A fix to mitigate false convective identifications (IDs) in strong bright band areas was implemented. The convective ID in the MRMS precipitation type algorithm relies on many factors, which include: 1) vertically integrated liquid (VIL); 2) composite reflectivity (CREF); 3) reflectivity at the -10C height (REF_m10C) and 4) the seamless hybrid scan reflectivity (SHSR) and 5) surface temperature. The algorithm identifies convective core points first, and then applies a seeded region-growing to delineate all convective areas. False convective IDs can be generated when a strong bright band area is near convective storms, and the region-growing may expand convective IDs into the bright band area. The new logic added a VIL constraint when identifying the convective cores and an area size constraint when growing the convective region from the cores. The added constraints successfully mitigated the false convective IDs (Figure 16).



Fig 16. An example of false convective ID (white circle) in MRMS v12.1 near KBOX radar at 1700 UTC 23 Nov. 2020. A convective line was located along the longitude of 70W and a large stratiform area was located to the west. Both the CREF and seamless HSR (not shown) were high in the stratiform area resulting in a false convective ID (white circle) during the seeded region-growing. Additional VIL and convective area size constraints in v12.2 were able to eliminate the false convective ID.