



FAMILY OF STORMS OVER THE GUADARRAMA RIDGE – JUNE 26, 2002

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One of the most popular activities among weather buffs, and surely one of the basic reasons why so many people call us "crazy", is storm-chasing. Storm-chasing means anticipating the storm as much as possible, watching it develop, following the rain curtains along their path, and taking shots of everything that's happening up there, while in the process trying of course not to get struck!. The surge of adrenalin that comes with this, mixed with a certain sense of adventure, prey-hunting, and quick decision-taking, turns this activity into something unique.

On June 26, 2002 I had the chance to have one of these experiences, with a wonderful "family of storms". So here is the account of what happened in that memorable afternoon and how I lived it.

It seemed clear this was meant to be THE day. In fact, the signs of instability were clear from early in the morning. Anyway, looking back I think now it was more the remains of last night's activity than actually new storms building up. Around midday the skies cleared up almost completely, and I got this feeling of starting from scratch.

However, around 5 p.m, as I was posting on the Meteored forum, I saw the sky get suddenly dark, really dark actually. I looked out of the window and I could see the edge of a huge cumulonimbus (Picture 1).



Picture 1

The air was becoming restless, I could hear thunder in the distance. And I felt "the call", so I didn't think twice. My stormchase backpack was ready from the previous day's chase (lousy chase, by the way). Ready with warm clothes, compass, notebook, cell phone... So I grabbed it, along with my digital camera.... and hit the road! After a few minutes driving, the thermometer in the car read 30°C (86°F).

Just right after leaving home I realized that this was serious. Here's a formation of some massive and clear-cut mammatus clouds, just over Colmenar Viejo where I live (Picture 2).



Picture 2

The formation stretched to the E-NE, towards San Pedro Peak. The core of the storm was located W-SW from Colmenar. Giving it no second thoughts, and after capturing again the mammatus (Picture 3)



Picture 3

and the edges of the Cb (picture 4)



Picture 4

I headed for Cerceda, NW from Colmenar. Oncoming cars had headlights on and wipers at full power (it was around 6:30 p.m.). In a few minutes the first big drops appeared and the road got wetter by the minute (Picture 5).



Picture 5

Just when I reached Cerceda it started to hail. The core of the cell was over La Maliciosa peak, dragging along the Cuerda Larga ridge. I stopped the car to take some shots (realizing that hailstones really do hurt!) (Picture 6), and after that headed on to Manzanares el Real.



Picture 6

Now I was driving parallel to the first cell. La Pedriza mountain looked just beautiful, and some lightning struck right ahead of my position (Picture 7).



Picture 7

I was getting closer and closer, so I tried to drive more slowly now. I entered the Regional Park area, some way northwards. The rain curtains wouldn't let me see the mountain, just some 3 km away (Picture 8).



Picture 8

I stopped again and watched the storm go by. The sky cleared up a little. Actually the sun came out so I got off the car to breathe in that incredible smell. Temperature was now 20°C (68°F), that is, a 10-degree drop in just twenty minutes! Well, not actually on the same place, but still I couldn't help being amazed.

Looking SW I had the impression that cumulus kept building up and were actually heading towards my position (Picture 9).



Picture 9

So I decided to stay and wait for them. And sure enough, after some ten minutes it started to rain again, with heavier lightning this time ... to the point I had to get in the car and close the windows. A couple of bolts struck nearby, and I must admit now I wasn't actually feeling very comfortable. I guess we are not THAT crazy after all, so I got the hell out of there. I decided to drive to Soto del Real, so as to get in front of the storm.

When I got to Soto only a few drops were falling, but the sky looked threatening enough all the same. Lightning kept striking behind me, just over the Manzanares reservoir. At Soto I took a country road with wonderful views (Picture 10). I knew this road from a local friend; he uses it on his berry-picking trips.



Picture 10

The road is not exactly in excellent condition, but it suited me well enough to watch the second cell. Till this second cell actually caught me, right in the middle of nowhere. This time my courage got the best of me and I simply stayed there (Picture 11).



Picture 11

I remembered what Rayo told us once in one of the forum gatherings. He was in his car, surrounded by lightning, taking care of not touching anything metallic. So that's what I did, just in case. For good or for bad, I came out alive, even though many of the bolts struck very near, and more than once I got real shivers down my spine.

As the sun came out again in the southwestern sky, I hit the road once more, driving east after the storm. I nearly got to Miraflores de la Sierra, where being higher I had a superb view (Picture 12).



Picture 12

And I was about to put an end to my chase when I looked back and saw clouds gathering again, just over Colmenar, to the SW (Picture 13).



Picture 13

This new cell, the third of my chasing day, was different. Bigger, more compact, darker, and dropping those just unbelievable curtains!. Once again I headed for Soto, where the rain was simply torrential (Picture 14).



Picture 14

I headed for Colmenar. I drove quite slowly as the storm was moving in the opposite direction and I wanted to make it last! When I reached a side road to the Isabel II channel, I stopped there (Picture 15).



Picture 15

I could see that this cell was indeed gigantic. I parked the car facing south, with the San Pedro Peak in the background. To the E the villages of Cerceda and El Escorial, already under clear skies. Behind me, to the N, the Cuerda Larga ridge, with few clouds. But to the W (Miraflores, San Agustín...) God, what an awesome sight (Picture 16).



Picture 16

I started to snap my camera just like crazy. Right then I got a call from my Meteored buddy, Pedromad. He couldn't believe my words. Hailstones began to fall with incredible fury. I had to put my hands on the windshield, fearing they could be broken any time (Picture 17).



Picture 17

Everything got dark; many cars stopped on the roadside. This hailstorm lasted for about three minutes; temperature was then 18°C (64°F). East of my position skies were beginning to clear up, so I instantly thought: hail plus rainbow! And sure enough, there it was, ten minutes later (Pictures 18, 19).



Picture 18



Picture 19

The deafening noise of the hailstones, the car seats drenched because of the open window that was life

at its best! ... And to the NE I could clearly see the "white trail" of the hailstorm, which was now raging over Soto del Real (Picture 20).



Picture 20

And of course, clouds twisting and tearing over me, a sign of severe convection (Picture 21).



Picture 21

There I lingered, till the rain finally stopped and the afternoon got calm ... 22°C and an impressive family of storms moving and thundering away to Burgos (Pictures 22, 23) (Later on, I had the chance to admire a set of simply impressive pictures of that storm).



Picture 22



Picture 23

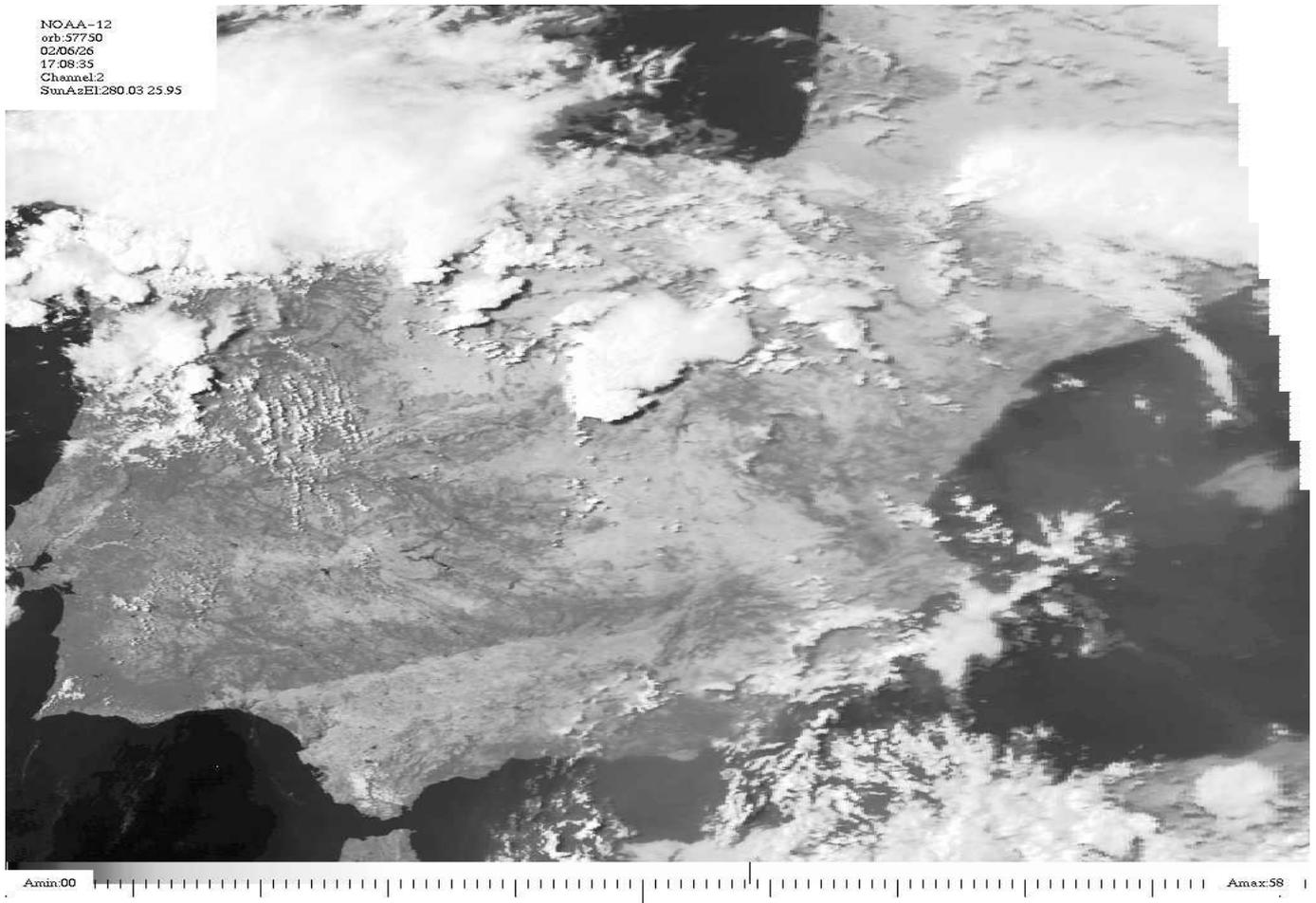
When I got back to Colmenar I could see a lot of water lying on the streets, but certainly less that in Soto

or Miraflores. My weather station recorded 5 mm of rain, with some earth in it.

Additional pictures.-

Here are some satellite pictures of the Iberian Peninsula that day plus a map of Europe showing the number of lightning bolts.

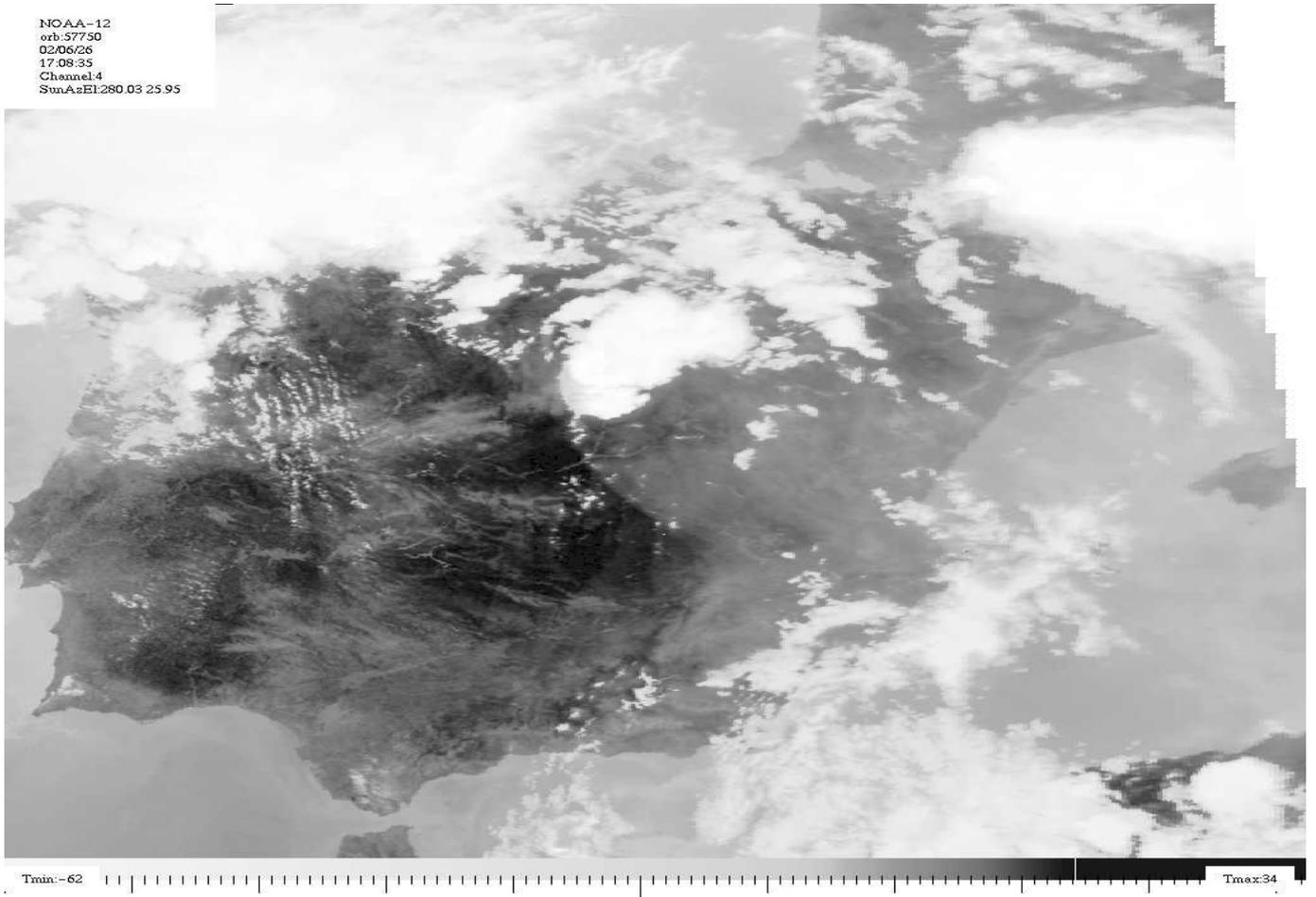
This is a picture taken by the NOAA-12 satellite (visible channel) at 19:08 h. It clearly shows the convective nuclei building up over the Central Cordillera and developing in the N-NE direction.



Meteosat visible 260602 19:08

The next picture, taken by the NOAA-12 satellite (infra-red channel), shows the "thermal map" of the Iberian Peninsula at 19:08. The cold tops of the cumulonimbi are displayed in bright white.

NOAA-12
orb:57750
02:06/26
17:08:35
Channel:4
SunAzEl:280.03 25.95



Tmin:-62

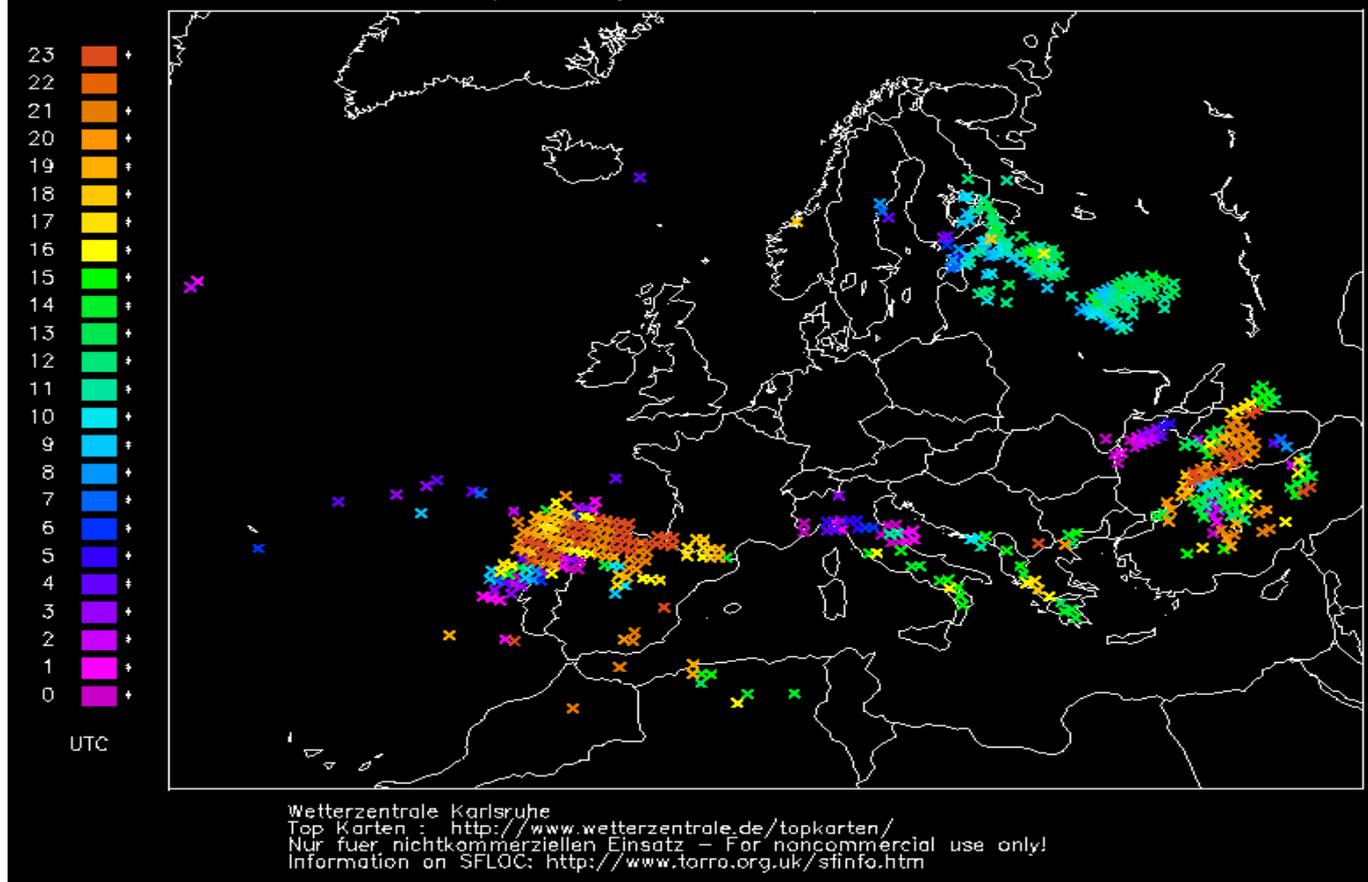
Tmax:34

Meteosat infrarrojo 260602 19:08

To sum up, this storm system dumped between 50 and 100 mm in some locations, the area around Rascafría having collected the biggest amounts.

Now take a look at this map of lightning bolts of that day – a really “busy” day. You can easily see the path followed by our system: from the Central Cordillera all the way to San Sebastián on the Bay of Biscay.

Sferics (Blitze) 26Jun2002 00 – 23 UTC



Mapa Rayos 260602 00-23 UTC

I would also like to emphasize on the height reached by the Cb clouds, with echo tops around 14 km high over the Lozoya Valley between 7 and 7:30 p.m. Maximum reflectivities (58 to 60 dbz) were reached at that time too.

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SSW Member

[Top](#)

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