



Correction

Correction: Yang, J., et al. Phase Imbalance Analysis of GF-3 Along-Track InSAR Data and Ocean Current Measurements. *Remote Sens.* 2021, 13, 269

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The authors would like to make the following correction of [1]:

1. Incorrect Title

The original title of this paper is not very accurate for the full text. The correct title of the article is Phase Imbalance Analysis of GF-3 Along-Track InSAR Data for Ocean Current Measurement. We apologize for this mistake and state that the scientific conclusions are unaffected. The original article has been updated.

2. Text Correction

There were several inaccuracies in the original article. The abstract is not clearly described, and the model used in current measurement is not specifically pointed out, which is easy to be misunderstood. It is necessary to modify the abstract content to truly express the content described in this paper. In Section 3.2.2, the last sentence also needs to be adjusted to more accurately describe the point of view described in this paper.

A correction has been made to *Abstract*:

There are two useful methods of current measurement based on synthetic aperture radar (SAR): one is along-track interferometry (ATI), and the other is Doppler centroid analysis (DCA). For the ATI method, the interferometric phase must be accurate enough for ocean current measurements. Therefore, the space-varying of phase imbalances along the range, caused by antenna phase center position error, attitude error, antenna electronic miss pointing, antenna pattern mismatch, and other reasons, cannot be ignored. Firstly, this paper mainly analyzes the above possible factors by using real GF-3 ATI data and error model simulation results. Secondly, the ocean current has been preliminarily measured by the ATI method and the DCA method, using CDOP model, based on the GF-3 ATI data of the ocean scene near Qingdao, China, which is up to around -1.45 m/s. The results of the two methods are in good agreement with the correlation coefficient of 0.98, the mean difference of -0.010 m/s, and the root mean squared error (RMSE) of 0.062 m/s. Moreover, by comparing with the current measured by high-frequency surface wave radar (HFSWR), the correctness of the analysis is further proved.

A correction has been made to Data Processing and Interpretation, Ocean Current Measurements, Verification of Inversion Accuracy, Paragraph 4:

Finally, the accuracy of the inversion results is verified with the current velocities measured by high-frequency surface wave radar (HFSWR). First of all, the ocean currents measured by HFSWR are matched with those retrieved by GF-3 ATI data by bilinear interpolation. Comparing the current velocities measured by GF-3 ATI data and HFSWR, the RMSE is 0.38 m/s, the mean difference being -0.33 m/s, and the correlation coefficient reaching 0.62, which preliminarily verify the correctness of the analysis of this paper. In addition, the ocean current inversion method based on GF-3 ATI data and its accuracy improvement still need to be further studied.

The authors apologize for any inconvenience caused and state that the scientific conclusions are unaffected. The original article has been updated.

Conflicts of Interest: The authors declare no conflict of interest.

Reference

1. Yang, J.; Yuan, X.; Han, B.; Zhao, L.; Sun, J.; Shang, M.; Wang, X.; Ding, C. Phase Imbalance Analysis of GF-3 Along-Track InSAR Data and Ocean Current Measurements. *Remote Sens.* **2021**, *13*, 269. [[CrossRef](#)]