

2021 EOL Seminar (Virtual)

EVOLUTION OF THE GREAT PLAINS NOCTURNAL LOW-LEVEL JET AND RETURN OF UNSTABLE CONDITIONS AFTER A COLD FRONTAL PASSAGE

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DATE: January 19, 2021

TIME: 3:30 - 4:30 pm MST

WEBCAST: operations.ucar.edu/live-eol

QUESTIONS: Participants may ask questions during the meeting via Slido

ABSTRACT

This study investigates the evolution of the Great Plains nocturnal low-level jet (NLLJ) as warm, moist flow returns following a cold frontal passage. The study utilizes the ERA-5 reanalysis and 3-h radiosonde data taken during the International H2O Project field campaign. This talk will present new insight into the processes controlling the NLLJ intensity and structure including the possible role of variations in water vapor and radiative processes. The results also show that two mechanisms resulted in the destabilization of the nocturnal environment, weak (2 cm/s) ascent and differential advection, with implications for the eastward movement of nocturnal convection over the region.

EOL Seminar Series Coordinator: Jacquie Witte: jwitte@ucar.edu

This webcast will be recorded and uploaded to the
[NCAR Earth Observing Laboratory YouTube Channel](#)

For more information, contact Melissa Ward: mward@ucar.edu