Jason-1: Initial Sea Surface Height Analysis

Data Processing and Tracks

The data processing is performed on the Jason-1 satellite's raw altimeter measurements using a combination of geophysical models and Kalman filtering techniques. The raw data are first corrected for various instrumental biases and errors, including those due to transmitter timing, receiver noise, and atmospheric effects. The processed data are then compared with historical sea level data from the TOPEX/Poseidon mission to assess the accuracy and reliability of the new sensor.

Jason-1 versus TOPEX/Poseidon

The comparison between the two missions reveals a high degree of consistency and agreement in the measured sea surface heights. The differences between the two datasets are analyzed to identify any potential biases or systematic errors in the new sensor's performance.

Conclusion

The success of the Jason-1 mission demonstrates the potential of advanced satellite technology in providing high-resolution sea surface height data. This data can be used for various applications, including ocean circulation studies, climate research, and monitoring of sea level changes due to climate change.

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