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Poster
Near-real-time (NRT) sea surface height (SSH) data from satellite altimeter missions become increasingly valuable to operational applications when they are available with high spatial density and accuracy. The SARAL/Altika mission is an especially valuable new opportunity for high accuracy NRT SSH measurements given that the Jason-1 and ENVISAT missions are no longer active. We describe our approach to improving the accuracy of NRT SSH measurements from SARAL, that adds to our existing respective measurements from Jason-2. For Jason-2, we continue to generate the so-called GPS-OGDR-SSHA value-added product by combining altimeter and radiometer data from the Operational Geophysical Data Record (OGDR) with NRT GPS-based precise orbit determination. For SARAL, we similarly combine altimeter and radiometer data from the OGDR products, but determine high accuracy orbit altitudes using SSH differences with respect to those from the Jason-2 GPS-OGDR-SSHA product at ground-track crossing locations (crossovers). This approach has the added benefit of leveling the SARAL and Jason-2 NRT SSH measurements, thereby facilitating seamless combination with no additional effort.

In this presentation, we provide updated results on the performance of the NRT GPS-based orbit solutions for Jason-2, showing that they continue to achieve radial accuracies of 1 cm (RMS). We also provide results on the performance of our inter-satellite crossover-based orbit altitudes for SARAL, showing that they are achieving accuacies of < 2 cm (RMS).
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Near Real Time Products and Applications and Multi-Mission, Multi-Sensor Observations
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