



Will the advent of the wide swath altimeter contribute to improving ocean analyses and forecasts?

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Current altimeter data sampling of the ocean sea surface height is significantly limited in spatial density. This gap is expected to be filled with the advent of the wide swath altimeter which will be launched in the near future. This paper investigates its potential contribution to lowering the analysis and forecast errors in a realistic data assimilative ocean model, through assimilation experiments involving individual and combined existing altimeters (e.g. Jason and Altika) and simulated wide swath altimeter in the Agulhas retroreflection area. The domain is chosen for its complex nonlinear circulation patterns that include meanders, eddy shedding, reattachment and propagation.