

Jefferson Lab Alignment Group

Data Transmittal

TO: J. Fisher **DATE:** 07/25/2022

FROM: Elena Balan Checked: #: Z2043 / C002

DETAILS:

M:\align\DATA\SRFCryo\SNSPPU\CM002\FINAL\220325A

Data bellow presents the final fiducials coordinates for the SNS cryomodule C002 surveyed in March 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] |
|---------|---------|---------|---------|
| SNSFIDA | 21.451 | 0.101 | 135.743 |
| SNSFIDB | -0.016 | 21.676 | 135.728 |
| SNSFIDC | -21.496 | 0.107 | 135.697 |
| SNSFIDD | 21.509 | 0.129 | 97.805 |
| SNSFIDE | 0.001 | 21.711 | 97.797 |
| SNSFIDF | -21.495 | 0.107 | 97.755 |
| SNSFIDG | 21.456 | 0.172 | 69.396 |
| SNSFIDH | -0.016 | 21.706 | 69.444 |
| SNSFIDJ | -21.475 | 0.088 | 69.351 |
| SNSFIDK | 21.514 | 0.137 | 26.816 |
| SNSFIDL | 0.002 | 21.654 | 26.759 |
| SNSFIDM | -21.473 | 0.078 | 26.771 |
| SNSFIDN | 21.542 | 0.126 | -11.192 |
| SNSFIDP | -0.015 | 21.629 | -11.205 |
| SNSFIDR | -21.475 | 0.030 | -11.231 |

| In Vacuum Vessel | | | | |
|------------------|---------|---------|---------|--|
| Name | X[inch] | Y[inch] | Z[inch] | |
| US Flange | 0.011 | 0.024 | -53.861 | |
| DS Flange | -0.007 | 0.062 | 178.452 | |