



Annual Report 2006

Barcelona Fire Brigade

Fire-prevention, Fighting and Rescue Service

Introduction

This annual report contains a description of a whole number of critical situations within its pages, each one efficiently resolved by the Barcelona Fire Brigade corps. We must be aware of the human factor behind all the numbers and figures, the distress of individuals who have suffered serious fright or calamity. What I mean is that the Fire Brigade is one of the services that most directly touch the human soul, the extreme experience. Year after year, according to the public opinion polls, it turns out to be one of the most valued services in the city. This says a lot for the professionalism and vocational integrity of the people who staff it.

Actually, the Barcelona Fire Brigade corps is called the “Fire-Prevention, Fighting and Rescue Service.” I emphasise the word “Prevention”, because it is precisely there that we need to invest more and concentrate our efforts, in the firmly-held belief that wide-spread preventive education will guarantee quality of life. In this sense, the consolidation of the Fire-Prevention Forum, which brings together companies, bodies, personalities and associations making up our civic fabric, is a remarkable success, as it is through its participation and involvement that the best results are achieved.

Unfortunately, prevention is no panacea, and we still need to have rapid responses for emergencies. The establishment in 2006 of the new Emergency Management Centre is a step forward in this direction, since fire-fighters and the various police corps may now share their technology, information and responses thanks to their integration into a single network. In the same way, the integration of the municipal Civil Protection squad into the Prevention Division of the Fire Brigade - an integration that is already fully operational - is yet another example of this growing phenomenon.

Therefore, it gives me great pleasure to welcome the 45 new fire-fighters who have made their “debut” with us this year. They join a body that citizens recognise as professional, efficient, modern and motivated. We shall do our utmost in the City Council to improve the service's staff and technology, safe in the knowledge that our human capital shall continue to be, as it is today, exemplary.

Jordi Hereu, Mayor of Barcelona

The Safety and Mobility Management Model of the Sector

This section, through the Department of Economic Management and Resource Control Services of the Safety and Mobility Sector incorporates, among others, the security, emergency and rescue forces of the Guardia Urbana and the Fire Service respectively. The personnel in this sector account for almost 50% of the municipal work force. The personnel attached to the Guardia Urbana make up almost 75% of the staff.

Human resources attached to the Safety and Mobility Sector (information as of the 31st of December 2006)

Place of attachment by division	Number	%
Council and Management	10	0.29 %
Crime Prevention Department	4	0.11 %
Department of External Relations and Quality	9	0.26 %
Department of Mobility	42	1.21 %
Department of Financial Management and Control of Resources	47	1.35 %
Guardia Urbana	2,614	74.85 %
Crime Prevention, Fire and Rescue Services	763	21.93 %
Total	3,489	100%

Budget of the sector

Safety and Mobility Financial Resources 2006

	Initial budget
Expense budget	
Personnel costs	149,635,468.33
Expenditure on common assets	20,275,560.00
Common transfers	2,115,794.00
Real investments	8,014,000.00
Total sector budget	180,040,822.33
Credit modifications	8,518,541.18
Definitive credit	188,559,363.51

During the financial year of 2006 we supervised a budget which was 4.73% larger than that initially approved for the Safety and Mobility Sector, as a consequence of certain gains which were greater than those projected in the initial budget.

Management model

To guarantee the normal evolution of the functions assigned to the sector in terms of crime prevention, security and civic duties, emergencies and mobility in Barcelona, as well as achieving the objectives set out in the Municipal Action Plan, efficient management of the municipal resources assigned is necessary.

The expenditure generated covered a wide range of activities within the principle objectives of the Sector, such as, for example:

- Modernization of the material resources and technology for the end services
- Improvements to computer and communications equipment
- Expansion of the work force and rejuvenation of the personnel
- Modernization and expansion of the road fleet of the Guardia Urbana and Fire service
- Applications of technical measures for traffic management
- Rationalization of stopping and ordinance for goods distribution
- Promotion of sustainable mobility and the alternative transport methods for private vehicles
- Reduction of accidents and detection of hazardous conditions
- Incentivization for participation and reflection (Mobility Pact)
- Organizational Reforms which affect structures and people
- Training reinforcement to respond to residents needs.
- Application of civic ordinance

- Tracking and development of crime-prevention programs
- Better attention to residents concerns over the Internet
- Promotion of Information and Awareness campaigns

The organizational chart and the management model adopted for efficient and coordinated management of all of the resources within the sector has meant concentrating all of the technical structure (Budget management, contracting, human resources, infrastructure and logistics) into a single department: Department of Financial Services and Resource Control which reports directly to the Management of the sector.

The city, an intervention scenario

This annual report summarises the activities performed by Barcelona City Council's Fire-Prevention, Fighting and Rescue Service (known locally by its initials in Spanish/Catalan as "SPEIS") during the year 2006. It deals with all aspects of performance, both internal and external.

The Barcelona Fire Brigade, which is tasked with fire prevention and ensuring the safety of citizens and their property, has been developing its activities within the intervention scenario of our municipality. Its equipment, vehicles and professional training are all adapted to Barcelona's specific features.

In general, the defining points in our intervention scenario are as follows:

- Barcelona is a city with an area of 100.4 km² and some 1,629,537 people, facts which presuppose a high population density (16,230 residents per km²) and a large number of residences (757,928),

- We live in a small area bounded by a coastal front with 4,240 linear metres of beach and an active commercial port with a perimeter of 20.5 km,
- The municipality has an area of green forest covering some 1,795 hectares.

As for its economic activity, the city enjoys a thriving, constantly-developing service sector (commerce, transport, finances, education, health, etc.) and boasts more than 12,600 premises and offices, including restaurants, bars, hotels, cinemas, theatres, etc.

The Barcelona Fire Brigade has been looking after the safety of citizens with a team of 763 men and women, assigned to 6 stations, working alongside a temporary crew located at Vallvidrera. Activities are divided up into three action zones.

Last year we recruited forty-five new fire-fighters and promoted eighteen new corporals. The Barcelona Fire Brigade also acquired new vehicles and rescue equipment, thus increasing the efficiency and safety of our emergency-service responses.

Barcelona has 4.68 fire-fighters per 10,000 inhabitants and 7.60 fire-fighters per km².

The Fire Brigade carried out 15,758 emergency-service responses in 2006. Response units arrived at intervention sites (fires and emergency rescues) in under 10 minutes, in 95.06% of cases, and in under 5 minutes, in 67.91% of cases. 1,201 preventive measures were adopted in such places as the city's beaches, the Collserola Park and the Port.

On the subject of prevention, 629 inspections were carried out, including the initial 407 supervised controls at the Environmental Committee; 4,069 prevention consultations and 58 advisory emergency plans. These were

followed up with educational talks on prevention given at schools, neighbourhood associations and old-age nursing homes, etc.

Apart from that, there had been a significant consolidation and development of the *Fire-Prevention Forum*, a participation tool for various bodies, companies, associations and collectives acting in conjunction with the Barcelona Fire

Brigade to raise the level of fire-safety for all of Barcelona's citizens.

In addition, the Barcelona Fire Brigade has worked with various NGOs and bodies to provide humanitarian aid. It has participated in various sporting events, including the Fire-Brigade World Games in Hong Kong and the "*VIII Barcelona Fire-Brigade Race*".

City data

Linear metres of beach	4,240 m
Port perimeter	20,500 m
Green forest	20,500 hectares
Manufacturing industries	13,342
Commercial premises	50,974
Restaurants, bars and hotels	12,496
Cinemas and theatres	253
Clubs and discotheques	149
Total number of buildings	86,744
Residential buildings	75,932
Buildings intended for other uses	10,812
Residential properties	757,928

(Sources: Annual Statistics for the City of Barcelona 2006)

Basic data in figures

6 fire-stations and a temporary crew based at Vallvidrera
15,758 emergency-service responses
763 fire-fighting staff members
4.68 fire-fighters per 10,000 population
7.60 fire-fighters per km ²

Emergency-response services per district

District	Population	km ²	Population/km ²	Services*
Ciutat Vella	118,967	4.41	26,977	1,869
Eixample	269,264	7.46	36,094	3,055
Sants-Montjuïc	182,771	21.35	8,561	1,959
Les Corts	83,472	6.01	13,866	706
Sarrià-Sant Gervasi	143,545	20.09	7,145	1,772
Gràcia	122,423	4.18	29,218	968
Horta-Guinardó	170,138	11.95	14,226	1,135
Nou Barris	168,069	8.04	20,907	1,156
Sant Andreu	144,896	6.56	22,088	1,021
Sant Martí	225,992	10.32	21,898	2,080
Barcelona	1,629,537	100.40	16,230	15,721
Services outside the immediate Barcelona Municipality				37
Total number of services				15,758

*Number of fire-fighting responses per district for 2006

Performance per station: number of emergency responses and day/night distribution

Station	Total n°	% of the total	Day	% of the station	Night	% of the station
Eixample	6,949	37.52	4,221	60.74	2,728	39.26
Sant Andreu	3,207	17.31	1,946	60.68	1,261	39.32
Drassanes	1,759	9.50	1,034	58.78	725	41.22
Llevant	3,385	18.28	1,990	58.79	1,395	41.21
Zona Franca	1,074	5.80	677	63.04	397	36.96
Vallvidrera	309	1.67	291	94.17	18	5.83
Vall d'Hebron	1,839	9.93	1,117	60.74	722	39.26
Total number of emergency responses	18,522	100	11,276	-	7,246	-

*A service may provide emergency responses from different stations

Summary of activities for 2006

Emergency responses : 15758

Types	Number
Fires and explosions	3,725
Rescues (including 2,421 dealing with medical support)	4,217
Technical support	3,700
Operational prevention*	1,201
False alarms	2,915

*Inspections, practices, etc.

Prevention services: 6,589

Types	Number
Technical consultations	4,069
Work projects and activity reports	1,833
Prevention inspections	629
Emergency plans consulted	58
School visits	104
Student visits	4,164

Training

Types	Number
Persons attending internal training courses	965
Total number of hours spent by persons attending internal training courses	41,968
Persons attending external training courses	1,297
Total number of hours spent by persons attending external training courses	5,836
Number of persons attending open classes	1,921

Civil Protection and Prevention Division

Civil Protection

2006 was a year of consolidation in the work tasks and lines established for the municipal civil protection division, since it came to report to SPEIS. The Fire Brigade had the challenge of re-elaborating and updating the emergency-response plans for the city and introducing them in such a way as to conform to the dynamics of the municipality.

The line followed in preparing these documents was clear, as were the steps to be taken in the event that a plan required activation. The plans had to be easy to follow in an emergency and clearly presented. Moreover, they had to be acceptable to whoever carried them out. They had to be easy to update and, of course, they had to conform to the *Civil Protection Commission of Catalonia*. The educational services we provided together with the feedback we received showed the plans were a success.

On the matter of hazards, clear priority was given to consolidating plans that came from the CCAA: these had to be carried out by law before any consideration could be given to investigating any other risks. In this regard, both the harmonisation and the revision of the forest-fire action-plan review may be described as completed, and the same can be said of the flood action plan. The process was lengthy and tough but, by the same token, ultimately worthwhile: various stages were followed through with different groups and all this achieved good results in the end.

Plans

Carrying out new plans

Towards the end of 2006, the following set of plans were devised, practically avoiding all the internal, municipal formalities of review and approval

- Action plan for accidents involving dangerous substances
- Review of action plan for accidents in dangerous-chemical companies
- Action plan against snow - ice
- Action plan for accidents in motorway tunnels
- Action plan for health risks.
- Action plan for accidental contamination of marine waters: this is still being prepared.

On the subject of introduction and implementation, it is worth considering that these plans underwent a substantial change in their management in 2006. SPEIS and its director worked together with the mayor in most of their management. In other words, in addition to taking charge of their preparation, they were also responsible for managing them during emergencies (operations and action processes). Such duties, to be carried out 24 hours a day and 365 days a year, became the responsibility of SPEIS's director. The corresponding plan would then be activated through the established hierarchical structure, which would rely on the Emergency Management Centre's indispensable support. During 2006, this situation encouraged the training of staff working on planned responses to major emergencies. However, this was merely the start to a long process aiming at incorporating such tasks into the normal processes of the Fire Brigade Service.

The Emergency Management Centre and, in general, the Joint Headquarters are where the great majority of plans are now managed. In 2006 an information unit was added (mapmaking, plans, records, etc.) which is to expand with time. We were consequently compelled to develop a Geographical Information System capable of organising information which we could store in a single application.

Work committees and groups

- Participation in Barcelona City Council's Environment Committee for compliance with

the criteria stipulated by the Environmental Administration's Municipal Bylaw on Integrated Activities and Intervention (known locally by its Spanish/Catalan initials as "OMAIIA"), from the point of view of civil protection.

- Participation in the Civil Protection Commission of Catalonia and in the following specific work groups:
 - Work group number 2: Drafting the new PROCICAT plan.
 - Work group number 4: Safety research to combat motor- and railway tunnel fires.
 - Work group number 5: updating INFOCAT on forest fires.
 - Work group number 6: full review of INUNCAT on floods.
 - Work group number 11: developing CAMCAT on marine-water contamination.
 - Work group number 12: monitoring NEUCAT on snowstorms.
- Participating in the Mixed Committee set up by the Barcelona Port Authority and Barcelona City Council for following up the Cooperation Agreement.
- Participating in the work group on preventive measures for festival fire-work displays.

Preventive and operational phase on potentially-hazardous actions in the city

- The 2006 Red Bull Air Race.
- The 2006 April Fair.
- F.C. Barcelona's European Title and League Cup celebrations
- "Espai Fòrum" activities (Barcelona Sound, Circs, Tents, etc).
- The Mercè festivals (Pl.Catalunya, Zona Fòrum, Fireworks & Music Displays, etc).
- Cavalcada de Reis (procession of the three wise men).
- Major activities involving firework displays
- Other activities : Carnival, District festivals, etc.

Simulations and drills

- Simulated forest fire affecting city areas (Jul 2006)
- Participation in a simulated road accident involving dangerous goods, activating the special TRANSCAT plan (December 2006)
- Participation in simulated accidents in dangerous-chemical factories and companies located within the city (ENAGAS, QUIMIDROGA, COGNIS, etc.).
- Participation in specific simulations of interest such as MORROT, Ships, etc.
- Participation in simulated incidents in certain buildings located within the city.

Implementing the Environmental Administration's Municipal Bylaw on Integrated Activities and Intervention (OMAIIA)

Compliance with the safety criteria of high-risk factories through quantitative risk-analysis audits done, in some cases, with the Polytechnic University of Catalonia's Centre for Research in Technological Risks (SIDASA and ECOIMSA).

Other activities

Pursuant to the Royal Decree 123/2005, in 2006 part of the passive-protection plans were managed for districts located within the forest and lacking continuity with the city network. Basically, 25-metre protective buffer zones were established and the municipal territory surrounding them was cleaned.

Cooperation took place in the drafting and authorisation management of the self-protection plans for districts lacking continuity with the city network. These districts include Peu del Funicular, Can Caralleu, Vallparc i Torre Baró.

Apart from that, there was also participation with factories and companies over a variety of hazards; floods, forest fires, snow-ice, bonfires and firework displays.

Prevention

Regulated prevention

The activities of the Civil Protection and Prevention Division on the matter of regulated prevention were developed along three work lines:

- Verifying and reviewing records sent to Fire-fighters.
- Supervising records passed on to the Municipal Environmental Committee
- Providing consultations by telephone and attending to technical visits.

In all cases, the work carried out was aimed at improving the level of fire protection in our city's buildings and work premises.

30% more records were provided in 2006 than in the previous year.

As predicted, project review activities and inspections were maintained at the previous year's levels, with a slight tendency to drop below them. This will become clearer in the coming years.

On the other hand, 830 records were reviewed in the Environmental Committee in 2006. This brought about the need for a corresponding technical monitoring of fire-fighters that would confirm compliance with the fire-protection safety measures regulated by current rules. Nevertheless, as for the initial controls carried out by environmental monitoring organisations (EACs), 407 records were supervised. These figures represent a 100% increase in the activity compared to the previous year.

As for the technical support services, SPEIS's level of consultations and visits remained constant.

Rules and regulations

The Technical Building Code was published in 2006 in the light of the fire-protection regulations. This code enabled most European Union member states to apply their rules and regulations according to harmonised standards.

The upshot of all this has meant that the Fire-protection Bylaw needs to be amended and adapted to the CTESI. The new bylaw is in the process of receiving plenary approval. It will supplement the above-mentioned Technical Code, as well as provide the city with fuller and more suitable rules and regulations.

The Fire-Safety Rules Interpretation Board (known locally as "TINSCI") - which includes the professional Colleges of Architecture and Engineering and the respective Fire Brigade Services of Barcelona City Council and the Autonomous Government of Catalonia - continued its work throughout the year to harmonise all criteria concerning the application of the fire-protection rules. Furthermore, despite the complexity of the rules and regulations, a solution was ultimately found for every problem encountered.

Fire-prevention Forum

On 21 December 2005 the *Fire-Prevention Forum* was founded. The forum was set up as a participatory and action-proposal body. Its objective was to promote awareness of fire-preventive measures in the framework of residential, leisure, commercial and industrial settings etc., among citizens and the various fire-prevention workers.

The Forum consists of thirty entities that have each undertaken to work towards providing Barcelona with better fire protection.

3 committees were created in 2006 to work on various projects:

- The Regulations and Technological Quality Committee
- The Public Premises Committee
- The Users' Committee.

The Regulations and Technological Quality Committee ran 4 training courses at the professional Colleges of Architecture and Engineering. These dealt with the fire-protection rules and lasted for 16 hours.

The Public Premises Committee ran 2 training sessions for discotheque organisers and hotel managers.

The Users' Committee brought out two animated sets of DVDs. One set offered fire-preventive advice while the other dealt with self-protective measures in the event of fire.

That same committee also signed a cooperative agreement with Barcelona TV (BTV) whereby the

latter would provide educational information on fire-preventive and self-protecting measures. A total of 17 TV programmes ended up being broadcast on Thursday evenings.

The Barcelona Fire Brigade visited 14 different schools to provide educational, fire-prevention school programmes. Conversely, 104 school-trips were made to the Fire Brigade to receive the benefits of this programme.

6,589 Preventive Services

Consultations		4,069
Arranged visits	1,018	
Consultations by telephone	3,051	
Work-project, activity and event reports		1,833
Mandatory project and consultation reports	1,003	
Projects reviewed in the Environmental Committee	830	
Prevention inspections		629
Night-time inspections of public premises	49	
Initial controls supervised in the Environmental Committee	407	
Inspections of fire-work display projects	122	
Other inspections	51	
Educational preventive talks		
Number of schools that visited us	104	
Number of students who visited us	4,164	
Number of schools we visited	14	
Emergency plans consulted		58

Operations Division

Taking on new staff at the Barcelona Fire Brigade has led to generational changes and these bring new challenges, especially when it comes to maintaining the high-level of quality of our Service's emergency responses. When we recruit fire-fighters, we aim for a balance between young and experienced, to guarantee the high level of quality and safety in the rescue work we provide, for citizen and fire-fighter alike.

Our organisation continues to prove itself capable of adapting to change. The 1992 urban development of Barcelona, the urbanisation of Diagonal Mar and the extension of the Port Area put this capability to the test. Now, the change is different. We no longer refer to intervention scenarios, but rather, to people. The new recruitment of staff will be a relief for fire-fighters with over 25 years of service to this city. We intend to achieve our aim of guaranteeing maintenance of our emergency responses' safety and quality gauges. We shall continue to

respect the team's traditional working methods but we shall also adopt new procedures and materials to consolidate our emergency Service.

The new Emergency Management Centre has become a reality. Integrated into an area sharing space with the respective Management Centres of the Guardia Urbana (national police force), the Mossos d'Esquadra (the autonomous government's police force) and the Fire Brigade, this change is the logical development - moving on from call-reception centre to authentic Emergency Management Centre. We have great potential for receiving information and there are thousands of resource-management tools at the disposal of our Service. On the other hand, the inclusion of the Civil Protection Service into the Fire Brigade structure has expedited the activation process for various Municipal Emergency Action Plans.

Facts such as those stated above are mere stages in the changes leading us towards a new

network of stations providing a more rational distribution of resources within the city. The construction of the new Port Station will improve the current coverage of the Drassanes station and provide the necessary autonomy for managing operational resources for the area. The latest improvements to the Eixample Station will complete the new network's design.

It is important that the city's new Fire Fighters should appreciate the city changes seen over time by their senior colleagues at Municipal Fire Brigade. Fire fighters have always adapted to changing realities. For this reason, we must realise that we are part of a complex organisation of municipal services and that these are necessary if we wish to achieve the city project planned by the people for the people. It is only by working together in a team that all of us in the Barcelona Fire Brigade will be able to guarantee the continuity of what, up to now, has been our Service.

First emergency-response model

Types	Vehicles	Duty Chief	Officer	Health Expert	Sergeant	Corporal	Fire fighter	Driver
FIRE								
Total: 16 people	Light tank		1			1	3	1
	Heavy tank				1		3	1
	Heavy ladder truck						1	1
	Ambulance			1			1	1
FOREST FIRE								
Total: 9 people	Heavy tank				1		3	1
	Land rover					1	2	1
TRAFFIC ACCIDENT								
Total: 13 people	Light tank		1			1	3	1
	Rescue					1	2	1
	Ambulance			1			1	1
RESCUE								
Total: 7 people	Rescue					1	2	1
	Ambulance			1			1	1
EMERGENCY-RESPONSE SUPPORT VEHICLES								
Total: 15 people	Command	1						1
	Crane					1		2
	Air						1	1
	Foam						1	1
	Underwater equipment					1	2	1
	Shoring						1	1

Emergency interventions: fires or explosions

We carried out 3,725 emergency interventions against fire or explosions in 2006. This represents 23.64 % of the total number of services provided (1.85 % below that of 2005). In absolute terms, we performed 293 fewer services against fire or explosion than we did for the previous year. Of the total number of these interventions, 6 took place outside the municipality.

Of the 3,725 interventions, 1,924 originated from public thoroughfares. This figure is below that of 2005, i.e. 2,078. We put out 1,531 building fires, 1,020 of which had started in residential premises. These represent 41.19 % of the fire-fighting interventions (a slightly higher percentage than the 40.37 % recorded for 2005.)

The Fire Brigade intervened to put out 66 forest fires in 2006, compared to 118 for 2005. This type of intervention represented 2,94 % of the fire services, showing an increase of 1.17% compared to 2005.

An analysis of the fire services, broken down along the days of the week, gives us the following information: Mondays have the least activity (13.56%), whereas Saturdays (16.32%) and Fridays (14.71%) have the most.

The day-night distribution of fire services provide the following values: 43.81 % of fire services are carried out during the day, whereas 56.19% take place at night (from 8 pm to 8 am).

For 95.62% of the fire-service responses, we reached the emergency site in under 10 minutes compared to 95.47% for 2005. The result complies with our commitment to the service charter, which stipulates that response units must arrive in under 10 minutes for at least 90 % of cases. In addition, for 69.96% of the fire-

service responses, units arrived in under 5 minutes (67.37% in 2005).

For 2006, the average arrival time of a response unit to an emergency site (fire/explosions and emergency rescues) was 4 minutes and 39 seconds, compared to 4 minutes and 48 seconds for 2005.

Number of fires according to time of day

Time band	N° Services
from 12 am to 4 am	835
from 4 am to 8 am	483
from 8 am to 12 pm	360
from 12 pm to 4 pm	608
from 4 pm to 8 pm	664
from 8 pm to 12 am	775
Total for 2006	3,725

Arrival times to fire site

Arrival times	No. of Services	Accumulated	Accumulated percentage
from 0 to 5 minutes	2,606	2,606	69.96
from 5 to 10 minutes	956	3,562	95.62
more than 10 minutes	163		
Total for 2006	3,725		

Time taken to extinguish fire

Extinguishing times	No. of Services	Accumulated	Accumulated percentage
from 0 to 15 minutes	443	443	11.89
from 15 to 30 minutes	1,765	2,208	59.27
from 30 to 60 minutes	1,183	3,391	91.03
more than 60 minutes	334		
Total for 2006	3,725		

Places where fire broke out

Place	Subtotal		Total	
	Number	Percentage	Number	Percentage
Buildings			1,531	41.19
private residence	1,020	27.38		
public residence	23	0.62		
offices	57	1.56		
for educational use	19	0.51		
factories and warehouses	76	2.04		
bars, restaurants and meeting places	116	3.11		
commercial buildings	139	3.74		
garages and car parks	40	1.07		
in construction	34	0.94		
medical	7	0.22		
Miscellaneous			1,960	52.54
rubbish	1,141	30.60		
vehicles	414	11.11		
others	405	10.83		
Otros			234	6.27
building sites	157	4.21		
forest areas	66	1.77		
beaches and rivers	11	0.29		

Number of services against fire or explosions per district*

District	No. of services	Percentage
Ciutat Vella	360	9,66
Eixample	793	21,29
Sants-Montjuïc	467	12,55
Les Corts	170	4,57
Sarrià-Sant Gervasi	251	6,74
Gràcia	205	5,51
Horta-Guinardó	288	7,73
Nou Barris	329	8,83
Sant Andreu	317	8,51
Sant Martí	539	14,46
Barcelona	3,719	

*Not counting the 6 emergency interventions outside the municipality

Emergency intervention services: rescues

In 2006, the Fire Brigade Service carried out 4,217 rescue-service interventions, a figure representing 26.76% of the total number of emergency responses. Of these, 4 were performed outside the immediate municipality. In 2005, 4,633 rescue-service interventions were carried out, representing 28.92% of the emergency responses for that period. It should be noted that there was a slight reduction in absolute terms in the number of services and the percentage compared to those of the previous year. Of the total number of these rescues, 220 were non-urgent.

69.62% of the rescue responses were for assisting and aiding persons, representing 2,936 interventions. 25.16% were rescues in lifts (1,061 interventions). The rest, correspond to 21 cadaver recoveries and 199 attendances to live animals.

Of the total number of rescue interventions, medical assistance was provided in 2,421 cases, and our medical teams performed 1,744 transfers to hospitals.

The distribution of rescues along the week shows Sunday having least activity (13.45 %), and Monday with the most emergency services, with 15.30 % of rescues.

Rescue services were improved by more than 4 points according to the service charter commitment, which states as its objective that arrivals should be under 10 minutes for at least 90% of emergency-service response. This was achieved for 94.54% of cases for 2006, compared to 93.99% of cases for 2005. In 66.02% of emergency rescues, arrivals took under 5 minutes (62.64% for 2005).

Number of rescues according to time of day

Time band	No. of Services
from 12 am to 4 am	354
from 4 am to 8 am	303
from 8 am to 12 pm	777
from 12 pm to 4 pm	1,057
from 4 pm to 8 pm	871
from 8 pm to 24 am	855
Total for 2006	4,217

64.15% of emergency-rescue interventions took place during the day, and 38.85% at night. In 2005, arrival times to emergency-rescue sites were 62.88% and 73.12% respectively.

Arrival time at emergency site - emergency rescue service

Arrival times	No. of Services	Accumulated	Accumulated percentage
from 0 to 5 minutes	2,639	2,639	66.02
from 5 to 10 minutes	1,140	3,779	94.54
more than 10 minutes	218		
Total for 2006	3,997*		

* 220 non-urgent rescues have not been included (recovery of cadavers and live animals)

Typical features for rescues in the city of Barcelona

Type of rescue	No. of Services	Percentage
Assistance and aid to persons	2,936	69.62
Lift Rescues	1,061	25.16
Cadaver recoveries	21	0.50
Attending to live animals	199	4.72
Total for 2006	4,217	

Number of rescue services per district*

District	No. of Services	Percentage
Ciutat Vella	451	10.71
Eixample	1004	23.84
Sants-Montjuïc	439	10.43
Les Corts	208	4.95
Sarrià-Sant Gervasi	399	9.48
Gràcia	262	6.23
Horta-Guinardó	305	7.25
Nou Barris	346	8.21
Sant Andreu	273	6.48
Sant Martí	523	12.42
Barcelona	4,210	

* 7 services performed outside the city limit

Emergency-intervention services: technical support

Fire fighters, apart from putting out fires and rescuing persons, animals and property, also perform a variety of other services, described as “technical support”.

3,700 operational technical-support services were performed in 2006, a figure representing 23.48% of all interventions.

Of these, 6 were performed outside the immediate municipality.

3,690 services of this type were performed in 2005, a very similar figure to that of 2006.

If we then add the 1,202 operational prevention services, preventive measures, manoeuvres and simulations, the figure rises to 4,901. This is 31.11% of the total.

Number of technical support responses according to time of day

Time band	No. of Services
from 12 am to 4 am	401
from 4 am to 8 am	286
from 8 am to 12 pm	744
from 12 pm to 4 pm	833
from 4 pm to 8 pm	791
from 8 pm to 24 am	645
Total for 2006	3,700

64% of technical support responses took place during the day while 36% occurred at night.

As for preventive measures, manoeuvres and operational preventions, 83.93% occurred during the day and 16.07% at night.

Building pathology where incidents arose

Most probable causes	Percentage
Lack of maintenance	30.96
Water leakage	15.90
Fixing-element rusting	8.47
Defective construction	11.19
Works	13.39
Land settling	4.39
Wind or rain	5.33
Traffic accidents	2.41
Inadequate morphology	1.67
Fire or explosion	0.73
Others	5.54

Types of technical support and preventive services, manoeuvres and operational prevention

Types	Subtotal	
	Number	Percentage
Shoring	22	0.45
Construction surveys	512	10.45
Façade rehabilitation	427	8.71
Water leakage	808	16.49
Disconnecting alarms	199	4.06
Cleaning road surfaces	114	2.33
Consolidation, removing obj. and trees	800	16.32
Removing vehicles	115	2.35
Cooperation with institutions	143	2.92
Supplying power or light	98	2.00
Examining products	114	2.33
Gas leakage	264	5.39
Spillage of liquids	71	1.45
Preventive activities and manoeuvres	1,201	24.50
Others	13	0.25
Total	4,901	100

Places giving rise to technical support and preventive services, manoeuvres and operational prevention

Place	Subtotal		Total	
	Number	%	Number	%
Buildings			3,099	63.16
private residence	2,185	44.58		
public residence	26	0.53		
administrative	76	1.55		
bars, restaurants, shows and meeting points	82	1.66		
for educational use	39	0.79		
factories and warehouses	336	6.84		
commercial buildings	205	4.16		
garages and car parks	73	1.49		
in construction	55	1.12		
medical	22	0.44		
Public thoroughfares			997	20.35
Miscellaneous			805	16.49
building sites	39	0.80		
forest areas	369	7.53		
beaches and rivers	386	7.88		
others	11	0.28		

Number of technical-support responses per district*

District	No. of services	Percentage
Ciutat Vella	506	13.69
Eixample	650	17.59
Sants-Montjuïc	493	13.34
Les Corts	185	5.00
Sarrià-Sant Gervasi	470	12.72
Gràcia	288	7.79
Horta-Guinardó	267	7.28
Nou Barris	215	5.82
Sant Andreu	213	5.76
Sant Martí	407	11.01
Barcelona	3,694	

* 6 outside the immediate vicinity of the city

Outstanding services

Fire at factory plant

1 February. A fire broke out in a metallurgic factory plant, on Carrer Almíral Okendo, on the municipal border between Barcelona and Sant Adrià del Besòs. On the fire-fighters' arrival, the flames had already spread through the building onto its façade and roof. In total, some 400 m² of one of the two plants, each being 900 m² in size, burnt down. To put out this fire, three pumper trucks and one aerial-ladder truck belonging to the Barcelona Fire Brigade and two pumper trucks and one aerial-ladder truck belonging to the Autonomous Government of Catalonia were mobilised. The fire was fought using five hosepipe lines on the building's façade and the neighbouring plant. The two access doors were forced open and two passage ways created using the aerial ladders on the roof. The flames were controlled within an hour and thirty minutes, the same time that was required for extinguishing the cinders. The cause of the fire was unknown, but it was thought the fire started in the office area and spread to where the machinery was located. Even so, the fire did not affect the neighbouring plants.

Fire in a car-park

9 February. A fire broke out in the underground section of a car-park in Carrer Amílcar. Initially, a motorcycle and three vehicles had caught fire and started burning fiercely. Two 25mm hosepipes were used on the fire and breathing apparatus had to be employed. Later, when it was clear that the fire was spreading, two foam-extinguishers were then used. Two hours later, the fire was put out. In the end, eight vehicles and a motorcycle were destroyed by fire and another 18 cars damaged by the extreme heat. While the building suffered damage in its ceiling, walls and basement facilities, there were no resulting structural dangers which required evacuation.

Evacuation

15 March. The Fire Brigade performed a complete evacuation of the property on 338 Passeig de Fabra i Puig, owing to the collapse of a load-bearing wall on the second floor which had been overloaded. The evacuation, which lasted until all the consolidation works for the building had been completed, affected 67 neighbours. In the following days, the Fire Brigade cooperated with those in charge in the District in shoring the building structure. At the same time, preventive measures were taken to remove the neighbours' personal belongings. Two days after the event, all the neighbours returned to their homes, with the exception of residents on the fourth floor, because the shoring had restricted access to their flats.

Incidents at the Raval quarter

The last outstanding response service for March took place as a result of the “*botellón*” (out-door, mass binge-drinking) street party in the Raval quarter of the city. As a result of this popular street party, riots broke out around the Ramblas area during the early hours. Some 50 response services were called in to deal with rubbish containers that had been set on fire. During the response services, two Service vehicles were attacked, which resulted in their windows being broken and one fire-fighter being wounded in the eye.

Two factory plants catch fire at Can Ricart

4 April. At 1:45 pm, a fire was reported in two of the factory plants at the Can Ricart complex at Poble Nou. The fire had started on the inner yard of the block formed by the intersecting of Carrer Espronceda, Carrer Perú, Carrer Bilbao and Avinguda Diagonal. Thanks to calls made by various neighbours, the Brigade sent out a full emergency-response team from the Llevant station, equipped with 2 pumper trucks, 1 aerial ladder truck and 1 ambulance. When a large column of smoke was seen rising up in the sky, reinforcements were quickly mobilised (a further two pumper trucks and the Duty Chief). The initial fire-fighting took place from the Clock Tower staircase. First a hole was drilled in the wall surrounding the access point from the tower and then the plant's access doors were forced open. The two reinforcement pumper trucks attacked the fire from the side street of one of the plants, to prevent it spreading out towards the neighbouring plants. The flames damaged the entire first floors of the two plants, each having an area of about 350 m². As soon as the magnitude of the fire was realised, two further pumper trucks and a second aerial-ladder truck were mobilised to fight the flames emerging from the back wall of the second plant. The Day Chief, District Councilor and other municipal representatives arrived at the scene in person. After the roof coverings collapsed, the fire was then attacked from two aerial ladders over the roof of the plants.

At 7:30 pm, after the fire had gone out, the Fire Brigade withdrew its active vehicles. Later, at 11 pm, a pumper truck was sent out to the area to check that no cinders had caught fire again. The fire damaged the first floors and the roof coverings. One had completely collapsed, the other only partially. Inside, the flames had engulfed piled-up scraps of wood and burnt down the wooden roof frames (nine in all). Fortunately there were no injuries. Nor did the Clock Tower, situated just at the side of the plants affected by the fire, suffer any structural damage. The cause of the fire is unknown, but several

factors point to it having been caused intentionally. The fact that the premises were abandoned and walled in, and therefore, that there was no activity within the building or installations susceptible to fire-outbreaks clearly suggests that arson may have been involved. Apart from that, both the speed of the fire's initial growth and the strength of its flames point to the possible use of fire accelerants.

Fire in a private residence

22 June. At 12:45 am, a fire was reported at a private residence at number 48 Avinguda Paral·lel. On the fire-fighters' arrival, fierce flames could be seen pouring out from the building's façade while people on the balcony were calling out for help.

The fire was fought with a 25mm hosepipe from the building's staircase, using breathing apparatus. One person who was on the balcony looking out onto the street was rescued using the aerial ladder. Another person was also attended to and transferred for smoke inhalation, while a third person suffered 2nd and 3rd-degree burns.

The cause of the fire, according to the statements of residents themselves, was a candle left on a piece of furniture.

Explosion

8 July. The Barcelona Brigade received various calls prompted by an explosion at the junction between the Rambla Prim and the Besòs water-treatment plant.

The incident started at the Besòs water-treatment building used for sludge drying. A large explosion occurred inside the facilities there. Burst pipes, displaced metal parts from off the ceiling's grating and a small fire confined to the top section of the plant were discovered.

During this particular emergency intervention, the Brigade divided itself up into two teams: one for locating and rescuing people inside, and the other for putting out the fire. Two wounded workers and one deceased person were located on the intermediate floor. The wounded, who were in a serious condition, were moved to hospitals.

The fire originated from an internal explosion of the "D" sludge-drier, one of the four carrying out the process of sludge drying at a temperature of around 200°. Even so, the actual causes remain unknown.

Death of five workers

27 July. Five workers died when a wall of the building they were working on collapsed. The building was located at 123 Carrer Almogàvers.

The Barcelona Fire Brigade was able to rescue one seriously-injured worker, who was moved to the Mar Hospital, while two others managed to escape on their own.

The project manager's statement assured that at the time of the collapse the workers had been preparing the ground in an area dug down to a depth of six metres, without having carried out any preliminary shoring work. Just then a 15-metre-long stretch of the old protecting wall collapsed on top of the men.

The workers carrying out the clearing went on until midnight, only stopping when they came across the bodies of the five workers, situated in a 6 m² space and grouped around a wooden hand ladder which they had been using to get access to the work area.

Forest fire

7 August. The Fire Brigade was requested for a fire at the road connecting Horta with Cerdanyola. On its arrival, a vehicle was found to have crashed against the mountain, setting off the fire. The Brigade then proceeded to put out the fire coming out of the vehicle and along the surrounding vegetation. The fire had taken on huge proportions owing to the strong easterly winds that helped it spread upwards.

Four vehicles were mobilised along the AO4 track linking the road to Horta in Cerdanyola to the road to the North Cemetery to deal with the fire. At this point the Brigade managed to put out the fire. However, flames had moved down towards the North Cemetery road, and then crossed it, carrying on towards the Sant Llätzer Hospital. Two more vehicles were mobilised along the motorway and another at Sant Llätzer.

The Autonomous Government's Fire Brigade mobilised nine vehicles, distributed along the perimeter, which assisted in the fire-fighting operation. Aircraft, consisting of three helicopters, two small aeroplanes and a coordination helicopter, took also part in the operation. At 11 am the fire began to fall under control. Dousing work was then commenced along the affected area, which contained roughly 7 hectares of brushwood. The aircraft were then withdrawn.

Part of the land force was withdrawn by 12:30 pm, although three pumper trucks remained on the AO4 route below Can Ferrer, dousing the perimeter.

At 2 pm a strong westerly wind appeared, causing the supposedly extinguished area to catch fire again, and fiercely. The fire crossed the AO4 route and moved upwards towards the Torrent de Sant Iscle, a thickly-wooded area full of pine trees and high brushwood.

At around 4 pm the fire fell under control once six lines of hoses, coming from 7 Barcelona Brigade pumper trucks and 6 Autonomous Government pumper trucks, and three helicopters had been deployed.

Control tasks and full extinguishing continued until 10 pm, by which time the land force was withdrawn.

15 hectares of pine trees and brushwood ended up destroyed.

Fire casualties

7 September. The Fire Brigade was requested for the roof-flat (no. 1) at 19 Carrer Séneca, because of a fire on the roof. On the Brigade's arrival, smoke could be seen rising from the top part of the building. Neighbours reported that the roof-flat (no. 1) had caught fire and that its resident was an old woman living on her own.

Access was gained to the roof-floor landing and smoke was seen pouring out of cracks in the door to the flat concerned.

The door was battered down, and the flat entered with breathing apparatus and a 25mm hose. The hose put out the fire. The flat was then searched and a person found. That person was taken out of the flat onto the landing, where we discovered she was dead.

As a preventive measure we cut off the gas supply from a gas pipe affecting 50% of the building. The supply company's technical support was then informed of the rescue operation.

The whole flat was damaged by the heat and smoke. The bedroom was completely destroyed. Once the fire was extinguished and the flat ventilated, the Mossos d'Esquadra were left in charge there.

25 September. We were called out by various residents who had heard an explosion and seen flames emerging from the window of the 5th floor residential flat in 35-39 Carrer Mossén Quintí Gallofré. We sent out a full emergency-response unit (small cars) from the Sant Andreu station, accompanied by the Duty Chief.

On our arrival at the place, flames were seen shooting through 3 of the street-facing windows of the 2nd flat on the 5th floor. The flames were reaching the windows of the 2nd flat on the 6th floor. We requested the aerial ladder truck, as the normal ladder truck had not arrived. The building's residents were being evacuated by the Guàrdia Urbana. Equipped with hoses, we managed to get into the flat from the building's stairway by forcing open the emergency-access door. We put out the flames and found the resident, 80 years old, lying on the living-room floor, in cardio-respiratory arrest. We found the wife on the property's balcony holding a 5-month-old girl in her arms. The woman was unharmed while the girl had superficial burns to the face and hands. We carried out CPR manoeuvres on the man, and when the 061 team arrived we took him down to the ambulance, where he was taken to the Vall d'Hebron hospital. We were later informed of his death.

Once the flames were extinguished, we evacuated the woman and child, taking them to the Vall d'Hebron hospital. According to the woman resident's statement, they were heating up the child's food in a camping-gas cooker, when it exploded for some unknown reason, causing a shock wave which levelled two partition walls and set off the flames. This cooker had been put in a room outside the kitchen, from

what we could deduce from the collapsed partitions and the remaining debris.

Two rooms, the living room, the doors to another room and the toilet were completely burnt down. The rest of the flat was damaged by the smoke and heat. The shutters of the flat above, number 2 on the 6th floor, were also burnt and its windows shattered.

The girl of 5 months turned out to have suffered 1st to 2nd degree burns to the face and hands.

Trapped child

26 November. We were called out to 323 Carrer Roselló by the mother of the child concerned. We came across a 22-month old child who, while playing, had caught his head between the railing bars of the balcony and become stuck there. As the bars were conical, we helped him move his head out through where the space was at its widest.

After he was freed, the child was found to be unharmed.

Death of a dog from an explosion and outbreak of fire at a florist's

2 December. We were called to Carrer Comandant Benitez, owing to an explosion and subsequent fire at a florist's. On our arrival, we noticed a lot of smoke coming out from the florist's commercial premises that were shut. The building's stairway was also full of smoke.

The shop's security bars were then cut. Once enough space was made, we entered the premises equipped with breathing apparatus and a 25mm hose. We put out the fire.

At the same time, the team checked the building's stairway and ventilated it by opening the windows. The neighbours of the surrounding flats were instructed through the intercom not to leave their flats.

While we were putting out the fire, we discovered a dead dog inside the shop. Everything seems to point to the fire starting, from unknown causes, in some of the baskets containing dried flowers that were on the floor by the side of the shop's counter. The explosion was possibly caused as a result of a violent ignition of combustion gases (*flashover*).

The front section of the shop, some 24 m², was badly damaged by the explosion and subsequent fire. The rest of the shop was damaged by smoke.

Fire in a flat

7 December. We were called to number 7 Carrer Biada because of a fire in the building's porter's lodge.

On our arrival at the emergency site, considerable amounts of smoke were seen in the building's foyer.

The neighbours stood by the windows of their homes. We created two work groups, each equipped with breathing apparatus.

One group checked the stairway while the other, using a 25mm hose, put out the fire that had started in the porter's living quarters below. The general gas supply to the building was turned off during all this, as the lead pipes had been damaged and gas was burning freely. Once the staircase had been checked without any new development being discovered, the windows and terrace door were opened to allow full ventilation of the stairway.

The fuse box was checked and it was observed that the fuses had melted.

Later, all the neighbours were contacted in person to see if any of them had been injured.

The causes of the fire remain unknown. The porter explained that she spotted the fire just when she had returned home and opened the door. The first thing she did was to go out into the street but she then went back in, to the staircase, to inform the neighbours. She ended up taking shelter in the 1st flat of the 2nd floor. The living room to her quarters in the porter's lodge, an area of about 6 m², was completely damaged, as was her bedroom, from the effects of the smoke. As for the building's stairway, smoke and heat had damaged the lead gas-pipes, the basement area of the lift shaft, the doors of the main floor and the stair shaft, as well as the general fuse box for the building.

The Gas company was contacted and asked to send someone to the building who, once there, checked that the general stopcock was properly turned off.

Resuscitation of a cat

17 December. We were called out to 7-11 Carrer Banyoles because of smoke in a flat.

When we arrived, the owner of the flat was standing on the street and told us that she had tried to enter the flat only to discover it was full of smoke. She had left the door open with the keys in the lock and consequently the stairway was full of smoke above the floor of the fire. It was not known whether all the neighbours had gone down into the street or not. For that reason, the Emergency Management Centre was contacted and asked to send a reinforced tank and ladder to complete the evacuation. Using breathing

apparatus and a 25mm hose inside the stairway, we entered the flat, located and put out the fire in the living room.

We then proceeded to ventilate the flat. There we found a cat lying on the floor showing difficulty in breathing. We took it out onto the stairway landing, where the Medical-Assistance officer gave it oxygen.

The building's stairway was then ventilated. The causes of the fire remain unknown. The fire damaged the living room, an area of roughly 6 m², while smoke that came from the combustion damaged the rest of the flat.

Team and training

In 2006, the Barcelona Fire Brigade was made up of 765 men and women, of whom 710 were fire-fighters, the rest being management and support staff.

Of those recruited, 47 were new fire-fighters and 1 was a technician.

Unfortunately, 2006 saw the sad loss of our colleague Sergi Bosch Mir.

It should be emphasised that the 47 new fire-fighters were recruited following the 2006 public employment offer and that the internal promotions to corporal made were for 18 places.

The distribution of staff was as follows:

	Number	Subtotal	Total
Staff			765
Staff with administration, technical and management duties		64	
Senior technicians	11		
Middle-ranking technicians	26		
Management	21		
Others	6		
Operational staff		701	
Officers	23		
Medical assistants	21		
Sergeants	27		
Corporals	80		
Fire-fighters	550		

Internal training

In January 2006, in compliance with the agreement, the lists of staff proposed for off-shift training throughout the year were published. Training which started in February.

This year training activities - such as extinguishing fires indoors, those already commenced beforehand, chemical hazards and rescue - were intensified for emergency-intervention staff. The last two activities were commenced in 2006 to be undertaken, progressively, by all emergency-intervention staff. The three training activities consisted of 38 programmes and were attended by 313 members of staff.

In 2006, a total of 18 staff left while 48 new members were recruited.

Of those who left, 16 were retirements, 1 was a transferral and 1 was a death.

Starting from the second quarterly period, various training activities were planned and carried out during shifts. Throughout the year, 24 different courses programmes were undertaken including: Prevention of Occupational Risks, level-II Medical Training, Urban Rescue Response and Tree-cutting. A sum total of 184 members of staff attended.

It should be noted that the Medical Assistants completed training specifically for rescue, in the "Introduction to the SAVER Method" course.

After repeated requests to Technical Training Board, 5 programmes on locksmithing were delivered, under the supervision of the Guild of Locksmiths of Catalonia. As a result, 51 persons were trained in the subject of access to locked spaces (opening doors, shutters, etc)

In the last quarterly period, staff at the Emergency Management Centre underwent a course on emergency management development, with those who took part receiving good assessments. Since that course other training essentials were introduced for enabling the highest professional levels of work-place task performance.

Once the Technical Building Code had been approved in 2006, Prevention experts in the Service held various meetings to ensure the optimum implementation of its rules, and to harmonise the criteria used for their interpretation and extend the regulations' requirements for consultations requested through the Barcelona Fire Brigade.

The table below summarises these training activities, including the number of persons who attended them and the total number of study hours.

Training activities in 2006	No. of programmes	Persons attending	Total no. hours
Chemical hazards	10	107	1,926
Locksmithing course at Guild of Locksmiths	5	51	459
Introduction to SAVER method for medical assistants	1	10	180
Office automation, managerial and technical skills	5	6	116
Various course: fire extinguishing, medical training and appliances	20	123	1,455
Courses specifically for drivers	9	85	1,280
Crane and E-21 ladder training	6	42	478
Gaudí Institute Construction Course	6	48	1,008
Construction course for senior officers	5	44	660
Fire extinguishing in maritime vessels at the Centro Jovellanos	2	28	980
Training activities for the Service's technicians	6	14	368
Management course at the Emergency Management Centre	2	14	280
Occupational Risk Prevention	11	95	976
Basic and intermediary courses on urban rescue	5	50	620
Techniques for releasing trapped persons	13	133	1,955
Training days and conferences	3	10	97
Basic Fire-Brigade School course for new fire-fighters recruited in the 2005 Recruitment Campaign.	1	30	7,170
Adaptation course for new fire-fighters recruited in the 2005 Recruitment Campaign	1	30	10,260
Basic Fire-Brigade School course for new fire-fighters recruited in the 2006 Recruitment Campaign.	1	45	11,700
Total	112	965	41,968

Training for newly-recruited fire-fighters

The 30 new fire-fighters from the 2005 Recruitment Campaign began their basic training course at the Fire-fighting and Civil Safety School of Catalonia, on 22 November 2005, continuing with the adaptation course started on 13 February 2006 and ending on 12 May 2006.

The 2005 Recruitment Campaign, benefited from the teaching given by corporal Pere A. Martínez Martínez and corporal Pedro Torres Sánchez, under the coordination of officer Jesús Martínez Armesto.

The 45 new fire-fighters from the 2006 Recruitment Campaign began their basic training course at the Fire-fighting and Civil Safety School of Catalonia on 13 September 2006 and finished it in November 2006. On 17 November they began their adaptation course and it is expected that this will end on 2 March 2007. The adaptation course's hours will therefore be included in the 2007 annual report.

Internal promotion of corporals

In 2006, as a training stage for the competition limited to promoting 18 persons in SPEIS to the rank corporal, the 18 training corporals followed two courses:

Desenvolupament

Course name	No. of activities	No. of persons attending	Total no. hours
Phase-1 command and control course	1	18	432
Phase-2 command and control course	1	18	630

Open class

For the time band between 4 pm and 8 pm, and in the presence of support staff, utilisation is indicated in the following table, compared to the previous year.

Frequency	No. of persons in 2005	No. of persons in 2006
1 - 5 times	131	107
6 - 10	24	24
11 - 15	19	18
16 - 20	2	5
21 - 25	11	15
26 - 30	5	2
31 - 35	1	5
> 35	5	6

Despite there having been considerable movement and change of staff in the station, many persons attended the Class repeatedly.

If we divide up attendance according to function of the different professional categories, we find:

Fire-fighters	1,876
Corporals	21
Sergeants	4
Officers	2
Others	18
Total	1,921

Class resources

We shall group these into five different categories

- Internet
- Interpersonal Relations
- Office
- Technical Documentation
- Own CD

Having observed the data and taken the previous year into account, we can conclude that there was an appreciable increase in two categories: Internet and technical documentation, while it is noteworthy that there was a decrease in interpersonal relations with respect to the previous year.

External training in companies and institutions

In 2006, training was carried out in a total of 54 entities, among which the following are stand out:

Institutions: Parliament of Catalonia, Autonomous Government of Catalonia, The Inland Revenue Service Special Territorial Delegation for Barcelona, Spanish Council for Scientific Research, Pompeu Fabra University, Autonomous Government Fire Brigade, Girona University School of Nursing, Barcelona Port.

On municipal or local level: Barcelona City Council: Municipal Building Emergency Plans, Barcelona's Parks and Gardens, Hospitalet City Council, Vilanova i la Geltrú City Council.

Companies: Autopistes de Catalunya S.A., Cobra Instalaciones y Servicios S.A., Holding e-La Caixa, Snaks Ventures, Matutano, Cadbury-Schweppes, B.E.S.A., La Casa de las Mantas

In total, **1,297 persons** were trained, with a total of **5,836 hours**, as shown in the following table:

External training in companies or institutions	Number
Basic course programmes on extinguishing techniques	136
Intermediate course programmes on extinguishing techniques	9
Advanced course programmes on extinguishing techniques	10
Rescue technique sessions	6
Company training programmes for preventing fires	13
Total number of programmes	174
Total number of students	1,297
Total number of student hours	5,836
Companies and institutions	54

General services and technical resources

Vehicles

Station vehicles	Vehicle type	Subtotal	Total
Pumper truck	B-100 light (1000 l.)	10	24
	B-200 all purpose (2500 l.)	5	
	B-300 heavy (3000 l.)	6	
	B-400 large fire (5000 l.)	3	
Ladder and crane truck	E, > 30 m	6	8
	E, > 20 m	2	
Rescue	C (Charlie)		5
Ambulances	S (Sierra)		5
Intervention-support vehicles (crane, air, foam, gas-oil tank, underwater, shoring, hose, container)	J (Julliet), G (Golf)		9
Auxiliary vehicles	headquarters	8	30
	department	4	
	inspection	8	
	general station support	8	
	cargo trucks	2	
Total fleet of vehicles			81
Special containers and cargo	NBC Interventions	1	5
	Interventions in serious accidents	1	
	Advanced Command	1	
	Cargo	2	
Total containers			5
Rescue ships			5

Average age of intervention vehicles:
7.92 years

Average age of auxiliary vehicles:
8.89 years

New acquisitions

- Paid for by the 2006 budget
- A 37m turn-table ladder. **Cost € 564,800**
- An ambulance **Cost € 96,000**

- Paid for by the biennial **2006-2007** budget
Three light, pumper truck vehicles: B-119; B-120; B-121. **Cost € 160,000**
(Total cost of the three vehicles: € 479,574)

The cost of purchasing new vehicles bought during 2006, paid for in the municipal budget, was **€ 820,800**

Vehicle maintenance

In 22006, 99 vehicles passed their MOT, some of which had to undergo the MOT twice a year, had 120 check-ups in preventive maintenance planning (80 vehicles and 40 pieces of equipment) and received 1,044 specific repairs in the area of corrective maintenance.

Vehicle B-109 underwent significant repair too (body, equipment support and extinguisher pump).

Operational material

Resources were provided for guaranteeing replacement and maintenance of operational service material.

The most important intervention materials acquired in 2006 were:

- 10 (25-diameter) Diffusers
- 4 Gas detectors
- 7 Chainsaws
- 4 Abrasive cut-off machines
- Blowtorch welding and cutting equipment
- Electrician tool kit
- Protective overalls
- 40 (25-diameter) Hoses
- 150 Precision telescopes
- 4 Rescue-equipment bags
- 1 foldable rescue stretcher

Maintenance and work

Regarding the maintenance of the seven fire-fighting stations, in 2006 a total of 580 work orders were performed in order to carry out preventive and corrective maintenance tasks (maintenance of buildings, facilities, extinguishers, backup power suppliers, lifts, alarms, etc.).

Among all the work carried out at the different stations, the following stand out :

Eixample Station

- Adaptation of the old CECOB training classroom
- Individual air conditioning (heating pumps) in the fire-fighters' sleeping quarters
- Standardising the entrance-door openers with those of the other stations

Sant Andreu Station

- Significant repairs to the air-conditioner on the roof
- Protection of the automatic doors to the service hall with photoelectric cells.

Zona Franca Station

- Significant repair of the Fire Tunnel
- Change of air-conditioner for the first-floor sleeping quarters
- Extracting oil residues

Vall d'Hebron Station

- Standardising the entrance-door openers with those of the other stations
- Kitchen chimney extension to the roof to prevent the entry of smoke and grease into the air-conditioning ducts

Llevant Station

- Protective support for wall of the officers' and medical assistants' sleeping quarters
- New office of the Unit Chief
- New changing room for the Training Area
- Ventilation window opening in the telephone switchboard room

IT Systems

In the realm of IT management and maintenance systems, in 2006 some 457 different assistance services were provided for IT equipment and applications at the different stations.

We shall highlight the following activities too:

- Monitoring intervention material.
- Monitoring maintenance incidents
- Monitoring Emergency Management Centre incidents.
- Improving application for storage.
- Service data statistics

Cleaning

In 2006 the following cleaning services in SPEIS were managed:

- Building Cleaning Service
- Breathing Apparatus Equipment Cleaning Service
- Vehicle Cleaning and Ambulance Disinfection Service.

As for the Vehicle Cleaning and Ambulance Disinfection Service, it should be noted that disinfection was made using an authorised “protocol” procedure for Barcelona City Council's Occupational Risk Service, and that this was less aggressive to the environment than others based on ozone.

As for the Breathing Apparatus Equipment Cleaning Service, it must be said that the work was supervised and managed by a senior officer at SPEIS and carried out by staff “accredited by an EC- standard company”

As for the Building Cleaning Service, it should be added that in 2006, a “Coordination Protocol” was successfully developed for rescue training and implemented among the Operations Division and the Cleaning Management, as was a “Work Procedure” for extracting collected glass and metallic dust.

Monitoring of the cleaning quality was carried out through a “Quality Audit” contracted out to the company ECA.

Comparison table 2002-2006

	2002	2003	2004	2005	2006
Preventive activities					
Inspections, project reports and consulted emergency plans	1,822	1,808	1,897	1,919	2,520
Attending to citizens					
Technical office consultations	1,190	1,123	1,084	1,060	1,018
Technical consultations by telephone	5,251	4,798	4,259	3,489	3,051
Interventions					
Fire or explosion, rescue, technical support, false alarm	15,447	15,003	14,099	16,020	15,758
Internal training					
Total number of programmes	69	145	104	119	112
Total number of persons attending	1,086	1,633	1,001	1,029	965
Total number of hours	22,997	33,911	21,397	20,750	41,968
External training					
Total number of programmes	224	190	222	177	136
Total number of students	2,038	1,715	2,159	1,775	1,297
Total number of hours	7,451	6,125	6,544	5,348	5,836
Companies and institutions	72	66	51	60	54

From the table above, regarding the last five-year period, we can highlight the following points:

- A global increase in prevention of over 30 % has been observed, resulting from the supervisory work of files at the Municipal Environmental Commission.
- A slight decrease was seen in intervention services, specifically in fire and rescue operations, but the figures for technical support remained the same.
- There was an increase of over 100 % in internal training hours, resulting from the training of newly-recruited fire-fighters (2005 and 2006 recruitment campaigns), but there was a slight decrease in external training.

Cooperation with entities and other activities

New collaborative agreements

- **The collaborative agreement between Barcelona City Council and the Barcelona Port Authority, when exercising their respective jurisdictions in the event of civil protection, fire-prevention and extinguishing and rescue.** The objective is to guarantee what is provided for in the Barcelona Port Interior Emergency Plan. It essentially aims at increasing the safety level of the Port and, consequently, the rest of the city.
- **Agreement to establish collaborative bases to improve citizens' information and awareness regarding fire prevention and self-protection, with the Private Municipal Company INFORMACIÓ I COMUNICACIÓ DE BARCELONA, SA.**

Humanitarian aid

The Barcelona Fire Brigade continued to collaborate with different fire-fighting NGOs and with the 2006 Solidarity Caravan in west Africa, from 25 November to 19 December, organised by Barcelona Acció solidària (Barcelona Solidarity Action).

- In the context of the Solidarity Caravan, we collaborated by providing human resources (a fire-fighter and a medical assistant) and materials. We distributed medical, hygiene-related and first-aid material. The Caravan transported 100 tons of medical, educational, agricultural and IT material. It facilitated the launch and maintenance of 68 projects for 33 NGOs.

- It collaborated with the NGO Acció Solidària i Logística (Solidarity and Logistical Action), providing various materials.
- It collaborated with the NGO Bomberos Humanitarios (Humanitarian Fire-fighters), providing various material for fire-fighters in Minsk, Belarus, specifically the E-6 ladder truck, and material for children's hospitals. This NGO organised a truck convoy, led by some of the Barcelona Brigade's fire-fighters who were members of this body.

Second Internal Rescue Championship

On 11 and 12 May, the II Internal Rescue Championship for the Barcelona Fire Brigade was held in the Llevant station. Five teams from different shifts and stations participated, the winner being the one with Medical Assistant Núria Molina (Llevant A), Sergeants Fernando Jovellar (Sant Andreu B), José Antonio Alcoba (Drassanes E) and Eduard Just (Zona Franca B) and Corporals Pedro Torres (Vall Hebron E) and Joan Carles Guarné (Eixample A). In addition, the best team leader was Fernando Jovellar and the best medical assistant Carolina Granada (Eixample D). The winner team represented the Barcelona Fire Brigade in the Second National Championship.

Second National Rescue Championship

From 29 May to 2 June, the II National Rescue Championship was held in Pamplona, organised by the Rescue from Traffic Accidents Professional Association. This championship was the second of its kind in Spain. The success of the event was clear: in a few weeks eighteen places on offer were filled. Teams from Valencia, Catalonia, Murcia, Andalusia, Extremadura, Galicia, La Rioja, Navarra, Madrid, Castilla La Mancha and the Canary Islands took part.

In the overall category for teams, the participating team from Valencia received the most marks. The Barcelona Fire Brigade team won second place in the general classification and came first in "limited manoeuvres". In the special classification for medical staff, the most valued professional was the medical assistant from the Barcelona Fire Brigade team, Núria Molina.

As well as the championship, the II Technical Rescue Day for Transit Accidents was held, which was widely attended and participated in by all sectors concerned. For some days, Pamplona was the rescue capital.

2006 World Rescue Competition in Cape Town

From 9 to 13 October, the Barcelona Fire Brigade team participated in the World Rescue Championships held in Cape Town, South Africa.

This team accompanied the Valencian team to the world championships, since it held second place. The results were :

- 13th place in the general classification
- 10th place in the leadership classification
- 10th place in the medical assistance classification

In sum, 26 teams took part, representing England, Scotland, Wales, Sweden, New Zealand, Australia, South Africa and Spain.

Fahrenheit 451 magazine

Publication of this internal communication tool continued, with three new issues being produced.

Sport participation

VIII Barcelona Fire Brigade Race

On Sunday 9 April 2006, the VIII Barcelona Fire

Brigade Race was held, in a 10km urban circuit, starting off from Passeig de Pujades and finishing at Passeig de Picasso.

The 2006 event beat a new participation record, with over 10,300 persons having signed up for it.

This sporting event became a point of reference for athletics aficionados, among whom were numerous fire-fighters.

IX World Fire-fighter Games - Hong Kong 2006

The IX version of World Fire-Fighter Games was held in Hong Kong, China, from 15 to 19 February, counting on 25 representatives from the Barcelona Fire Brigade. Our athletes won new medals, proving themselves outstanding in swimming and athletics.

3,000 athletes from 37 countries participated in the Games, and there were 59 categories of competition sports.

Barcelona Fire Brigade's Cultural and Sporting Association: outstanding activities

Culture and Leisure

Festa de Reis (festival of the three wise men).

In January the Festa de Reis was celebrated as an "open-door day" at the Eixample station. The yard was filled with children enjoying the occasion. The best moment was when the Magi of the Orient arrived and patiently attended to all the children.

It should be mentioned that a large number of residents from the quarter took part, bringing their children and grand-children to the party.

Ski trip. In January the traditional ski trip to the Vall d'Aran took place, with a large number present and more requests than places available.

Habanera Concert. On 14 July and for the third time, the Llevant Station held an Habanera concert, in which a large number of fire-fighters and residents from the Sant Martí quarter took part.

Sections. All sport sections of the Association continued in 2006, participating in different competitions and achieving good sporting results in all sections: underwater sports, mountain climbing, football, swimming, golf, volley-ball, athletics, cycling, archery, fishing and power lifting.

Cau del Jubilat activities

Prevention talks: We gave talks on fire and accident prevention at home, screened short films and gave out instructive material, during activities or at nursing homes for the elderly. The most remarkable of these were:

30 March. **City Council, Social Services - Molí dels Frares**
Sant Vicenç dels Horts

17 June. **FiraGran, 8th Saló de la Gent Gran de Barcelona**
Moll de la Barceloneta
(Barceloneta Quay)

Excursions and cultural visits: We organised monthly coach excursions, subsidised according to our possibilities:

6 January	General Meeting at the Colònia Rosal (Berguedà)
28 February	Caçotada in Cambrils
20 March	Pinxo Train of Banyoles
20 April	Capellades Paper Museum
4 to 10 May	Monumental Andalusia, seven days
6 June	With the Roses Fire Brigade
7 and 8 October	Sant Martí del Canigó
28/29 November	Andorra, at the Delfos hotel
21 December.	Pre-Christmas celebrations at Platja d'Aro, La Terrassa hotel

The February meeting is a outstanding support and company event, as was the one we held at Roses in June, with dinner in the Fire Station prepared by the Fishermen's Guild. The outing to Conflent in October was also extremely satisfactory, with the visit to the monastery of Sant Martí de Canigó (travelling by jeep) and trip in the French yellow train.

The cultural outing to the CaixaFòrum made on 14 December, with the guided tour of the modernist building that once manufactured textiles and the "El món d'Anglada-Camarasa" painting exhibition.





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