



# Jefferson Lab Alignment Group

## Data Transmittal

**TO:** J. Fisher

**DATE:** 07/25/2022

**FROM:** Elena Balan

**Checked:** KJT

**# :** Z2045 / C004

**DETAILS:**

M:\align\DATA\SRFCryo\SNSPPU\CM004\FINAL\220630A

Data bellow presents the final fiducials coordinates for the SNS cryomodule C004 surveyed in June 2022. The coordinate system established is as follows: the cavity string defines the beam axis, the primary Bayonet of the return can is controlling roll, and the upstream coupler defines the origin in Z. Positive Z downstream, positive X beam left and positive Y up. Coordinates presented in the table below are in inches. Consider that the measurements for the fiducials were taken using a 0.5" SMR and a Hubbs nest that has an H value of 0.5000" to centerline of sphere.

Name	X[inch]	Y[inch]	Z[inch]
SNS_FIDA	21.486	0.076	135.78
SNS_FIDB	0.064	21.611	135.767
SNS_FIDC	-21.456	0.021	135.704
SNS_FIDD	21.559	0.122	97.805
SNS_FIDE	0.073	21.701	97.862
SNS_FIDF	-21.465	0.118	97.823
SNS_FIDG	21.508	0.083	69.387
SNS_FIDH	0.065	21.724	69.47
SNS_FIDJ	-21.443	0.194	69.374
SNS_FIDK	21.542	0.118	26.771
SNS_FIDL	0.074	21.736	26.776
SNS_FIDM	-21.514	0.146	26.772
SNS_FIDN	21.455	0.007	-11.219
SNS_FIDP	0.048	21.643	-11.213
SNS_FIDR	-21.46	0.143	-11.192

In Vacuum Vessel			
Name	X[inch]	Y[inch]	Z[inch]
US Flange	-0.003	0.035	-53.848
DS Flange	0.020	0.032	178.459