

Carrier phase errors and variations in pseudo-range error are studied for GAS-1 CRPA operating in a flow through mode and beam forming mode using some measured data. It is shown that carrier phase error, as well as pseudo-range error due to the antenna can vary significantly with the angle of arrival of the satellite signal and from one antenna unit to the next. In the beam forming mode, one can significantly reduce these errors by properly weighting the signal received by various antenna elements. Single-tap weighting can correct carrier phase errors but can not correct pseudo-range errors. To correct both errors multiple-tap STAP base antenna electronics is required. Also, one may be able to use antenna data from one antenna unit for other antenna units to reduce the carrier phase error but the same may not be true for pseudo-range error.