



Jefferson Lab Alignment Group

Data Transmittal

TO: J. Fisher

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FROM: Elena Balan

Checked:

: Z2042 / C001

DETAILS:

M:\align\DATA\Fiduc\SNS\PPU_VV001\VV001\211203A

Data bellow presents the final fiducials coordinates for the SNS cryomodule C001 surveyed in December 2021. 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 0.3125" to centerline of sphere.

Name	X[inch]	Y[inch]	Z[inch]
FIDA	21.245	0.124	135.659
FIDB	-0.045	21.443	135.695
FIDC	-21.302	0.062	135.682
FIDD	21.246	0.057	97.713
FIDE	-0.026	21.448	97.739
FIDF	-21.353	0.107	97.755
FIDG	21.224	0.064	69.323
FIDH	-0.041	21.458	69.372
FIDJ	-21.337	0.054	69.33
FIDK	21.22	0.066	26.722
FIDL	-0.052	21.443	26.707
FIDM	-21.404	0.04	26.718
FIDN	21.186	-0.003	-11.269
FIDP	-0.088	21.322	-11.26
FIDR	-21.396	-0.046	-11.263

In Vacuum Vessel			
Name	X[inch]	Y[inch]	Z[inch]
US Flange	-0.073	-0.053	-53.929
DS Flange	-0.007	0.051	178.378