Jason2 GPS Antenna Phase Correction Maps

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Introduction

This paper presents the development of a method to correct phase errors in GPS data, which are caused by the phase of the signal from the GPS antenna. The method involves measuring the phase difference between the GPS signal and a reference signal, and then using this information to correct the phase errors in the GPS data.

The phase error is corrected by applying a phase correction map, which is determined by interpolating between a set of measured phase error values. The phase correction map is then applied to the GPS data, resulting in a more accurate representation of the phase of the signal.

Results and Discussion

Results are presented for two different phase correction maps, one for phase errors up to 3 degrees and another for phase errors up to 5 degrees. The results show that the phase correction maps are effective in correcting phase errors in GPS data, and that the accuracy of the phase correction improves as the phase error increases.

Conclusion

An effective procedure to estimate the phase correction maps is described. The method is validated by comparing the results of the phase correction maps with those obtained from independent measurements. The results show that the phase correction maps are effective in correcting phase errors in GPS data, and that the accuracy of the phase correction improves as the phase error increases.