



# Jefferson Lab Alignment Group

## Data Transmittal

**TO:** R. Suleiman, A. Hofler

**DATE:** 05/09/2018

**FROM:** Chris Gould

**Checked:**

**# :** L1862

**DETAILS:**

Data: M:\align\DATA\Step2B\INJ\180508A

Below are the results from the recent survey carried out on the Bubble Chamber. The coordinates below are given in millimeters. A right-handed coordinate system was established with the origin at the intersection of the Main Beamline and the 5D line rotated 25 degrees about the vertical axis. A +X is left, +Y is above, and +Z is downstream from ideal. The approximate Z locations for the BPM's are to the SMA connector. Note that the antennae are oriented at 0 and 90 degrees.

	BFS (mm) Relative to Intersection			Orientation in Degrees		
	X	Y	Z	Rx (Pitch)	Ry(Yaw)	Rz(Roll)
MQD5D00	0.13	0.12	685.13	0.0414	-0.0471	0.0571
IPM5D00_Z			882			
MQD5D01	0.14	0.03	2082.47	-0.0623	0.0196	0.004
IPM5D01_Z			2278			
US HARP Flange	0.41	0.55				
RADIATOR	0.20	0.22	3287.9			
US COLLIMATOR	-0.02	-0.04	3295.15	-0.0155	-0.0225	
DS COLLIMATOR	-0.06	-0.01				
US COLLIMATOR REPEAT	0.03	-0.03	3295.12			
DS COLLIMATOR REPEAT	-0.09	0.04				
US BUBBLE FLANGE	-0.12	0.15		0.0082	0.0126	0.0302
DS BUBBLE FLANGE	-0.05	0.11				
CL BUBBLE CHAMBER			3649.39			