S-band horn measurements

Nominal focal point location and boresight tilt.
Units of inches and degrees.
Dome centerline coordinate system.
+x toward secondary, +y toward stairwell, +z upward

-248.145 0 -389.822 .63 0

Horn phase center locations and tilt angles from 31 Oct. 2012
Last set of measurements after turret floor adjustments.
Units of inches and degrees.

SRX	-247.909	-0.010	-390.995	0.18	0.51
Error	.236	-0.010	-1.173	0.45	0.51
STX	-247.627	-0.181	-389.944	-0.57	-0.20
Error	.518	-0.181	-.122	-1.20	-0.20

The sense of increasing x tilt angle is the mouth of the horn is moving away from the secondary when pivoting around the plane of the floor.

The sense of increasing y tilt angle is the mouth of the horn is moving away from the stairwell when pivoting around the plane of the floor.

Comparison of two different reference sets.

The target circle centers as measured and computed by Netrology.
Based on the secondary reference set used during the survey.
Units of inches.

SRX	-248.376	0.162	-395.339
SRXA	-248.370	-0.074	-395.349
STX	-247.735	0.471	-394.477
STXA	-247.723	-0.348	-394.476
STXB	-247.680	-0.070	-394.543
SRXB	-247.966	0.033	-395.468

The target circle centers calculated post survey by Mathematica.
Based on the June 28, 2004 videogrammetry data of the secondary.

SRX	-248.348	0.086	-395.355	SRXA	-248.345	-0.146	-395.364
STX	-247.704	0.399	-394.493	STXA	-247.696	-0.424	-394.491
STXB	-247.653	-0.140	-394.558	SRXB	-247.938	-0.041	-395.483

Differences in the centers between the two reference systems
Units of inches.

SRX	-.028	.076	.016
SRXA	-.025	.072	.015
STX	-.031	.072	.016
STXA	-.027	.076	.015
STXB	-.027	.070	.015
SRXB	-.028	.074	.015
Mean	-.028	.073	.015