
REVIEWER COMMENTS

Reviewer #1: MWR-D-14-00145

Manuscript Title: An Analysis of the 7 July 2004 Rockwell Pass, CA Tornado:
Highest Elevation Tornado Documented in the U.S.

Authors: J. P. Monteverdi, R. Edwards, and G. J. Stumpf

Recommendation: Accept with Major Revisions

This paper presents the case that the 7 July 2004 Rockwell Pass, CA tornado is the highest elevation tornado documented in the U.S. The subject matter and rarity of high elevation events like this would certainly be of interest to many potential MWR readers. . Still, a couple major problems remain. The first major problem has to do with the estimation of the tornado's elevation. The second major problem involves a needlessly long discussion of storm mode around/during the tornado period and speculation of tornado development from non-mesocyclone or mesocyclone processes. The paper comes off seemingly battling with itself with too much speculation.

Major Items:

1. The authors have improved their discussion of the background on how the tornado elevation was determined and added a very nice graphic (Fig. 5) to help the reader. Since this paper makes the claim that this is the highest elevation tornado ever documented in the U.S., it is of great importance that the claimed elevation (and elevation range) is supported. Unfortunately, in this case, the tornado location is determined by a single observer with photographs from a single, line-of-sight, observation position

* Last paragraph of P11 (L234-L241): Highly speculative

* First sentence of P14: What parameters indicated the potential development of low-level rotation? The ones stated in the previous paragraph argued just the opposite.

* Last sentence of P14 (L302-305): This sentence is in conflict with itself because on the one hand it is supporting a non-mesocyclone process in tornado

development, but on the other, it is addressing the favorable addition of a low-level shear source (topographic channeling) that would seemingly be constructive for low-level mesocyclone development, and potentially, associated tornado development.

Minor Items:

1. L34: Suggest changing "? no evidence ?" to "? insufficient evidence ?"
2. Suggest eliminating the last sentence of the abstract. It comes across as placing sole reasoning for exclusion of a mesocyclone tornadogenesis association on the high LCL environment, when in fact, the vertical shear profile is also poor. Additionally, the authors undermine their own position by stating later in the paper that they do not have confidence in the LCL from their sounding due to the visual cloud base appearance.
3. L173: Eliminate second "location" in this sentence.
4. L198: Could eliminate "above".