Abstract Submitted for the NWS19 Meeting of The American Physical Society

Investigation of student understanding of air resistance and terminal speed ANDREW HOOD, ANDREW BOUDREAUX, Western Washington University — The topic of air resistance has received relatively little attention in terms of research-based curriculum development. Even though students demonstrate an awareness of air resistance, they struggle to answer basic qualitative questions. For example, they sometimes believe that, because mass does not appear in the air resistance force formula, it does not need to be considered. This is not the case for an object falling at terminal velocity, where the air resistance force is balanced by the weight force. At Western Washington University, a lab activity has been created to strengthen student understanding. The talk will describe the lab, and present pre and post-assessments of student understanding to evaluate the effectiveness of the lab.

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Date submitted: 19 Apr 2019 Electronic form version 1.4