

Supporting Information for

“Using large eddy simulations to reveal the size, strength, and phase of updraft and downdraft cores of an Arctic mixed phase stratocumulus cloud”

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Introduction

Text S1.

This supporting information provides a three-dimensional movie of the simulation of the Arctic mixed-phase stratocumulus cloud with both the 1.5-TKE and CLUBB schemes. The total condensate (liquid and ice) and vertical velocity are shown as as colored contours during the simulated 24-hour period.

Movie S1.

Three dimensional movie of the simulated 24-hour period from 117.5 to 118.5 GMT of the Arctic mixed-phase stratocumulus cloud. The cloud produced when the 1.5-TKE scheme is used is shown on the left, and the cloud produced when the CLUBB scheme is used is shown on the right. The units of the X, Y, and Z axis are in 10^3 meters. From the

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top of the cloud, condensate (in g/kg) can be seen as the rainbow contour, and the vertical velocity (in m/s) can be seen in the blue-to-red contours below the condensate.