**MWR-D-20-0191, Biernat et al., Response to reviewers on revised manuscript**

The authors thank the reviewers and editor for their feedback on the revised manuscript. Our responses (red) to the comments (black) are given below. We provide line numbers where changes are made in the manuscript to address the comments.

**Responses to Reviewer #2**

**Comment 1**

Change order of Tables 2 (number of CAOs) and 3 (mean radii of TPVs and cold pools) as the latter is referenced before the former in the text.

Information given in Table 2 regarding the number of unique stations that can identify CAOs is referenced on L206 of the latest manuscript, which is before where the information given in Table 3 is first referenced in the latest manuscript (L231). Although the rest of the information given in Table 2 regarding the number of CAOs is referenced later in the latest manuscript (starting at L346–347), we feel that since at least a portion of the information given in Table 2 is referenced before where the information given in Table 3 is first referenced, the order of Tables 2 and 3 should not be changed.

**Comment 2**

L134: " … examine their mutual climatological linkages", remove "between TPVs, cold pools, and CAOs"

Suggestion has been adopted (L134 of latest manuscript).

**Comment 3**

L209: Phrasing is confusing: "(the one exception is Great Falls, MT, which is only located within 700 km of Billings, MT)" → Is this station further away than 700 km or do all other stations have more than one other station within 700km?

Wording of phrase has been modified (L208–210 of latest manuscript). There are at least two stations located within 700 km of each station except Great Falls, MT. Only one station (Billings, MT) is located within 700 km of Great Falls, MT.

**Comment 4**

L227: "… grow in size …"

“…grow is size…” has been fixed to “…grow in size…” (L226–227 of latest manuscript).

**Comment 5**

L576: "… plays an important role in the intensification of TPVs …" (?)

“…cooling of TPVs and cold pools…” has been changed to “…intensification of TPVs and cold pools…” (L576 of latest manuscript). Cooling of TPVs and cold pools indicates an intensification of TPVs and cold pools, so we feel that either “cooling” or “intensification” can be used, with a preference towards using “intensification.”

**Responses to Reviewer #4**

**Comment 1**

L116: "often may meander" seems awkward. Shorten to "often meander".

We agree. Suggestion has been adopted (L116 of latest manuscript).

**Comment 2**
L226-7: modify to "…pool grow in size…"

See our response to Comment 4 of Reviewer 2.