

Suffern Paul

From: [REDACTED]
Sent: Thursday, February 21, 2019 9:20 AM
To: [REDACTED]
Subject: Re: Does MRMS contain TDWR dataset and how much does it weight that dataset?

We don't include the TDWR data right now. TDWR radars are C-band and of comparatively low quality. We've been working for the past 1.5 years to try and QC some of the TDWR issues and have not been able to deal with one big problem. The way the TDWR data is streamed is lossy, so there are whole sectors that are missing most returns. C-band radars also suffer from considerably more attenuation than the S-bands. So, if we were to merge the TDWRs with the full national mosaic, we would be harming the full product and causing the QPEs to be pretty significantly underestimated in some places/circumstances.

What we are now in the process of doing is looking to see whether there is benefit to merging the TDWRs in the max-cref product. We're just about to go live with the OKC TDWR in our experimental MRMS system and will add other TDWRs as they are updated and become available.

One additional thing about TDWRs that has stymied our progress: the level 2 returns are live-streamed to NOAA. They never make it off the radar. We need the level 2 data to remove nonmeteorological targets and to reduce latency. The only level 2 data we have access to are from the 15 TDWRs that are live-streamed to the FAA's tech center. Even that stream is not "operational" (i.e., not a fail-safe option that the NWS would consider using operationally). Every few months, I approach the NWS/ROC about whether they are going to start collecting and streaming this data. The response is always that it's on their to-do list and should happen in the next few years. We've been hearing this response for over 15 years.

So, that's the long answer to what you've asked. In short, we're looking into it. Would you mind sending me the dates and TDWR radar involved for your case? If it's a radar we stream, I can have my research associate take a look and see what happens if that radar is merged into the full mosaic.

Please let me know if you have other questions. -Heather

On Thu, Feb 21, 2019 at 8:05 AM [REDACTED] wrote:

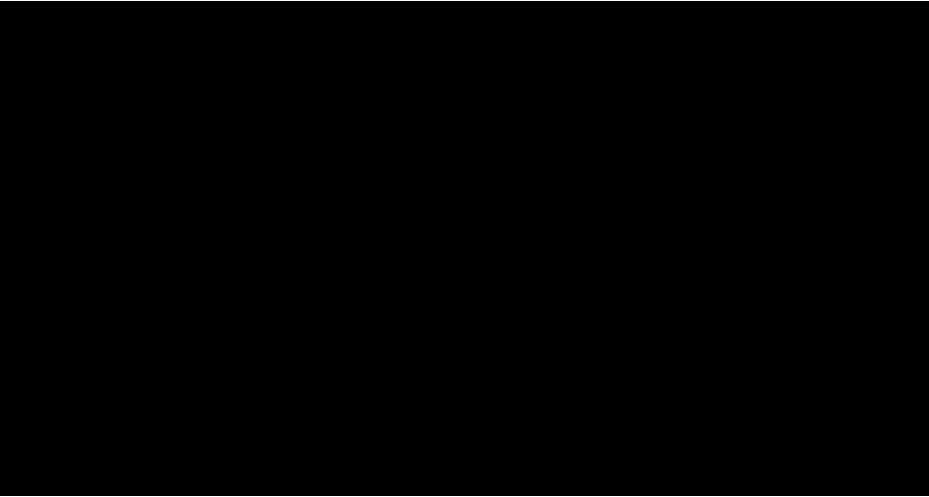
Hi Heather,

I hope that your Thursday is going well! I'm working a case where TDWR data clearly shows the precip, but WSR-88D doesn't (below the beam)... just curious does MRMS use TDWR data? I went to the website:

<https://www.nssl.noaa.gov/projects/mrms/>

and pulled the latest "fact sheet" but it was from 2015... do you have a newer fact sheet that I could reference? On the above webpage the "current work" talks about TDWR but doesn't say yes or no if embedded yet. Trying to see if MRMS (if contained TDWR) would/could have shown something... Thanks!

Paul



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