Jefferson Lab Alignment Group

Data Transmittal

TO: T. Whitlatch, C.Keith		**DATE:** 12/16/2021
FROM: Chris Gould	**Checked:** TPSIII	**# :** D2022

DETAILS:

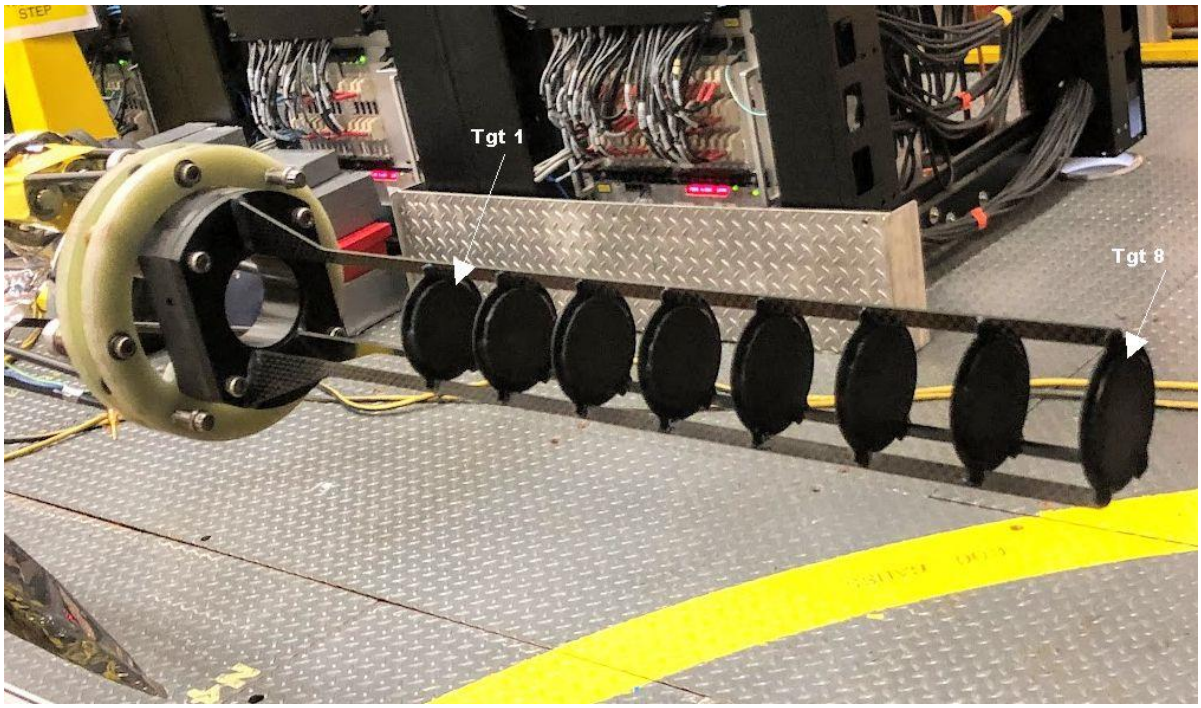
Data: Fiduc\HallD\TARGET\211215B
Fiduc\HallD\TARGET\211215A

Below are the results from the Hall D Solid Target and Liquid Hydrogen Target surveys carried out on December 14th, 2021. The Solid Target survey results were measured and calculated after the run was complete. To determine length and offset along the beam axis, both the upstream and downstream surfaces of each of the eight carbon foils were measured. Horizontal and vertical offsets for Tgt 1 and Tgt 8 are defined by the circle center of the target frame.

The ideal and found coordinates are shown in meters relative to the CEBAF coordinate system. The beam following coordinates (bfs - millimeters) are relative to the ideal location and described as follows: Negative X is beam right, negative Y is below and a negative Z is upstream.

Ideal CL	80.60000	104.70000	398.78983

	CEBAF Mechanical (Meters)				Beam Following (mm)		
SOLID TARGET	**X**	**Y**	**Z**	**Thickness(mm)**	**X**	**Y**	**Z**
Tgt 1 US	80.59999	104.70080	398.66272		-0.01	0.80	-127.11
DS			398.66506	2.3			-124.77
Tgt 2 US			398.69879				-91.04
DS			398.70114	2.4			-88.69
Tgt 3 US			398.73484				-54.99
DS			398.73712	2.3			-52.71
Tgt 4 US			398.77101				-18.82
DS			398.77328	2.3			-16.55
Tgt 5 US			398.80697				17.14
DS			398.80922	2.3			19.39
Tgt 6 US			398.84332				53.49
DS			398.84562	2.3			55.79
Tgt 7 US			398.87914				89.31
DS			398.88144	2.3			91.61
Tgt 8 US			398.91521				125.38
DS	80.59959	104.70061	398.91749	2.3	-0.41	0.61	127.66



	CEBAF Mechanical (Meters)				Beam Following (mm)		
Liquid Hydrogen	**X**	**Y**	**Z**		**X**	**Y**	**Z**
	80.59983	104.70015	398.78986		-0.17	0.15	0.03