



# Lo Forestalillo

Nº 84

08-06-2006

Situation of the Forest Fires in Catalonia

## Cereal & Topographic fires, the combat starts

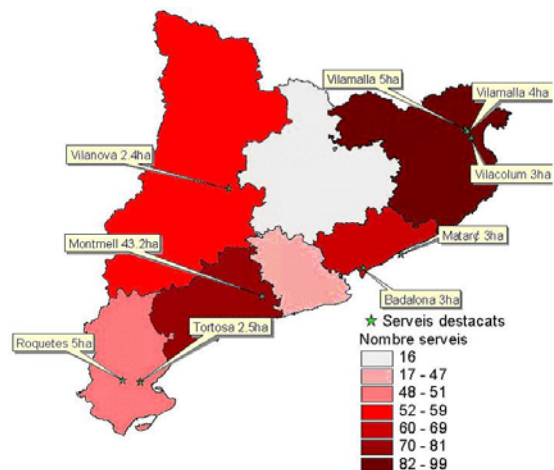


Image of the work of the water lines in the fire of Montmell

### What have we

Comparative tendency since beginning of the year until:

	06/06/2005	06/06/2006
Nº Services (VA+VU+VF)	4358	1891
Area (ha)	2127	2658



Number of services (VA+VU+VF) from the 21/05 until 06/06/06, and services of >2 ha.

VA: services of agricultural fire  
 VU: services of urban fire  
 VF: services of forest fire



## Description of the situation

### Evolution of the drought (availability of live fuels and large dead fuels)

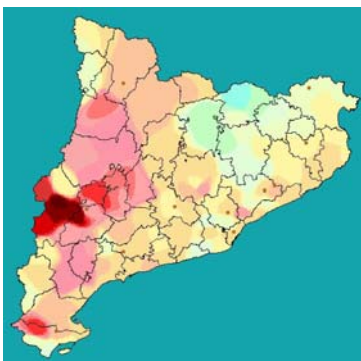
The amount of rain has been very inferior to the normal average during the months of April and May; the May rain's amount has been of **58 mm** for the last decades. However this year, It has been of 6mm., less than 10%.

The behaviour of the most recent forest fires has shown the availability of the fuel in the different regions of the country. Although the availability of the agricultural thin fuel (cereals, for example) is homogeneous all over Catalonia, the availability of the live fuel and the 10 hours time lag is smaller. This fact is the most important cause for the first fires of the season; we are now when the external forest fire, which has started outside of the forest (coming from an agricultural field or from another kind of area, like deserts, for example), gets into the forest and it loses speed of propagation, (the loss of the water's content in the forest is slower).



**Fig 3.** Image of the fire in the cereal's fields of Santpedor; REC, 05/06/06. The availability of the agricultural fuel of 1 Hour of Delay is high.

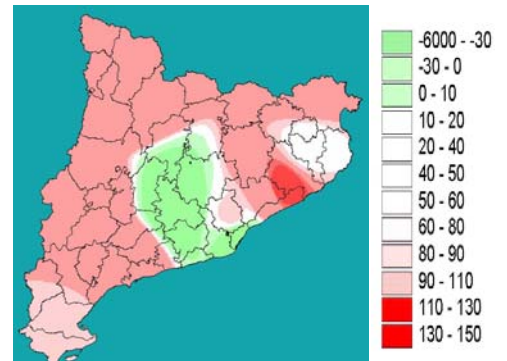
The meteorology of the most recent days, which characteristics are high temperatures and lack of rains, has entailed an advance of drought, from west to east.



**Fig. 4.** Drought accumulated in 07/06/06.



**Fig. 5.** Drought accumulated in 07/06/05



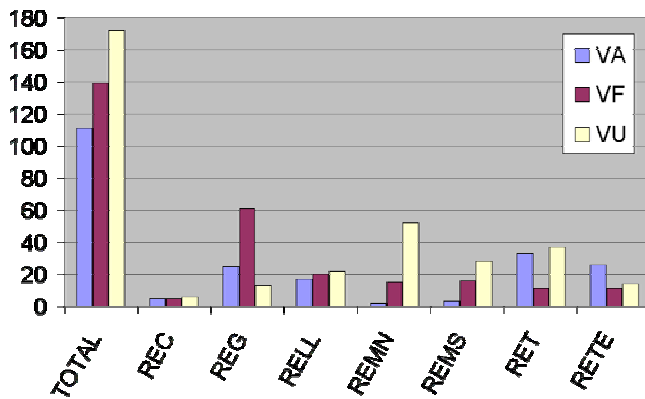
**Fig. 6.** Percentiles of Drought (% with respect to the normal) 07/06/06



## Evolution of Services

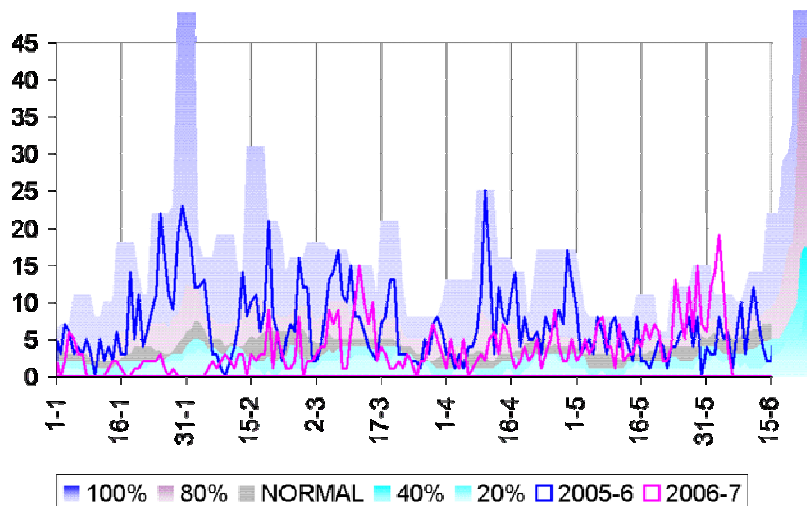
### What have we had?

As it was said in the last number, the flat and sunny places, geographically dominated by the lack of trees, has had the highest number of fires of the season, and this tendency will continue until Juny, 24th. Main runs of fire have propagated by a front of points. Flanking and backing fire are under the capacity of extinction of hose lines (Sant Sadurní d'Anoia 03/06/06 with lengths of flame among 2-3 m). The services in abandoned agricultural fields, sites without building, margins of fields and roads, will keep on increasing during the beginning of the summer; especially in the two metropolitan regions, RET and REG.



**Graph 1.** Total number of services by region and type. VA=agricultural, VU=WUI, VF= forest **since the 21 May until the 5 June.**

**Graph 1.** Mbs13 (services of forest fire) from 01/01/06 until 19/03/06, compared with the same period in 2003/4 (blue line) and compared to the normal number of fires (in grey 50% ; in blue, lower than normal; in rose, higher than normal) for the last 5 years



### What is forecasted?

An increase of the emergencies of Urban Vegetation and Agricultural Vegetation is forecasted, especially in the flat lands of the interior.

The availability of thin fuel is high; therefore, we expect again fast fires and with spots at distances superior to the tens of meters.

Between 13:00 and 18:30 is the most critical time for the reinforcement of the local winds and the fall of the relative humidities.



## For regions

REG

The episodes of wind (02/06/06) have marked the last services; the simultaneity was the key factor for hampering the efficient managing of this services (see section 3.4). The fine fuel is available.

**What is forecasted** The region enters in a situation very similar to the regions MN and MS, it waits that the entry of the hot air mass facilitates the propagation of fires of Urban Vegetation and Agricultural Vegetation.

REMN

The dead fine fuel is the factor that activates the services, the effects of the last rains start to disappear, incorporating the half-fuel to the fire. The cereals are already ready for burning, even though it still will take a pair of weeks to retire.

**What is forecasted** Increase in the services of urban and agricultural vegetation in a progressive way. Forest fires can start to propagate with medium intensity.

REMS

In this moment it is necessary to differentiate two zones with 2 speeds from different propagation; the north of the region with fields of cereals (fast fires) and south half, slower fires (Sant Sadurní, 03/06/06, <0,5 ha). Attention in the open forest structures (regenerated of white pine, shrubs...).

**What is forecasted** Slow increase of the services of Agricultural Vegetation and Urban Vegetation; caused by the hot air mass that will mark the end of the week, and the beginning of the harvesting in the north western quadrant of the region.

REC

The fire of Santpedor (14 has, 05/06/06) shows the availability of agricultural fuel; fast fires and of medium intensity. It has just started.

**What is forecasted** Attentive to the southwest zone of the region. It expects an increase of the number of services of Agricultural Vegetation, and a slow and progressive complication of the fires that can affect in open forest masses (< 15-20 years).

RETE

For the time being calmness, although the levels of drought is quite high, the last controlled agricultural fires of the month and the reduced moistures can originate some important fire in the internal basins. Attention to the reinforcement of the wind of South at 16:00 with topographical winds.

**What is forecasted** Progressive increase of the activity regarding services in agricultural terrains and urban terrains. Reduced moisture in the interior.

RET

The first important fire in campaign of summer it was in Montmell. However, it was a topographic fire dominated by slope and it did not show extreme behaviour, it is necessary to be keep attention to the regions of the interior and to the descent from the relative moistures, as well as to the entered of the sea breeze towards the afternoons in these zones.

**What is forecasted** It waits for an increase of the ignitions in the regions with cereal fields, in the south. However, in the north of the region the harvesting is delayed. Also a progressive increase of the services is expected in the urban zones (around the capital).

RELL

The Region continues showing a lower than expected activity of cereal fire (especially if we know already that they have started the harvesting ). Forest Fire of Vilanova de l'Aguda 2,5 ha.

**What is forecasted** Increase of the activity (especially Agricultural Vegetation and Forest Vegetation) for entry of hot air mass towards the NW of the Peninsula. The movement of this east direction (Wednesday-Thursday) could favour a certain instability and ignitions for lightnings.

### Level of activity

Little
  Normal
  Half
  Important
  Criticism
  Great fire





## More important aspects

### 3.1.- The campaign of the fires of cereal fields starts. Fires in the flat zones.

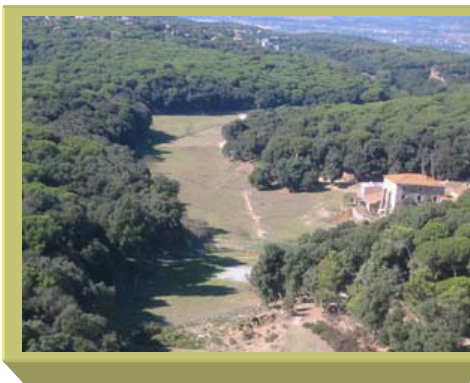
Once again, the campaign of the gathering of the harvest has started, which is concentrated between the last week of May and the first of July, even though the agricultural activity varies depending on the species and the most recent climatology. So, the harvest is most advanced in some zones of the country this year (RELL and Catalunya Central) and it is delayed in others (north of the RET and REG).

The cereal is already dry and the gathering of the harvest has started. During this period, the cereal's field as well as the stubble, propagates the fire with a high rate of spread. So, it is necessary to consider the cereals like a point where the fire speeds up.

However, we have had campaigns with a very low density of cereal. The lack of water during the period of germination, made the fire unable to propagate without the help of an intense wind. This year cereal fields were points to stop fires.

Also we had campaigns with a poor growth of cereals. The cereal crops haven't gathered this year, which mean the fire spreads through the cereal lands during all the summer.

During the harvest, it is easy to have dangerous ignitions originated by the farming implements used. Many ignitions have implied attached forest vegetation. In other zones of the territory, where the agricultural continuity is more extensive, we find that the agricultural fires imply haystacks, isolated kernels, farms, populations.... The world that surrounds the culture of the cereal fields is narrowly related with fire and with our activity of spring - summer.



*Cereal field that sorts out forest zone from the Vallès Occidental*



*Fire in cereal fields and stubbles affecting inhabited kernel. Here the importance of plowing around towns is evident*



*Perimeter of the fire of Osó and Selvanera, 1/7/2003. It affected 1.624 ha of fields.*



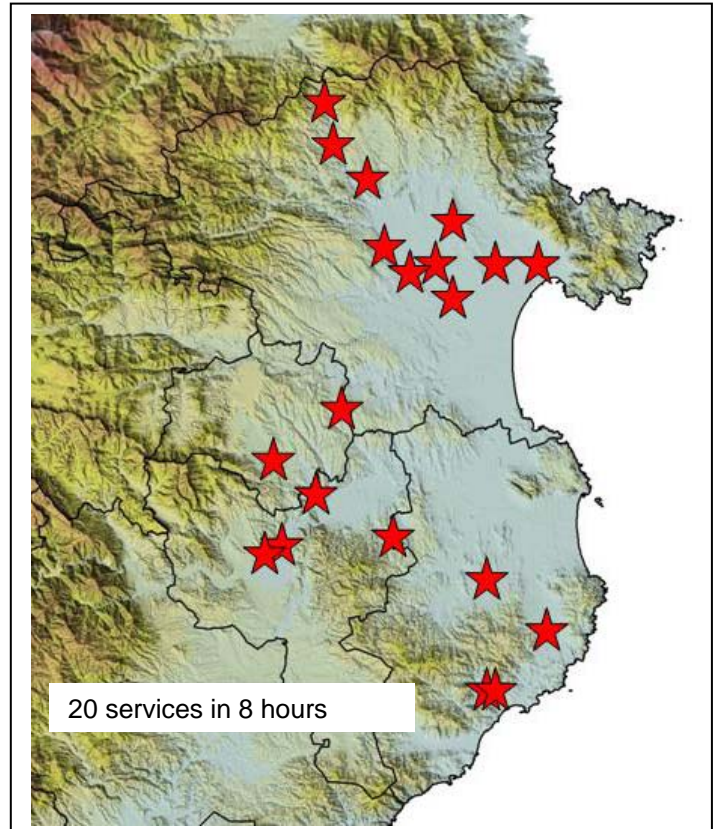
*Fire in cereal fields to the REC, 3/06/2006, Santpedor, with 14 ha in 15 minutes.*



### 3.2.- Simultaneity

On Friday 2<sup>nd</sup> of June there was an episode of simultaneity of vegetation's fires in the Region of Girona that implied a great and constant movement of means along the noon and the afternoon (here there are the hours of the services' notification).

Hour	Name	Area	Type
12:18:33	Peratallada	200 m2	VA
12:36:02	Peralada	25 m2	VA
12:38:54	Castelló d'Empúries	20 m2	VF
12:46:40	Vilamalla	550 m2	VA
12:54:55	Medinyà	160 m2	VU
13:06:49	Cornellà del Terri	100 m2	VA
13:47:49	Pont de Molins	500 m2	VF
13:51:33	Calonge	2 m2	VF
13:53:54	Cornellà del Terri	60 m2	VA
14:24:34	Jonquera	1 m2	VU
14:49:11	Sant Llorenç de les Arenes	<b>1 Ha</b>	VF
14:57:23	Sant Antoni de Calonge	10 m2	VA
15:41:03	Mont-ras	<b>2 Ha</b>	VF
16:22:10	Terradelles	<b>1.1 Ha</b>	VA
16:59:46	Girona	<b>1.5 Ha</b>	VF
18:22:08	Salt	<b>0.5 Ha</b>	VF
19:01:08	Agullana	100 m2	VF
19:34:31	Roses	200 m2	VF
19:40:43	Figueres	200 m2	VF
19:46:35	Palamós	3 m2	VF



The accumulated drought and the period of north wind that affected the northeast of the region, favoured the situation of simultaneity of vegetation's fires in this zone of the country.

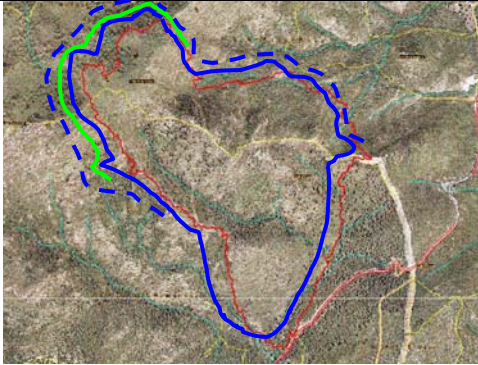

The information of the first fire- fighter arriving to the fire is basic to address the right means to the forest fire, especially in these episodes of simultaneity. This information of the service has to be accurate and descriptive in order to give the most suitable answer to the catastrophe.



### 3.3.- Outstanding fires of the week.



After the period of a north air mass of the last week, that affected the REG with high winds and the rest of regions with dry and clear environment, we started the week with a daily activity similar to a normal summer day. The progressive increase of the temperatures and the low moistures in the inland of Catalonia during the daily time, have been the most remarkable facts of the week.

#### MONTMELL 6/6/2006

	<p><b>EVALUATION</b></p> <p>Topographic fire. Fire of area of high intensity, torching with lengths of flame &gt;10 meters. Few spots and at distances &lt; 20meters.</p>	<p><b>METEO AND OPERATIONS</b></p>
<p>Perimeter of the fire (6/6/2006), 42ha.</p>	<p><b>MEANS OF EXTINGUISHMENT</b></p>	
	<p>19 BRP          6 Commands          2 Amfibis          3 AVAS          1 Hydroplane          5 Bombers          1 Helicopter of command</p>	
	<p><b>Burned area: 42ha</b></p>	



**SANTPEDOR 3/6/2006**

	<p><b>EVALUATION</b></p>	<p><b>METO AND MANEUVERS</b></p>
<p>Perimeter of the fire (3/6/2006), 15ha.</p>	<p>Fire of cereals in a flat terrain, driven south winds, slightly influenced by a storm. The fire crosses a road</p> <ul style="list-style-type: none"> <li>..... farming implements</li> <li>— Line of water</li> <li>..... MAER</li> <li>..... Counterfire</li> <li>..... fire of enlargement</li> <li>..... Manual tools</li> </ul>	
	<p><b>MEANS OF EXTINCTION</b></p> <p>15 BRP        7 Commands        2 Amfibis        2 AVAS        0 Hydroplane        3 Bombers        1 Helicopter of command</p>	
	<p><b>Burned area: 15ha</b></p>	