

Update on Observing System Simulation Experiments relevant to the impact of space-based lidar winds on weather prediction

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Abstract

Observing System Simulation Experiments (OSSEs) are an important tool for evaluating the potential impact of proposed new observing systems. In addition, OSSEs can be beneficial in evaluating trade-offs in observing system design, and in developing and accessing improved methodology for assimilating new observations. OSSEs conducted by both NASA GSFC and NOAA have indicated significant potential for space-based lidar winds to improve numerical weather prediction. In this paper, we summarize OSSE methodology and earlier OSSE results, and present the methodology and new results from a "QuickOSSE" designed to assess the potential impact of lidar winds on the predicted track of a specific hurricane. .