## - 马eatic <br> Jefferson Lab Alignment Group Data Transmittal

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FROM:
Below are the alignment results of the Hall C G0 components. The values are relative to ideal design location (in mm and deg), with a +X to the beam left, +Y above, and +Z downstream. A +pitch is cw looking from the beam right side, a +yaw is ccw looking from above, and a roll is cw looking downstream. The X and Y position of the target is based on the alignment performed while looking down the beam centerline after the service module was installed. The $Z$ value is based on the target location relative to the service module prior to installation and the as-set position of the service module. The location of the Ferris wheel (average octant assembly) prior to the last roll out along the Z-axis was -0.27 in $\mathrm{X},+0.20$ in Y , and -0.54 in Z from its current position. This may be used as an indicator for repeatability.

| COMPONENT | X | Y | Z | PITCH | YAW | ROLL |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |
| TARGET | +0.56 | +0.50 | -7.66 |  |  |  |
| SMS | +0.06 | -0.15 | -0.92 | $+0.01^{\circ}$ | $+0.01^{\circ}$ | $+0.01^{\circ}$ |

OCTANTS:

| $0^{\circ}($ USA top $)$ | +0.27 | -0.26 | +1.02 | $+0.01^{\circ}$ | $+0.01^{\circ}$ | $+0.01^{\circ}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| $45^{\circ}$ (French) | +0.62 | -2.05 | +1.11 | $-0.02^{\circ}$ | $+0.01^{\circ}$ | $+0.02^{\circ}$ |
| $90^{\circ}$ (USA beam right) | -0.64 | +0.97 | +1.11 | $-0.01^{\circ}$ | $0.00^{\circ}$ | $0.00^{\circ}$ |
| $135^{\circ}$ (French) | +0.22 | -0.11 | +1.14 | $0.00^{\circ}$ | $+0.01^{\circ}$ | $+0.02^{\circ}$ |
| $180^{\circ}($ USA bottom $)$ | +0.27 | +0.53 | +1.05 | $+0.01^{\circ}$ | $+0.01^{\circ}$ | $0.00^{\circ}$ |
| $225^{\circ}($ French $)$ | -0.49 | -0.02 | +1.16 | $+0.01^{\circ}$ | $+0.02^{\circ}$ | $-0.01^{\circ}$ |
| $270^{\circ}$ (USA beam left) | +0.55 | +0.72 | +1.15 | $+0.02^{\circ}$ | $+0.01^{\circ}$ | $+0.01^{\circ}$ |
| $315^{\circ}$ (French) | +0.49 | -1.81 | +1.24 | $+0.03^{\circ}$ | $+0.02^{\circ}$ | $-0.02^{\circ}$ |

