Wall Cloud/Inflow Tails
Posted by James1 - 2009/10/12 00:02

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Ok. A wall cloud is the downward extension of a mesocyclone. They are usually found on the updraft base (Rain-free base if you wanna call it that). Although they can be found under the flanking line towers. Rotating wall clouds are a good sign of maybe producing a tornado as well as wall clouds sucking up scud(altough NOT ALL rotating wall clouds produce tornadoes!!).

Now the inflow tail can be sometime seen attached to the wall cloud. The inflow tail brings cooled rain into the wall cloud(which is why you might see the wall cloud expand a bit). The inflow tail can usually be seen tilted more towards the rain shaft(if one is present). Inflow tails are not always present with wall clouds so do not take that as a good indicator of whether or not a wall cloud will produce a tornado.

NOTE: some tornadoes do not form from wall clouds and may descend directly from the updraft base.
Image courtesy of:http://images.search.yahoo.com/images/view?back=http://images.search.yahoo.com/search/images%3Fp%3Dwall%2Bcloud%2Bwith%2Binflow%2Btail%26ei%3Dutf-8%26y%3DSearch%26fr%3Dcrmas&w=640&h=480&imgurl=freepages.misc.rootsweb.ancestry.com/~fkruse/Windthorst/Wall%2520Tail%2520Cloud.jpg&rurl=http://freepages.misc.roots
http://www.tornadovideos.net/images/fbfiles/images/Wall_Tail_Cloud.jpg

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Re:Wall Cloud/Inflow Tails
Posted by sean - 2009/10/12 00:37

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so.. the fact that a supercell creates a wall cloud or inflow tail or both does not increase the probability of rotation in the storm!? :ohmy: it seems ive been duped :silly: my 2 storms ive ever seen tornados come from both had VERY pronounced wallcloud/inflow tails on lp cells, I guess i jumped to conclusions :unsure: thanks for clearin that one up bro.. i would give you another karma point but you just took my point like 3 mins ago :lol: raincheck~!

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Re:Wall Cloud/Inflow Tails
Posted by sean - 2009/10/12 00:39

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forgot something i was going to add.. and they both decended from the updraft base :unsure: which confuses me more considering that they should have been spun up in the wall cloud right? :unsure: i confused :silly: enlighten me grasshoppa :woohoo:

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Re:Wall Cloud/Inflow Tails
Posted by James1 - 2009/10/12 00:40

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:laugh: well it's kinda confusing sometimes. It took me awhile to get it down pat so it's new for me as well.

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Re:Wall Cloud/Inflow Tails
Posted by James1 - 2009/10/12 00:41

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Well a wall cloud is only due to condensation up there around the centralized area of rotation. It's like with a tornado. The only reason there is a funnel is because of condensation. Sometimes there is no funnel at all.

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Re:Wall Cloud/Inflow Tails
Posted by sean - 2009/10/12 00:44

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OOooOooo okay.. so that means that even if their is a wall cloud or inflow tail present the funnel can decend randomly from anywhere in the cell?...

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Re:Wall Cloud/Inflow Tails
Posted by James1 - 2009/10/12 00:49

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Well not exactly. It can only come from under the updraft base. But what i'm saying is that the only reason the wall cloud or inflow tail. But i have never seen a funnel descend from the base if there is a wall cloud there. Because the wall cloud indicates the area of extremely tight rotation and the funnel is even tighter so it would come from the wall cloud if one is present. It's wherever the rotation is sean.

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Re:Wall Cloud/Inflow Tails
Posted by sean - 2009/10/12 00:52

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well it seems i myself have witnessed 2 occasions of meteorologic annomalys! :woohoo: swwwwwwweeeeeeeeettttttttt :woohoo:

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Re:Wall Cloud/Inflow Tails
Posted by James1 - 2009/10/12 00:55

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I hope i'm not confusing you more than i am helping sean.

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Re:Wall Cloud/Inflow Tails
Posted by RadarNut - 2009/10/12 01:49

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Great job James!

It is as awesome as I expected. Can't wait for more.
You explained everything, so no questions from me. :cheer:

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Re:Wall Cloud/Inflow Tails
Posted by James1 - 2009/10/12 01:50

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Dude make sure to back check some of this though. I don't know how accurate everything is.

P.S. Mike please send me the stuff i need to edit out.

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Re:Wall Cloud/Inflow Tails
Posted by RadarNut - 2009/10/12 02:02

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James1 wrote:
Dude make sure to back check some of this though. I don't know how accurate everything is.

OK, here is my check.

Nothing seems to be denying the laws of physics.

Well that is about as much I can check without possibly being wrong. Everything seems fine to me.
:laugh:

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Re:Wall Cloud/Inflow Tails
Posted by anarmyofone927 - 2009/10/12 02:16

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Alright coming from an argument between me and james in which he was right haha just a side note that tornadoes that descend from the updraft base themselves will usually be weaker and those that descend from a wall cloud will usually be stronger due to the fact that rotating wall clouds that spawn tornadoes

generally have some pretty intense rotation. One example is the Greensburg Tornado in 2007 an EF5 dropped from a rotating wall cloud.

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Re:Wall Cloud/Inflow Tails
Posted by SkyEyeJo - 2009/10/12 16:18

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James1 wrote:
Dude make sure to back check some of this though. I don't know how accurate everything is.

P.S. Mike please send me the stuff i need to edit out.

Good advise there, James. (Mike?)

Also, and FYI, the links on your first post in this thread are goofy. Might wanna back 'em out and repost? Just a thought.

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Re:Wall Cloud/Inflow Tails
Posted by anarmyofone927 - 2009/10/17 01:45

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Ya what she said James edit out the link and reput it back in its not correct.

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Re:Wall Cloud/Inflow Tails
Posted by Brian Emfinger - 2009/10/17 16:18

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a few examples:

http://www.realclearwx.com/images/03sss.jpg

http://www.realclearwx.com/images/12sss.jpg
http://www.realclearwx.com/images/12rrr.jpg

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Re:Wall Cloud/Inflow Tails
Posted by RadarNut - 2009/10/17 16:50

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:ohmy: I think I can see a funnel coming down from that last wall cloud. ;)
Thanks for the examples James, they definitely help! :laugh:

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Re:Wall Cloud/Inflow Tails
Posted by anarmyofone927 - 2009/10/17 17:08

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Something to remember as well when identifying wall clouds is that wall clouds slope up and away from the rain. Don't get them confused with common shelf clouds which slope down and out away from the rain.

Wall Cloud (Link only Image too Large) :
http://vermilionweather.com/wallshelf/svr3794.jpg

Shelf Cloud (Again only Link Image too Large) :
http://vermilionweather.com/wallshelf/6-6-2007shelf-cloud-fort-pierre.jpg

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Re:Wall Cloud/Inflow Tails
Posted by SkyEyeJo - 2009/10/17 17:45

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RadarNut wrote:
:ohmy: I think I can see a funnel coming down from that last wall cloud. ;)
Thanks for the examples James, they definitely help! :laugh:

Um, Radar? The photo examples above are from Brian Emfinger, one of our intrepid Chasers. :)

Brian, perfect pix for this topic - especially the first shot - thanks much! :laugh:

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Re:Wall Cloud/Inflow Tails
Posted by RadarNut - 2009/10/17 18:01

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Oh... sorry! :dry: My bad.
I was lazy and didn't look who posted.
I meant " Thanks for the examples Brian, they definitely helped! :laugh:"

Sorry again! :lol:

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Re:Wall Cloud/Inflow Tails
Posted by SkyEyeJo - 2009/10/17 18:12

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Brian,

Looking at that first photo again; was that taken in AR? Eastern MO?
Can you share a bit about it? - it really is an exciting shot.

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Re:Wall Cloud/Inflow Tails
Posted by Brian Emfinger - 2009/10/17 23:41

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Jo - 1st pic was from Sept 22, 2006 near St. Paul in NW Ark. The storm was just put under a tornado warning when I got that. I believe the storm died just a bit later.

2nd pic was from May 5, 2007 and it did produce a tornado just a few minutes later.

3rd pic was from near McAlester on March 21, 2005. It was also under a tornado warning and while there were funnels it never got down to the ground.

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Re:Wall Cloud/Inflow Tails
Posted by SkyEyeJo - 2009/10/18 20:07

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Thanks, Brian.

Again, nice touch adding your chase photos to this thread topic. Schematics are fine, but after time, they tend to get dull, dull, dull.

Tornado or no tornado, that first pic is a doozy. :laugh:

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Re:Wall Cloud/Inflow Tails
Posted by weatherwarrior - 2009/12/04 01:12

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Ya Good job, that's a really great definition!! i'm learning so much here!! thanks to everyone!

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