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 To learn more about how the weather works why come to Weather School?
 For more information see <http://www.weatherschool.co.uk>

Hi,

A bit of a different format to this Weather School Musing, simply because there are so many pictures!

If you have been caught by the showers today,. You will know that they have been beefy things!

In fact today has been a good illustration of an upper trough of cold air passing through and triggering showers as it goes. You see, the colder air that moves in aloft destabilises the atmosphere encouraging the growth of cumulus clouds. The air within the trough originated at the poles, hence the reason that if you are behind the showers this afternoon, you have beautiful white cumulus clouds set against a perfectly blue sky (if you wonder what I mean take a look at the shot from the Newtown Weather camera below <http://www.newtownweather.co.uk/webcam.html>).

The two upper air charts below are for 500mb (about 18,000ft) and I have marked on the troughs (these are the dashed lines). At midnight the trough was just coming into western Ireland, but by midday it had split in two and was crossing the mainland UK, whilst a portion of it had hung back to the west.

Compare the Newtown camera to the one from Weatherby race course which is currently on the trough itself. Here the cumulus are still large.

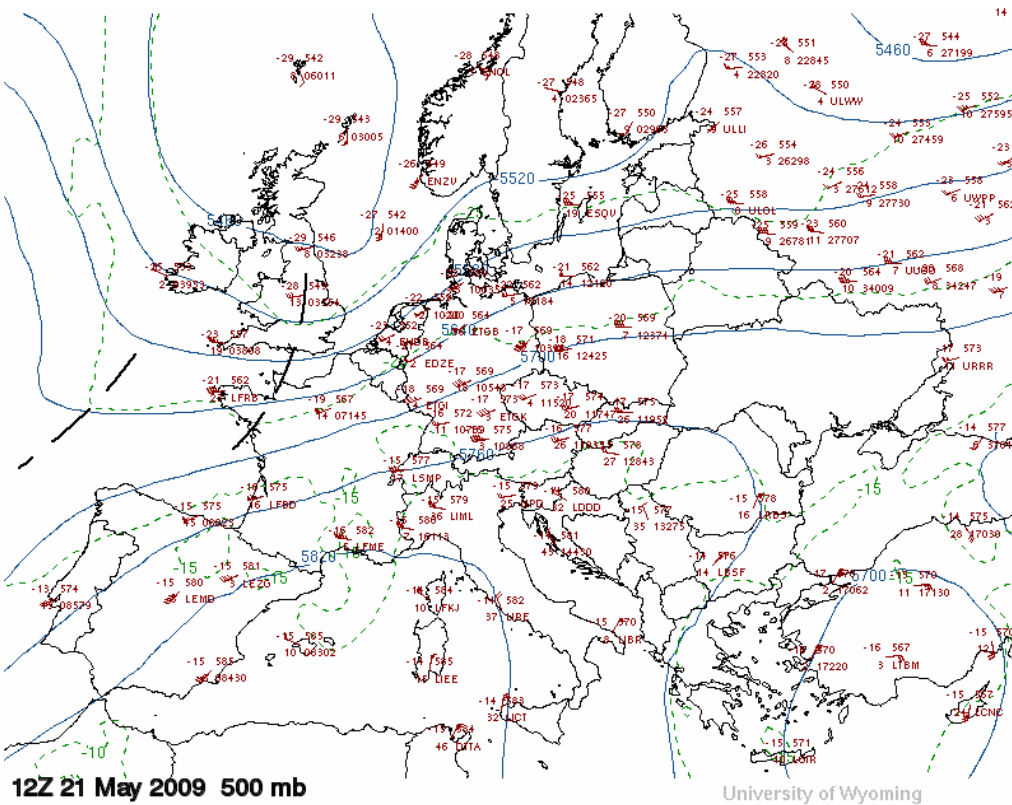
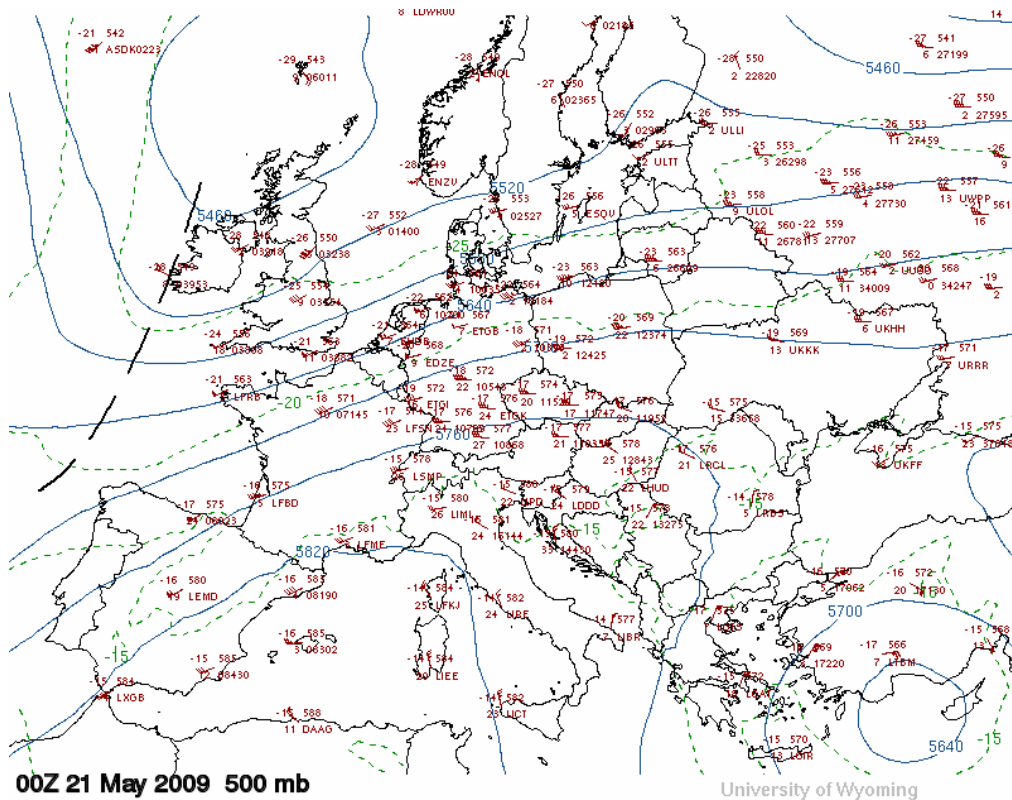
Now, once the trough has moved through the air at upper levels is warming again. This means that the air is become more stable and the tops of the clouds are falling and they appear as they do at Newtown.

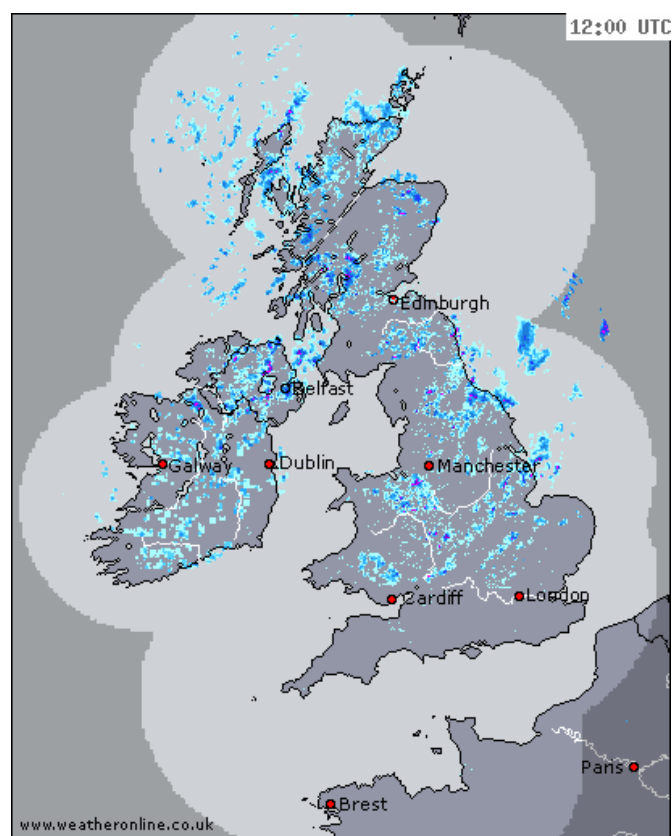
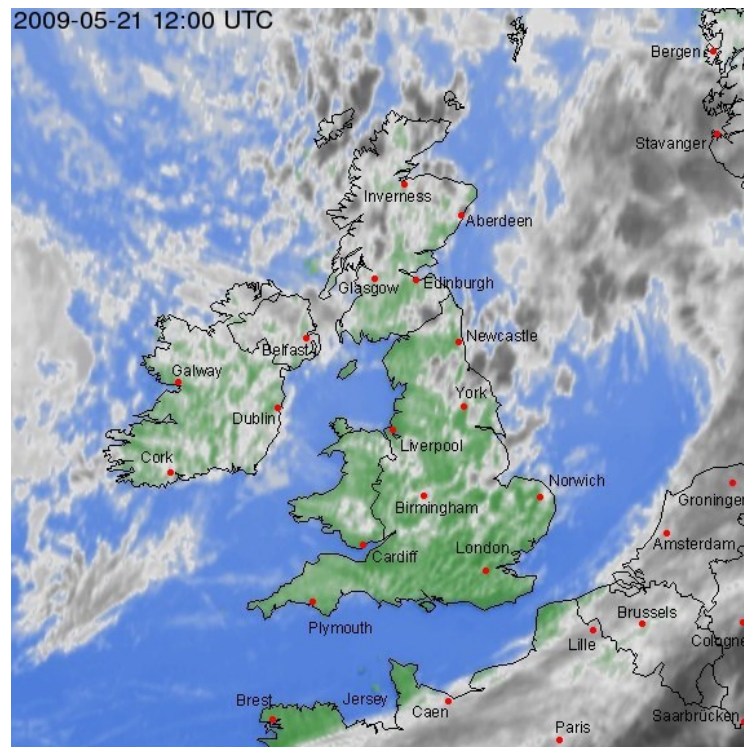
So, by looking at the 500mb charts and assessing when upper troughs will move through, you can assess as to whether showers are likely to form. Often a warm,. Fine summers day can turn wet as upper troughs run over the surface warm air.

Take a look at the satellite picture for 1pm this afternoon, and the associated radar picture. See how the showers are associated with the trough marked on the 500mb analysis for 1pm? Bazooks! It works!!!!

Some of the best 500mb forecast charts are at Weather online at (<http://expert.weatheronline.co.uk/>) marked at 500hpa Expert maps. Or Wetterzentrale have them too at <http://www.wetterzentrale.de/topkarten/fsavneur.html>

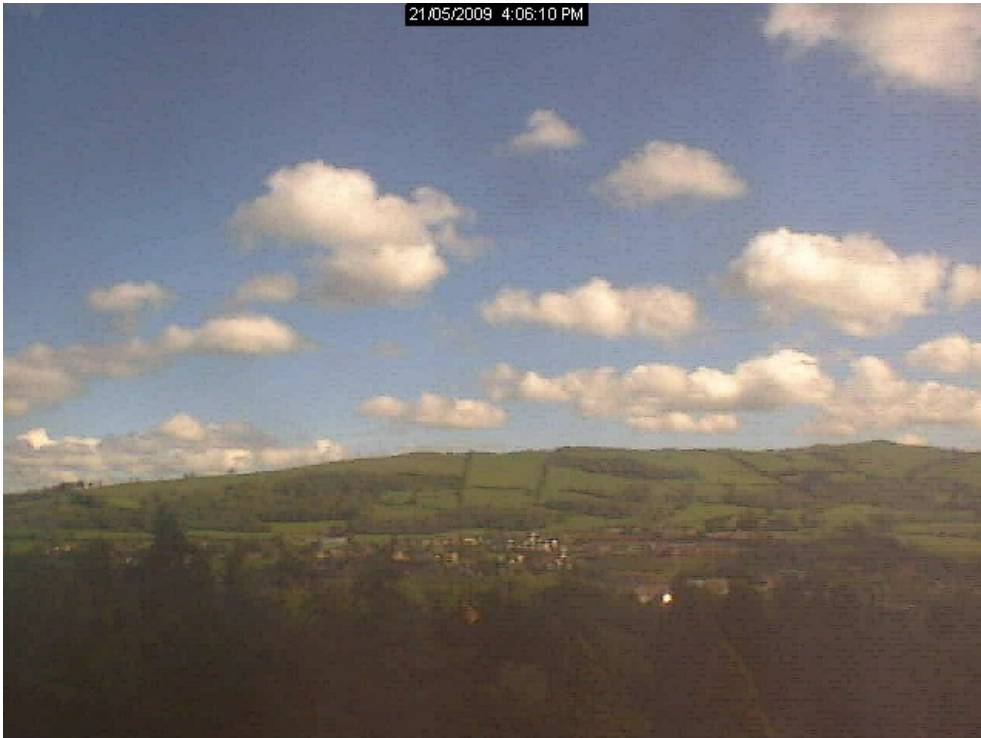
Hope that is useful?
Simon.



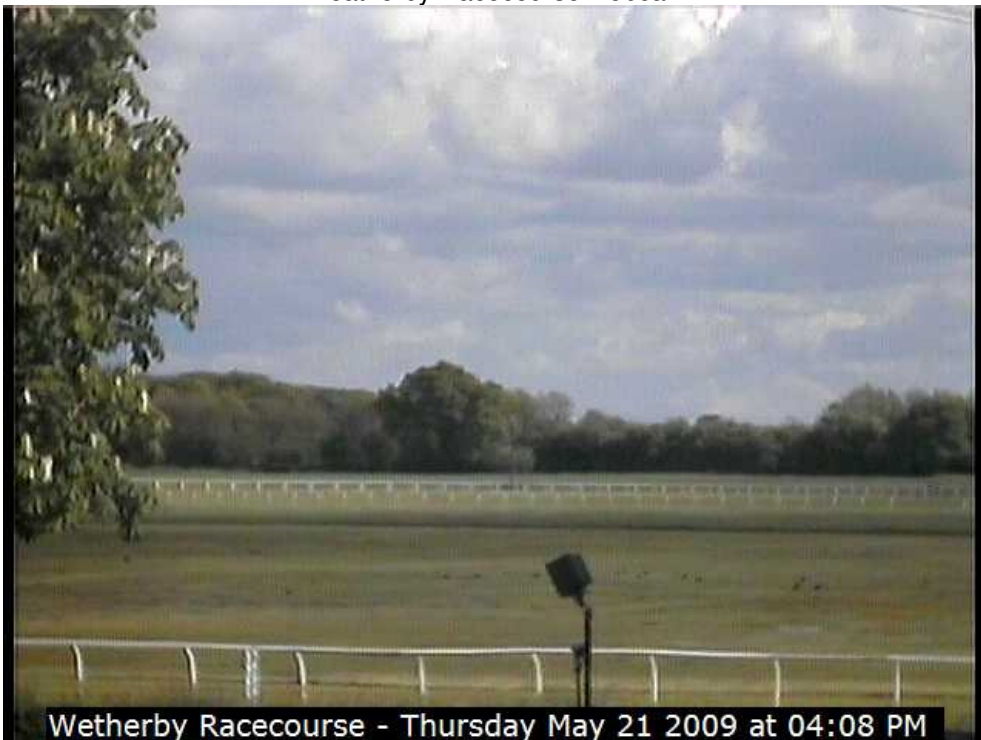


Newtown Webcam

21/05/2009 4:06:10 PM



Weatherby Racecourse webcam



Wetherby Racecourse - Thursday May 21 2009 at 04:08 PM

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