UNAVCO Resources: Radomes

520 Beth Bartel May 26, 2023 GNSS Radomes 4917

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Many permanent GNSS stations are equipped with antenna radomes as a means of protection against general wear, to prevent the buildup of debris and snow, and to discourage people and animals from disturbing the antenna. Antenna radomes affect the signal propagation thereby altering the antenna's absolute phase center. Users should apply the appropriate absolute phase center model for each antenna and radome combination processed for precise coordinate determination. Most antenna/dome corrections are typically provided to the GNSS community by the IGS in the ANTEX format.

The two currently most commonly used radomes are the short and tall SCIGN domes, shown below.

Radome Testing at UNAVCO (Historical)

- Assessing the Impact of the SCIGN Radome on Geodetic Parameter Estimates (2007)
- UNAVCO Testing of the SCIGN Radome (2001)
- The Effect of Antenna Covers on GPS Baseline Solutions (1997)

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