



# Jefferson Lab Alignment Group

## Data Transmittal

**TO:** J. Fisher

**DATE:** 07/25/2023

**FROM:** Elena Balan

**Checked:** SEH

**# :** Z2078 / C007

**DETAILS:**

M:\align\DATA\SRFCryo\SNSPPU\CM007\FINAL\230725A\process

The final fiducial coordinates for the SNS cryomodule CM007 were surveyed in July 2023. The coordinate system is established as follows: the cavity string defines the beam axis, the primary Bayonet of the return can control defines the roll, and the upstream coupler defines the origin. Positive Z downstream, +X beam left, and +Y up. 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 the centerline of the sphere.

Name	X[inch]	Y[inch]	Z[inch]
SNSFIDA	21.454	-0.089	135.829
SNSFIDB	0.036	21.532	135.796
SNSFIDC	-21.568	0.066	135.759
SNSFIDD	21.455	-0.074	97.834
SNSFIDE	0.037	21.591	97.838
SNSFIDF	-21.568	0.130	97.805
SNSFIDG	21.417	-0.091	69.376
SNSFIDH	0.056	21.599	69.412
SNSFIDJ	-21.530	0.166	69.353
SNSFIDK	21.442	-0.076	26.780
SNSFIDL	0.057	21.630	26.729
SNSFIDM	-21.544	0.194	26.735
SNSFIDN	21.433	-0.104	-11.247
SNSFIDP	0.044	21.551	-11.265
SNSFIDR	-21.519	0.118	-11.274

Vacuum Vessel			
Name	X[inch]	Y[inch]	Z[inch]
US Flange	-0.060	-0.058	-53.859
DS Flange	-0.081	-0.057	178.414