



# Jefferson Lab Alignment Group

## Data Transmittal

**TO:** J. Gomez, J. LeRose **DATE:** 07 Dec 2006

**FROM:** Chris Curtis **Checked:** **# :** A1090

**DETAILS:**

Below are the results from the electron (left) spectrometer surveys carried out on 20<sup>th</sup> and 21<sup>st</sup> November, 2006. In addition, the coordinates of three new points located on the link are given. These coordinates are in millimeters relative to the Hall A target and beamline, with +Z along the beam, +X to the beam left, and +Y up. The horizontal offset from each point to a line between the ideal target and the spectrometer Jack point is also shown.

===== RESULTS ===== E112006A

The central ray of the spectrometer is at -49.988 degrees.  
It is missing the defined target center by 0.90 mm upstream, and -0.80 mm vertically (positive = up).

If the offset is corrected by secondary alignment, the spectrometer will be at 310.006 degrees.

\*.9PR : 0.128                    \*.3DD : 0.86

	<u>Z (mm)</u>	<u>X (mm)</u>	<u>Y (mm)</u>	<u>Offset (mm)</u>
JACK	5437.36	6478.52	-1.71	0.00
ESPECTX	-420.51	2561.10	-2067.11	1968.56
ESPECTY	2678.87	5710.80	-1987.91	1619.38
ESPECTZ	4391.78	3623.50	-1965.91	-1034.53

===== RESULTS ===== E112106A

The central ray of the spectrometer is at -30.486 degrees.  
It is missing the defined target center by 1.70 mm upstream, and 0.36 mm vertically (positive = up).

If the offset is corrected by secondary alignment, the spectrometer will be at -30.498 degrees.

\*.9PR : 0.133                    \*.3DD : 0.85

	<u>Z (mm)</u>	<u>X (mm)</u>	<u>Y (mm)</u>	<u>Offset (mm)</u>
JACK	7287.66	4292.34	-1.60	0.00
ESPECTX	458.25	2554.49	-2067.75	1968.52
ESPECTY	4431.07	4489.17	-1987.92	1619.32
ESPECTZ	5349.05	1949.83	-1965.90	-1034.58

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===== RESULTS ===== E112106B

The central ray of the spectrometer is at -105.996 degrees.  
It is missing the defined target center by 2.78 mm upstream, and 1.71 mm vertically (positive up).

If the offset is corrected by secondary alignment, the spectrometer will be at 253.986 degrees.

\*.9PR : 0.128

\*.3DD : 0.83

	<u>Z (mm)</u>	<u>X (mm)</u>	<u>Y (mm)</u>	<u>Offset (mm)</u>
JACK	-2333.15	8128.96	-1.26	0.00
ESPECTX	-2358.42	1083.10	-2066.07	1968.09
ESPECTY	-3237.64	5413.49	-1985.99	1618.53
ESPECTZ	-549.36	5667.00	-1964.07	-1035.36