATA TRANSMITTAL (cont.)

: A653

DATE: 5 Feb 2001

PAGE : 2 of 2

| Superharps | DX | DY | locations in mm (+ is beam left) |
|-------------------|-----------|-----------|---|
| | | | E020101A |
| SH1H01A | 0.01 | 0.08 | |
| SH1H01B | 0.10 | 0.04 | |
| SH1H01C | 0.13 | 0.04 | |
| SH1H02A | -0.22 | 0.15 | |
| SH1H02B | -0.11 | 0.15 | |
| SH1H02C | -0.14 | 0.24 | |

===== RESULTS ===== E020201A

The central ray of the spectrometer is at 140.513 degrees.
It is missing the defined target center by 2.62 mm upstream,
and -0.36 mm vertically (positive = up).

If the offset is corrected by secondary alignment, the
spectrometer will be at 320.496 degrees.

*.3dd = 1.57 *.9pr = 0.10

| Superharps | DX | DY | locations in mm (+ is beam left) |
|-------------------|-----------|-----------|---|
| | | | E020201A |
| SH1H01A | 0.04 | 0.15 | |
| SH1H01B | 0.12 | 0.12 | |
| SH1H01C | 0.15 | 0.10 | |
| SH1H02A | -0.10 | 0.24 | |
| SH1H02B | -0.03 | 0.23 | |
| SH1H02C | -0.01 | 0.29 | |