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Data Collection from Atmospheric Soundings for Gravity Wave Detection[1] KATELYN POWELL, ZACHARY YAP, KATHLEEN MCNAMARA, JAMEY JACOB, Oklahoma State University-Stillwater — The discovery of atmospheric gravity waves and their capability to transfer energy through the atmosphere has accelerated the interest in weather balloon soundings and the data collected to locate and characterize the generation of gravity waves. By examining the formation of the gravity waves, which may be caused by wind shear, convection, or topography, one is able to get an improved understanding of how they might impact atmospheric conditions, with the interest in using the information to improve weather and climate preditions. This research is focused on using weather balloons and radiosondes to take atmospheric readings while in flight. From sounding data taken at sunrise, the observations indicate that the production of gravity waves might be similar to those previously observed during total solar eclipses. This presentation will discuss the experimental observation process and the methodology used to identify gravity waves of various types and how these observations are confirmed.

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