



# Jefferson Lab Alignment Group

## Data Transmittal

**TO:** S. Stepanyan

**DATE:** 30 Oct 2014

**FROM:** Chris Gould

**Checked:**

**# :** B1579

**DETAILS:**

M:\align\Calcs\HallB\HPS

Below are the current positions of the HPS Pair Spectrometer, chamber and calorimeter. These positions should be considered the pre aligned locations. The final alignment will be determined once the target/SVT is installed. Since the calorimeter was not fiducialized the coordinates are given to the tooling ball locations only. The positions are given in the CEBAF Machine coordinates. The deltas are listed in a beam following system where a positive X is to the beam left, a positive Y is up and a positive Z is downstream.

Summary	Measured (M)			Ideal (M)			BFS delta (mm)		
Element	X	Y	Z	X	Y	Z	X	Y	Z
Pair Spectrometer	-80.68805	103.35450	-417.75641	-80.68865	103.35526	-417.75607	-0.60	-0.76	0.34
Pair Spec. Chamber									
US	-80.68773	103.35465		-80.68865	103.35450		-0.92	0.16	
DS	-80.68850	103.35473		-80.68865	103.35450		-0.15	0.23	
Calorimeter Top									
CTOP_A	-80.30201	103.58850	-418.69392						
CTOP_B	-80.30234	103.58861	-418.84387						
CTOP_C	-81.11726	103.58846	-418.69330						
CTOP_D	-81.11776	103.58852	-418.84334						
Calorimeter Bot									
CBOTT_A	-80.30091	103.12316	-418.69211						
CBOTT_B	-80.30433	103.12287	-418.84097						
CBOTT_C	-81.11808	103.12422	-418.68965						
CBOTT_D	-81.11847	103.12396	-418.83975						