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## Using Glider Teams for Ocean Forecasting

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### Abstract (Poster)

The Smart Glider Teams field experiment operated multiple glider teams for 18 days north of Cape Hatteras, NC, U.S.A and assimilated the data into a local area domain forecast model using several versions of a four-dimensional variational (4DVAR) data assimilation system. A novel multiscale 4DVAR technique was used as one approach to constrain both large and small-scale oceanic features that were observed by the glider teams. Results show a 23% decrease in RMS error from withheld observations between a standard 4DVAR and the multiscale 4DVAR when assimilating the glider team data. Additionally, 10% of this reduced error is attributable to the assimilation of data from multiple closely spaced gliders forming a team, rather than from assimilating data from selected individual gliders from each team.