



Lo Forestalillo

Nº 100 15-06-2007
 Catalan Fire Status Report



Early lightning and cereal fires

Photograph: Aerial view from the helicopter of a lightning fire in Tivenys (04/06/2007).

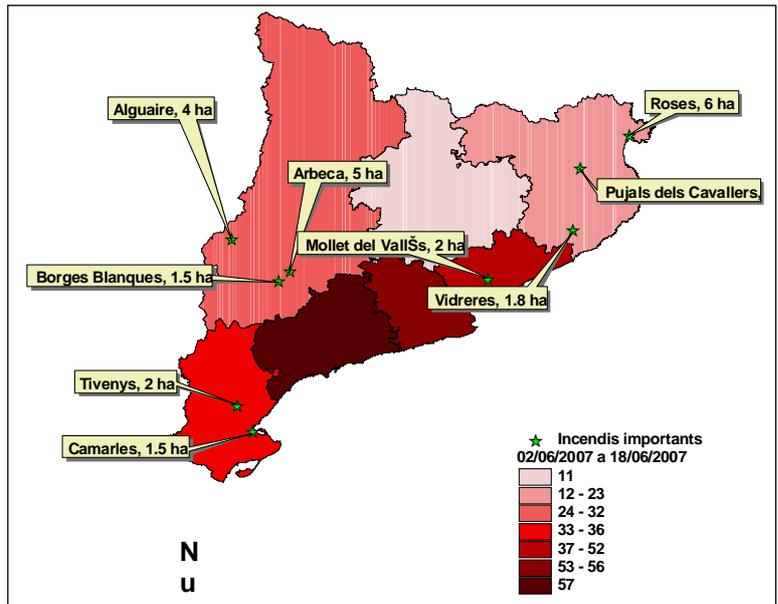
What we had

Compared trend from the beginning of the year until:

	17/06/2006	17/06/2007
Num. of fires (VA+VU+VF) ¹	2366	2267
Area (ha)	1787	259 (*)

¹ VA: AGRICULTURAL VEGETATION
 VU: URBAN VEGETATION
 VF: FOREST VEGETATION

(*) PROVISIONAL AREA WAITING FOR VALIDATION



Number of fires (VA+VU+VF) from 24/04/07 until 07/05/07, larger than 1 ha.

Description of the situation

Drought evolution (live fuels and coarse dead fuels availability)

Due to a wet spring, drought levels are nowadays lower than last year. We are affected by a southerly wave episode, if indirectly; hence relative humidity can easily recover. Activity levels are still low, restricted to short periods of low relative humidity. Several storms mainly affecting the northern half of the country, keep drought to low levels. On the other hand, there are still areas like the southern coastal where rain has not been prominent and thus a future drought period is being drawn.

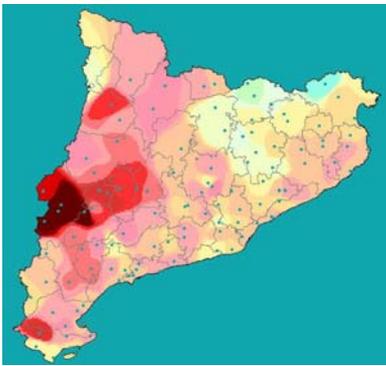


Fig. 3. Accumulated drought (Drought Code Index) of 14/06/06.



Fig. 4. Accumulated drought (Drought Code Index) of 09/06/07.

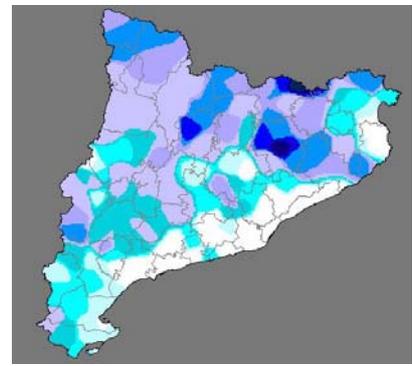
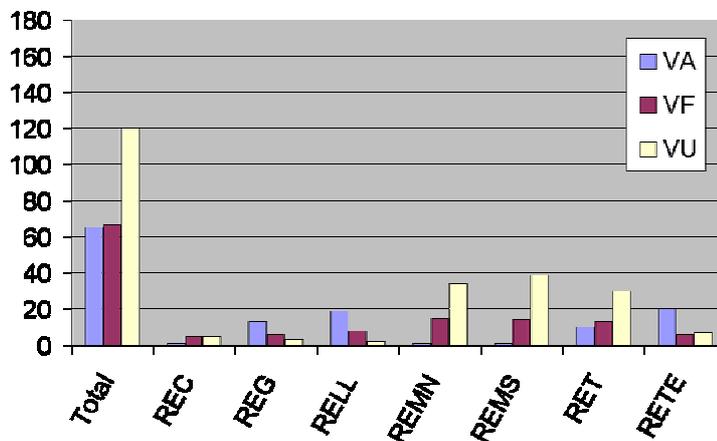


Fig. 5. Accumulated rainfalls (mm) from 01/06/07 to 07/06/07.

Fires services trend (VA, VU and VF)

Services in urban vegetation were concentrated in the metropolitan region and in the region of Tarragona. It is expected an increase of the services in agricultural vegetation during next days due to the cutting of sown fields.

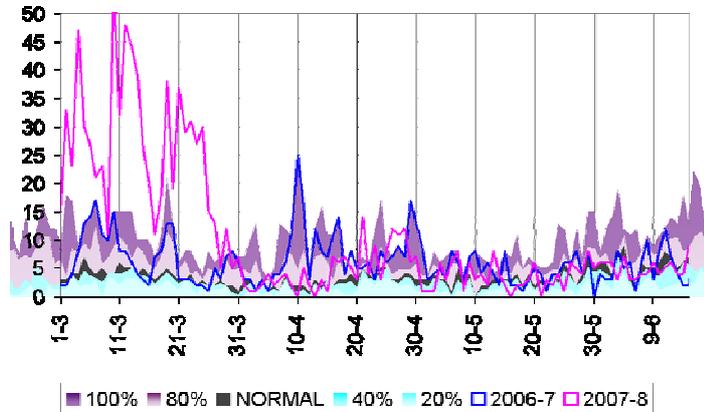
It is shown in the Fire Index MBS13 plot that this early summer is being very quiet in terms of number of services.



Plot 1. Total services and region services according to the type of vegetation involved for the last fortnight from 02/06/07 to 18/06/07.



Plot 2. Fire index Mbs13 (services in forest vegetation) from 01/01/07 until 07/05/07(magenta), compared to last year Mbs13 for the same period in 2006 (blue). Trends over time of number of normal services (grey, 50% percentile), less than normal services (cyan) and maximum services (lilac) for the last 5 years.



By region

REG

There have been small cereal fires. In Pujals de Cavallers 3,5 hectares were burned and in Vilopriu and Banyoles a bit more than 1 hectare. When the fire enters into the forest it gets stopped.

What's forecasted Low levels of activity are foreseen due to the current status of the vegetation. A depression in the west of the Iberian Peninsula may generate southerly and westerly winds.

REMN

Activity is very low; it is only worthwhile to mention the services in urban vegetation. Services in other types of vegetation were almost zero.

What's forecasted Low levels of activity are foreseen due to the current status of the vegetation. A gradual increase of the services in urban vegetation is expected, as well as a progressive increase of the temperatures from next mid-week.

REMS

Activity is very low, it is only worthwhile to mention services in urban vegetation. Services in other types of vegetation were nil.

What's forecasted Low levels of activity are foreseen due to the current status of the vegetation and the lack of high risk periods. A gradual increase of the services in urban vegetation is expected, as well as a progressive increase of the temperatures from mid-week.

REC

There are not important services to mention.

What's forecasted Low levels of activity are foreseen due to the current status of the vegetation. A gradual increase of the services in urban, agricultural and forest (fine fuels) vegetation is expected, as well as a progressive increase of the temperatures from mid-week.

RETE

Level of activity increased in all vegetation services because of northerly winds.

What's forecasted Levels of activity will not be high; we are expecting recurrent risk situations. For the moment, instability episodes and a progressive increase of the temperatures from mid-week have been forecasted.

RET

Considering the other regions, there was a higher level of activity. It was due to the northerly wind episode that has finished during these last days.

What's forecasted Low levels of activity are still expected, as well as recurrent risk situations. For the moment, instability episodes and a progressive increase of the temperatures from mid-week have been forecasted.

RELL

Levels of activity in vegetation services were almost nil due to rainfalls up to this time. Nevertheless, a slight increase of the activity levels appeared during last days. There were some services in cereal fields.

What's forecasted Low levels of activity are forecasted. Services will be associated to dead fine fuels. It is expected that the number of services will increase as cereal fields are cut into stubbles. This agricultural activity will be likely delayed by 15 days (mid-June). A progressive increase of the temperatures has been forecasted from the mid-week.

Activity level

Low Normal Medium High Crítical Large wildfire





Riner, 1st July 2006. Cereal fire.



Water line of the *Juncosa del Montmell* forest fire (06/06/2006).



Important information

3.1.- Main regulations on forest fire prevention

Nowadays there is already a lot of talk about protection borders against fires in the wildland-urban interface. As an example, a recent press release of the authorities of the Environmental Department of Catalonia is attached:

<< At the end of 2007 a 70 percent of the urbanizations in Catalonia will have protection borders, as it is established in Law 5/2003. In this sense, biannual incentives set at 2.800.000 euros have been crucial to provide town and city councils with funding to construct more than 2.200 hectares of protection borders. In Catalonia there are 1.119 urbanizations legally bound by Law 5/2003 on forest fires preventing measures in urbanizations without continuity to urban areas.>>

But there are still other obligations set by different forest fire prevention regulations. They can be consulted at www.mediambient.gencat.net, in *Medi Natural* site, in the section of *Prevenció d' Incendis Forestals* (web site in Catalan)



Photographs: Left: Maçanet, 7th August 2003, Fire in wildland-urban interface. Right: Fogars de Tordera, 10th January 2007, Protection border.

A summary of the main obligations set by the different regulations is collected below:

1. Around roads and high-ways that pass through forested areas, a 1 m safety zone and a 3 m protection zone shall be kept. Those zones shall be executed by the organizations responsible of road maintaining (Safety zone: stripe without shrubs, dead herbs or remains of dead fuels, with pruned trees and without horizontal continuity).
2. Zones around power lines shall be maintained in the conditions fixed in 268/1996, 3rd July decree, where measures concerning periodical and selective cuts in areas around aerial power lines are established.
3. Owners and responsible people of railway installations have the obligation to maintain a 2 m wide stripe from the rails, as a safety zone.



4. Housing developments, residential buildings, activities implying evident forest fire or explosion risk and permanent or temporary public buildings with a capacity above 100 people, placed in forested areas or in places with plenty of fuel, shall have a 25 m safety zone (50 m in those places exposed to wind). The new Technical Code of Edification indicates that apart from that, a 5 m wide perimeter path has to be provided. This path can be included in the safety stripe. The responsible is not clearly specified.
5. A special case of the last point, are the housing developments that are not in touch with the urban interface. Those are obliged to maintain a protective boundary stripe of 25 m minimum. Moreover, non-build-up plots shall have the same treatment as the external stripes and roads, access zones and ditches have to be clean of dry fuel. This work has to be executed either by a management organization or by the owners' committee. Provided that the obliged individuals do not carry out the tasks, the city council (as a subsidiary responsible entity) must do those, and it can turn to a forced procedure of execution.
6. Dumping sites have to be provided with a 10 m safety zone counting from the boundary protection, followed by a 25 m protection zone.
7. Remains of forest exploitations can not be leaved in a 20 m wide stripe around roads.

Occasionally, fire-fighters have to protect buildings that don't comply with the obligations above indicated. This causes an unsafe placement for stuff and mortgages the number of fire-fighting resources to be assigned.

To maintain a low fuel load has a double benefit. The former, the fire shall have lower intensities and shall be easier to control. The later, housing developments will act as anchor areas from which attack manoeuvres can be carried out.

3.2.-Final distribution of assistant foresters and aircrafts for 2007 summer season

As each summer, extra staff has been contracted for the forest season among which there are assistant foresters (1078), lookouts (160) and some other support staff (99), that accounts for a total of 1337 people. Regarding assistant foresters, the territorial distribution can be observed in the following figure:



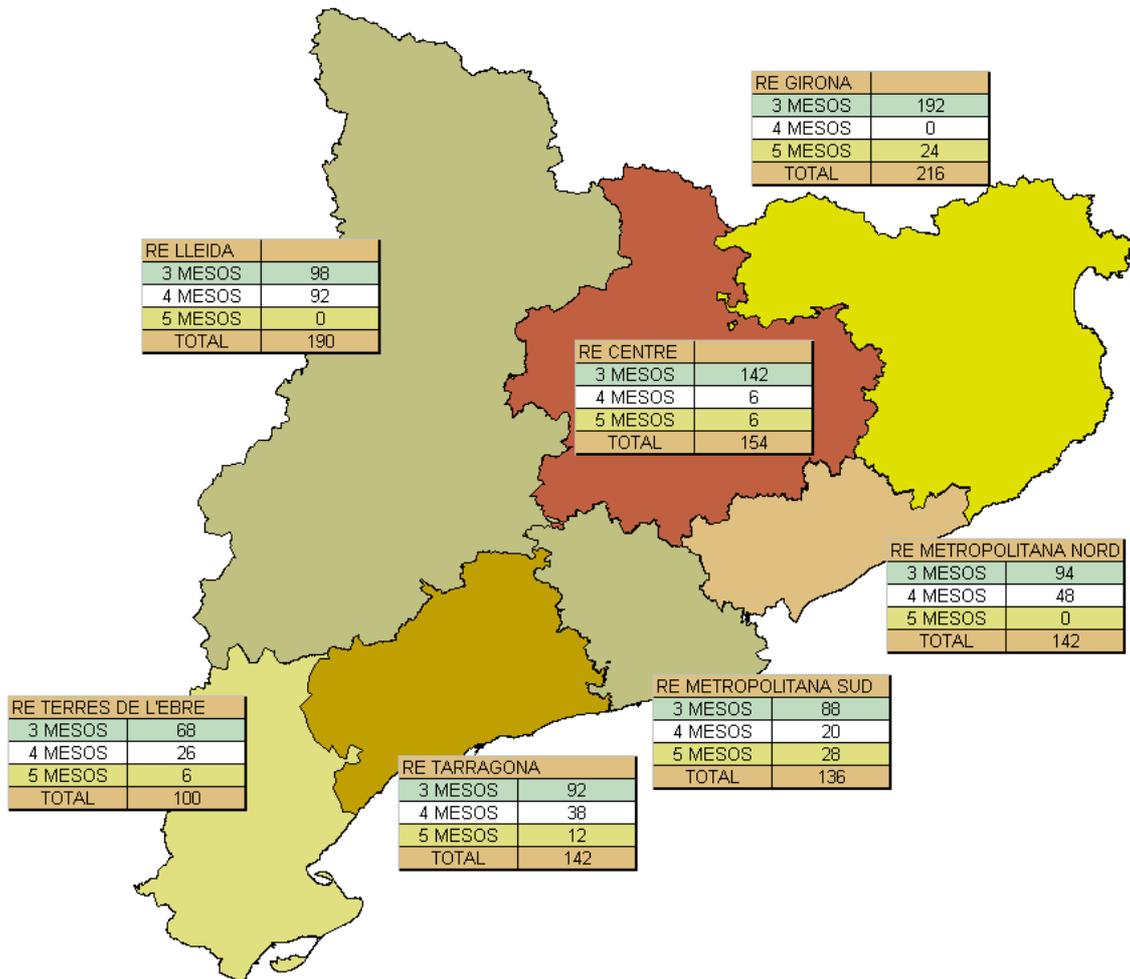
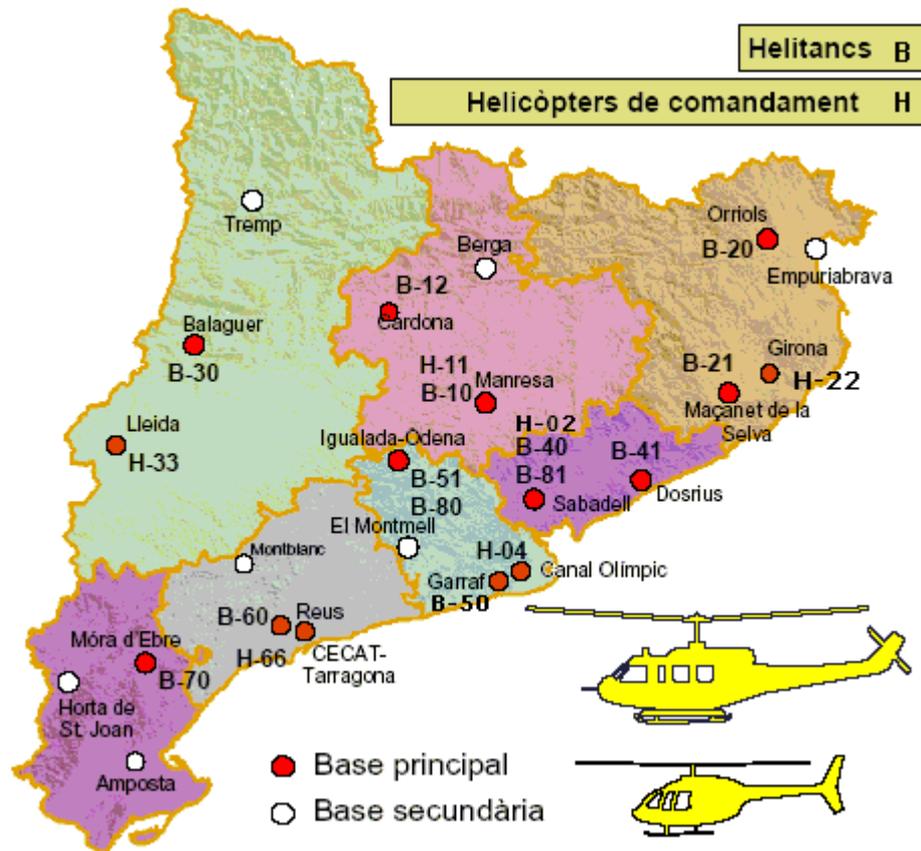


Fig. 6. Distribution of the assistant foresters by regions.

The total number of aircrafts for this season is the highest since the creation of the Catalan Fire Brigades. With all the aircrafts a 61200 l of extinction capacity can be assured. As in other campaigns, there are different types of aircrafts suitable for different types of fire. They can be grouped as follows: survey and attack seaplanes (3200 l), seaplanes (5599 l), survey and attack aircrafts (3200 l) helitanks (1200 and 1500 l) and command helicopters (400 l). 2 rescue helicopters and 5 multipurpose helicopters can be eventually provided.



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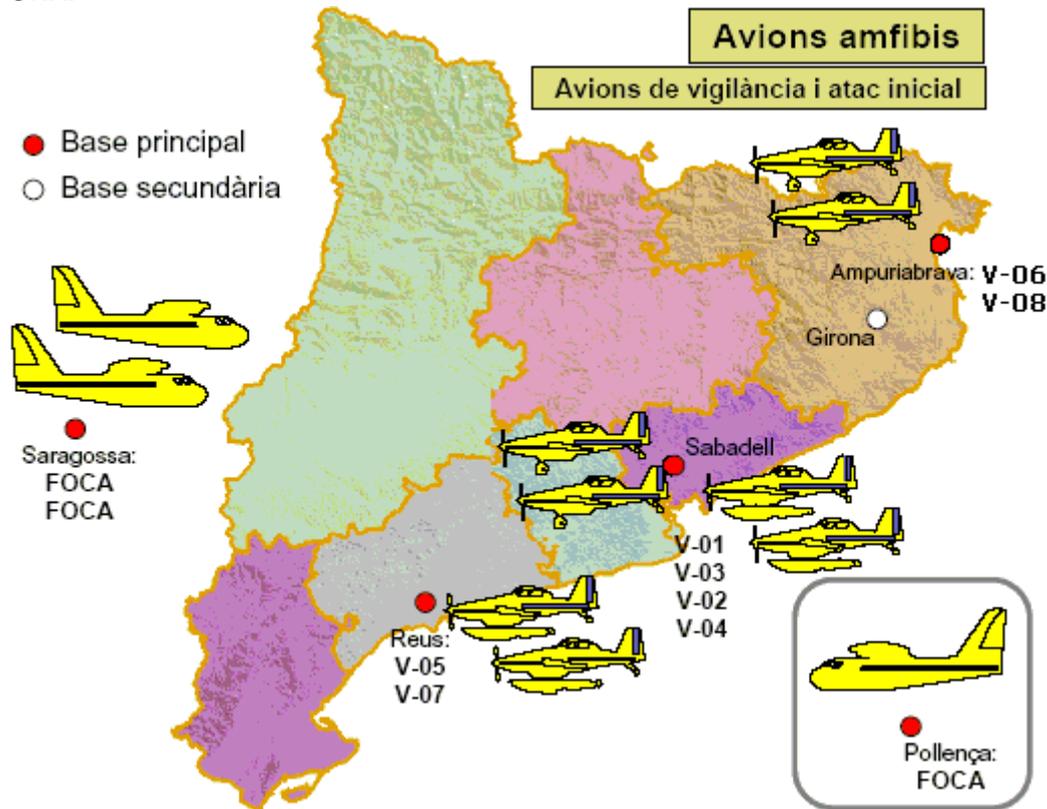
A fraction of the total number of available aircrafts has to be shared between Catalonia and neighbouring communities. These aircrafts belong to the General Office of Biodiversity (Environmental Department):

Aircrafts placed in Catalonia:

- 2 land loading aircrafts Air Tractor 802 F and AVA at Reus and Empuriabrava airports.
- 2 land and water loading seaplanes Air Tractor 802 FB at Reus and Empuriabrava airports.

Aircrafts placed in communities close to Catalonia that consider Catalan territory as a preferential zone:

- 2 land and water loading aircrafts Air Tractor 802 FB at Manises (València) airport.
- 1 helicopter Kamov 32A at Montflorite (Osca, Aragón).
- 1 land loading aircraft Air Tractor 802 F at Son Bonet (Balear Islands)
- 2 Canadair CL-215 T at the military base of Saragossa (Aragón).
- 1 Canadair CL-215 T at the military hydro-base of Pollença harbour (Balear Islands)
- 1 BRIF-A at Daroca (Aragón). SuperPuma helicopter with a 2500 l suspended tank. 16 people among technical and specialized staff apart from flight crew.
- 1 coordination and survey aircraft (ACO) at Manises (València) airport.



3.3.- Energy exploitation of forest biomass

Within the framework of the compromises acquired by Kyoto protocol for counteracting the climatic change, to multiply by 4 the use of sustainable energy resources is considered as a milestone in Catalonia, as indicated in the current energy plan for Catalonia (2003-2015). The global biomass share foreseen for 2015 is around 10.4%, still far from eolian or solar energy production.

Agricultural residues are the most important source of biomass energy production. However, residues from forest management and exploitation have also a great potential.

Incomes obtained from electricity generation and residual heating, should cover the expenses of biomass extraction and transport, as well as the costs of installations and exploitation of these.

The situation is still unbalanced in most of the cases, due to the high costs of forest extraction and due to the bonus in terms of electricity generation received by sustainable energies. Thus, incentives for developing the use of forest biomass are more than justified, because of the evident externalities that produce in terms of forest conservation, social purposes and protection against forest fires, among others.

Nowadays, the increase of abandoned forests causes also an increase in emergency costs, related to uncontrolled vegetation fires, thus, we shouldn't let pass by any of the chances that we have to either delay or eventually invert this trend.



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Photograph: ASEMFO. Forest exploitation



Photograph: ASEMFO. Heating Industrial exploitation

3.4.- The best photos of the first 100 issues of "Lo Forestalillo"



Forestalillo 4, Generation changes of land Resources (*Flix* fire).



Forestalillo 54, Cereal burning carried out in Lleida Region, using quads so that large extensions can be covered (20/09/04).



Forestalillo 64, *Margalef* Fire (26/05/05). Intense fire behaviour and risky positions of the crew, gave as a result 2 light vehicles burned and an injured fire-fighter with burns in the neck and in the arms



Forestalillo 65, *Pont de Vilomara and Rocafort* fire (19/06/05), high intensity fire.



 <p>Forestalillo 67, <i>Castellbisbal</i> fire, affecting the wildland-urban interface area (05/07/05).</p>	 <p>Forestalillo 68, fire whirl generated at the front of the <i>Cadona</i> fire 08/07/05.</p>
 <p>Forestalillo 68, pirocumulus generated at the <i>Cardona</i> fire, 08/07/05.</p>	 <p>Forestalillo 74, backfire at Ribaroja d'Ebre, 22/08/05</p>
 <p>Forestalillo 74, AT-802 FB loading at Riba-Roja reservoir, 22/08/05.</p>	 <p>Forestalillo 80, branches pointing at the main front at <i>Castellnou del Bages</i> fire 18/07/05.</p>
 <p>Forestalillo 87, image of the backfire carried out at <i>Ogern</i> fire, 11/07/06.</p>	 <p>Forestalillo 88, tractor used in <i>Pólig</i> fire 15/07/2006.</p>



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Forestalillo 91, french tracks working at *Campmany* fire, 06/08/06.



Forestalillo 92, crew ready to fire-fighting. Fire-fighters with locals in Galicia.



Forestalillo 96, water point prepared during the winter season as a safety zone.