Abstract Submitted
for the CUWIP21 Meeting of
The American Physical Society

Gravity Wave Study in the MLT using ICON-MIGHTI Temperature and Wind Observations SHREYA NAGPAL, University of California, Berkeley, CHIHOKO CULLENS, Space Sciences Laboratory, THOMAS IMMEL, Space Sciences Laboratory, University of California Berkeley, SCOTT ENGLAND, Virginia Polytechnic Institute and State University, COLIN TRIPLETT, Space Sciences Laboratory, GARY SWENSON, University of Illinois at Urbana-Champaign, BRENTHA THURAIRAJAH, DAVID ALEXANDER, Virginia Polytechnic Institute and State University, BRIAN HARDING, Space Sciences Laboratory, JONATHAN MAKELA, University of Illinois at Urbana-Champaign, MICHAEL STEVENS, CHRIS ENGLERT, Naval Research Laboratory, JOHN HARLANDER, St. Cloud State University, KENNETH MARR, Naval Research Laboratory, ICON COLLABORATION — Atmospheric gravity waves have important roles in driving atmospheric coupling processes from the lower atmosphere to the mesosphere, thermosphere, and ionosphere. NASAs Ionospheric Connection Explorer (ICON) satellite was launched on 10 October 2019 and has been observing atmospheric temperatures and winds in the latitude range of 10S-40N. Michelson Interferometer for Global High-resolution Thermospheric Imaging (MIGHTI) is one of the instruments on ICON measuring temperatures and winds. Using both temperature and wind measurements from ICON-MIGHTI observations, small-scale perturbations (¡ wavenumber 6) are extracted and analyzed in the altitude range of 90-105 km and are considered to be gravity waves in this work. Obtained gravity waves will be compared to other satellite observations including TIMED/SABER.

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Date submitted: 03 Jan 2021 Electronic form version 1.4