# Jefferson Lab Alignment Group <br> DATA TRANSMITTAL 

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Checked:
\# : A680
DETAILS:

Below are the results from the spectrometer pointing and superharp surveys carried out on the Hadron and Electron arms from July $3^{\text {rd }}$ to July $6{ }^{\text {th }}, 2001$.
$================$ RESULTS =============== E 070301 A

The central ray of the spectrometer is at -44.974 degrees.
It is missing the defined target center by 3.35 mm upstream, and -0.71 mm vertically (positive $=u p$ ).

If the offset is corrected by secondary alignment, the spectrometer will be at 315.003 degrees.
*. $3 \mathrm{dd}=1.07 \quad$ *. $9 \mathrm{pr}=0.11$
================= RESULTS ================ H 070501 A
The central ray of the spectrometer is at 44.995 degrees.
It is missing the defined target center by 0.76 mm upstream, and 1.03 mm vertically (positive = up).

If the offset is corrected by secondary alignment, the spectrometer will be at 45.000 degrees.
*.3dd $=1.55 \quad * .9 \mathrm{pr}=0.15$
$================$ RESULTS $===============\mathrm{E} 070601 \mathrm{~B}$
The central ray of the spectrometer is at -34.985 degrees.
It is missing the defined target center by 1.90 mm upstream, and 0.02 mm vertically (positive $=u p$ ).

If the offset is corrected by secondary alignment, the spectrometer will be at -34.998 degrees.

$$
\text { *.3dd }=1.31 \quad * .9 p r=0.13
$$

```
================ RESULTS =============== H070601A
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The central ray of the spectrometer is at 35.025 degrees.
It is missing the defined target center by 3.43 mm downstream, and 0.81 mm vertically (positive $=u p$ ).

If the offset is corrected by secondary alignment, the spectrometer will be at 35.001 degrees.
*.3dd = 1.43
*. $9 \mathrm{pr}=0.12$
$======================================\mathrm{E} 070601 \mathrm{~B}$

| Superharps | DX | DY | locations in $\mathbf{m m}$ (+ is beam left) |
| :--- | :---: | :---: | :---: |
|  |  |  |  |
| SH1H01A | -0.14 | 0.36 |  |
| SH1H01B | -0.01 | 0.31 |  |
| SH1H01C | -0.02 | 0.32 |  |
|  |  |  |  |
| SH1H02A | -0.18 | 0.31 |  |
| SH1H02B | -0.09 | 0.33 |  |
| SH1H02C | -0.08 | 0.38 |  |

