# 2014 Management Report





# **Contents**

6	1. RESPONSE OPERATIONS AND SERVICES
6	1.1 RESCUES
7	1.2 FIRES AND EXPLOSIONS
9	1.3 TECHNICAL ASSISTANCE
10	1.4 SITE KNOWLEDGE AND SURVEILLANCE: OPERATIONAL PREVENTION
11	1.5 TABLES SUMMARISING RESPONSE OPERATIONS AND SERVICES
24	2. MAIN OPERATIONS
34	3. OUR WORK STARTS WITH PREVENTION
34	3.1 CIVIL PROTECTION AND PREVENTION
34	3.2 CIVIL PROTECTION PLANNING
35	3.3 REGULATION AND PREVENTION SERVICES AND OPERATIONS
38	4. PLANNING DIVISION
38	4.1 TECHNICAL SUPPORT
40	4.2 PROCEDURES
46	5. OUR PEOPLE
46	5.1 ORGANISATION CHART
50	5.2 TRAINING
54	5.3 SELECTION
55	5 / DDEVENTION HEALTH AND SAFETY



# Response operations and services

#### RESPONSE OPERATIONS AND SERVICES

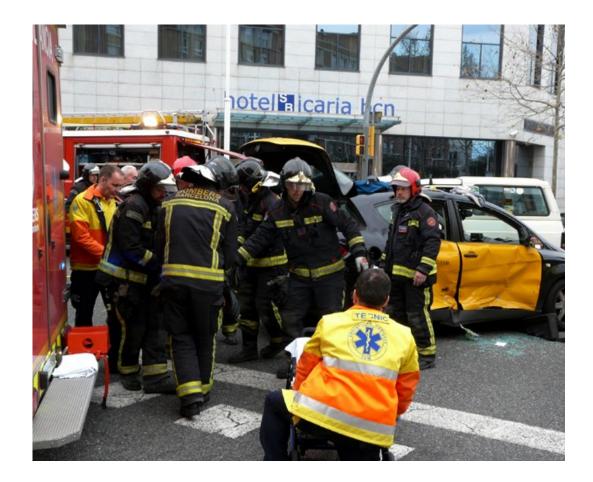
In the course of 2014, the Fire Service carried out 15,143 responses, an increase of 1,225 (8.8%) on the 13,918 carried out in 2013.

#### 1.1 RESCUES

Response operations and services

2014 Management report

Barcelona Fire Service



There were 4,115 rescue responses last year, 207 more than in 2013, a figure representing 27.17% of all responses. Three of these responses were performed outside the city boundaries. During 2013, there were 3,908 rescue operations, representing 28.08% of the total.

Out of all last year's rescues, 326 were non-emergencies.

In 2,438 cases, 59.25% of the total, the responses involved coming to people's aid or assistance. In another 1,043 cases (25.35%) they involved rescuing people from lifts. The rest involved the recovery of 30 corpses, the rescue or capture of 296 live animals and 308 false alarms.

6

Medical assistance was given in 1,741 of all rescue responses and our medical teams took 389 people to hospital. The Medical Emergency Service (SEM) took all the other cases to hospital.

The weekly spread of rescue operations shows Wednesday as the least busiest day (12.47%) and Saturday as the busiest, with 16.84% of rescues.

#### Emergency-service response times:

Rescue operations in Barcelona outperformed the Service Charter's pledged target by 5.5% (to arrive in under 10 minutes in 90% of emergency cases), arriving in 95.53% of cases within the 10 minute period, compared to 96.65% in 2013. In 74.02% of emergency rescues within the Barcelona municipal area the response time was under 5 minutes (76.77% in 2013).

# 1.2 FIRES AND EXPLOSIONS



Response operations and services

2014 Management report

Barcelona Fire Service

7

R

Response operations and services

2014 Management report

Barcelona Fire Service During 2014 there were 3,623 responses to deal with fires and explosions, a figure that represents 23.93% of the total. In absolute terms, we dealt with 364 more fires and explosions last year than in 2013.

The number of fires was up on previous years and this was linked to the increase in the number of fires dealt with on the roads, because the number of building fires remained the same. Fourteen responses took place outside the city boundaries.

Out of a total 3,623 responses, 1,877 fires started on the public highway, a higher figure than the 1,493 recorded in 2013. We dealt with 1,565 fires in buildings - of which 1,110 had originally broken out in homes - representing 30.64% of our fire responses.

We responded to 49 woodland fires, compared to 54 in 2013, a fall of 9.26% confirming the downward trend of recent years. This type of response accounted for 1.35% of fire fighting operations.

An analysis of the fire fighting operations with regard to the days of the week gives us the following data: Wednesday (with 12.97%) was the quietest day, while Saturday (with 16.01%) was the busiest.



#### Fire fighting operation breakdown:

42.89% of operations were performed during the day.

57.11% of operations were performed at night, between 8 pm and 8 am.

#### Emergency-service response times:

Fire operations in Barcelona outperformed the Service Charter's pledged target by 7% (to arrive in under 10 minutes in 90% of emergency cases), arriving in 97.10% of cases within the 10 minute period, compared to 97.88% in 2013. In 79.46% of emergency fire call-outs within the Barcelona municipal area the response time was under 5 minutes (81.74% in 2013).

During 2014, the average arrival time for emergencies (fires/explosions and rescues) was 3 minutes, 56 seconds, compared to 3 minutes, 43 seconds in 2013.

#### 1.3 TECHNICAL ASSISTANCE

Fire-fighters perform a large number of very varied "non-emergency" services for the public that are classed as technical assistance.

In 2014, we performed 3,833 technical assistance services (more than the 3,580 performed in 2013), representing 25.31% of all responses.

In 65.01% of cases the technical assistance was provided during the day and in 34.99% at night.



9

# Response operations and services

2014 Management report

10

2014 Management report

Barcelona Fire Service





Operational Prevention is the generic name the Fire and Rescue Service (SPEIS) gives to all the operations that provide better knowledge of possible response sites, both the network of surrounding streets and accesses as well as knowledge of the actual buildings and their particular features. We also include site and activity inspection services as a preventative measure. Both lead to greater effectiveness, efficiency and increased safety.

We performed 2,042 site knowledge and inspection services in 2014, which represents 13.48% of the total. In absolute terms that means 243 more than in 2013.

Of these, 87.86% were performed during the day and 12.14% at night.

Note that among the services of this type carried out in 2014, the ones performed on the ship *Isabel del Mar* which, during its removal for scrapping, helped firefighters learn about and do practice training in a real setting that would be difficult to simulate.

1.5
TABLES SUMMARISING RESPONSE OPERATIONS AND SERVICES

# Responses by fire station: number of call-outs \* and day/night spread

Station	Total	% of total	Day	% of station	Night	% of station
Vall d'Hebron	2,275	12.49%	1,426	62.68%	849	37.32%
Llevant	3,938	21.61%	2,257	57.31%	1,681	42.69%
l'Eixample	5,341	29.31%	3,243	60.72%	2,098	39.28%
Zona Franca	625	3.43%	406	64.96%	219	35.04%
Sant Andreu	2,803	15.38%	1,713	61.11%	1,090	38.89%
Vallvidrera	265	1.46%	257	96.98%	8	3.02%
Montjuïc	2,973	16.32%	1,975	66.43%	998	33.57%
Total sortides	18,220	100%	11,277	61.89%	6,943	38.11%

<sup>\*</sup> An operation may generate call-outs from different fire stations

# Response operations and services

11

2014 Management report

Barcelona Fire Service

#### Response operations and services

Туре	Op/Serv
Fires and explosions	3,623
Rescues (including 1,741 cases of medical assistance)	4,115
Technical assistance	3,833
Operational prevention*	2,042
No action	1,530
Total	15,143

<sup>\*</sup>Inspections, drills, etc.

2014 Management report

Barcelona Fire Service

#### **Prevention services**

Туре	Services
Technical advice	2,474
Activity reports, works and events plans	869
Prevention inspections	262
Emergency plans advised	8
Fire drills attended	3
Total	3,616

#### FIRES AND EXPLOSIONS

# Number of fires according to the time of day

Time period	Operations
From 12 to 4 am	743
From 4 to 8 am	370
From 8 am to 12 pm	314
From 12 to 4 pm	582
From 4 to 8 pm	658
From 8 pm to 12 am	956
Total	3,623

# Response time

Time	Operations	Cumulative	% cumulative
0 to 5 minutes	2,879	2,879	79.46%
5 to 10 minutes	639	3,518	97.10%
more than 10 minutes	105		
Total	3,623		

#### **Extinction time**

Extinction time	Operations	Cumulative	% cumulative
0 to 15 minutes	1,995	1,995	55.06%
15 to 30 minutes	865	2,860	78.94%
30 to 45 minutes	358	3,218	88.82%
Over 45 minutes	405		
Total	3,623		

13

Response operations and services

2014 Management report

#### Places where fires broke out

Place		Subtotal	1	otal
	Operations	%	Operations	%
Buildings			1,565	43.20%
Dwellings	1,110	30.64%		
Public residential	43	1.19%		
Administrative	64	1.76%		
Medical	18	0.50%		
Bars, restaurants and meeting venues	112	3.09%		
Educational	17	0.47%		
Commercial buildings	139	3.84%		
Garages and car parks	62	1.71%		
Roads, streets			1,877	51.80%
Vehicles	152	4.19%		
Rubbish containers	1,019	28.13%		
Other	706	19.48%		
Misc			181	5.00%
Construction sites	22	0.61%		
Industrial sites and warehouses	54	1.49%		
Railway facilities	7	0.19%		
Building plots	47	1.30%		
Woodland	49	1.35%		
Beaches, jetties, sea, rivers and lakes	2	0.06%		
Total			3,623	100%

14

Response operations and services

2014 Management report

# Number of fire and explosion operations per district

District	Operations	%
Ciutat Vella	304	8.42%
l'Eixample	668	18.51%
Sants-Montjuïc	483	13.38%
les Corts	160	4.43%
Sarrià - Sant Gervasi	275	7.62%
Gràcia	235	6.52%
Horta-Guinardó	271	7.51%
Nou Barris	291	8.06%
Sant Andreu	329	9.12%
Sant Martí	593	16.43%
Total	3,609	100%

<sup>\* 14</sup> call-outs outside the municipal area

15

Response operations and services

2014 Management report

16

Barcelona Fire Service

#### **RESCUES**

# Number of rescues according to the time of day

Time period	Operations
From 12 to 4 am	458
From 4 to 8 am	333
From 8 am to 12 pm	735
From 12 to 4 pm	925
From 4 to 8 pm	836
From 8 pm to 12 am	828
Total	4,115

60.66% of rescue operations were carried out during the day and 39.34% at night, compared to 61.51% and 38.49%, respectively, in 2013.

#### **Response times to rescues**

Response time	Operations	Cumulative	% cumulative
0 to 5 minutes	3,046	3,046	74.02%
5 to 10 minutes	885	3,931	95.53%
More than 10 minutes	184		
Total	4,115		

#### Types of rescue operations

Type of rescue	Operations	%
Aid and assistance to people	2,438	59.25%
Rescues from lifts	1,043	25.35%
Recovery of corpses	30	0.73%
Rescue and capture of live animals	296	7.19%
False alarm	308	7.48%
Total	4,115	100%

326 non-emergency rescues were carried out in 2014 (bodies and live animals).

# Number of rescue operations per district

District	Operations	%
Ciutat Vella	359	8.73%
l'Eixample	868	21.11%
Sants-Montjuïc	490	11.92%
les Corts	188	4.57%
Sarrià - Sant Gervasi	345	8.38%
Gràcia	267	6.49%
Horta-Guinardó	358	8.71%
Nou Barris	365	8.88%
Sant Andreu	312	7.59%
Sant Martí	560	13.62%
Total	4,112	100%

<sup>\* 3</sup> outside the city boundaries

#### **TECHNICAL ASSISTANCE**

# Number of technical assistance services according to the time of day

Time period	Services
From 12 to 4 am	359
From 4 to 8 am	289
From 8 am to 12 pm	783
From 12 to 4 pm	858
From 4 to 8 pm	851
From 8 pm to 12 am	693
Total	3,833

18

Response operations and services

2014 Management report

# Types of technical assistance

Туре	Services	%
Disconnecting alarms	106	2.77%
Building inspections and checks	410	10.70%
Making buildings safe	381	9.94%
Shoring	11	0.29%
Vehicle removal	60	1.57%
Collaborating with institutions	174	4.54%
Electricity supply and lighting	125	3.26%
Heavy rain and water leakages	1,078	28.12%
Reinforcing, removal of objects and trees	825	21.52%
Ladder services	5	0.12%
Inspecting and checking products	219	5.71%
Gas leaks	214	5.58%
Liquid spillages	31	0.81%
Road cleaning	14	0.37%
False alarm	180	4.70%
Total	3,833	100%

19

Response operations and services

2014 Management report

# Places where technical assistance was provided

Place	Subtotal			Total	
	Number	%	Number	%	
Buildings			2,760	72%	
Dwellings	2,283	59.56%			
Public residential	38	0.99%			
Administrative	84	2.19%			
Medical	16	0.42%			
Bars, restaurants and meeting venues	94	2.45%			
Educational	49	1.28%			
Commercial buildings	123	3.21%			
Garages and car parks	73	1.90%			
Roads, streets	935	24.39%	935	24.39%	
Misc			138	3.61%	
Construction sites	19	0.50%			
Industrial sites and warehouses	41	1.07%			
Railway facilities	5	0.13%			
Building plots	42	1.11%			
Woodland	13	0.34%			
Beaches, jetties, sea, rivers and lakes	18	0.47%			
Total			3,833	100%	

20

Response operations and services

2014 Management report

# Number of technical assistance services per district

District	Services	%
Ciutat Vella	459	12.06%
l'Eixample	686	18.02%
Sants-Montjuïc	503	13.22%
les Corts	147	3.86%
Sarrià - Sant Gervasi	368	9.67%
Gràcia	288	7.57%
Horta-Guinardó	330	8.67%
Nou Barris	255	6.70%
Sant Andreu	280	7.36%
Sant Martí	490	12.87%
Total	3,806	100%

<sup>\* 27</sup> outside the city boundaries

21

Response operations and services

2014 Management report



# 2 Main operations

MONTJUÏC CABLE CAR

#### On the afternoon of 1 January the Fire Service was called to deal with a breakdown in the transmission system of the Montjuïc Cable Car, which had stopped with 70 people trapped inside 15 cabins.

For this operation, which received a lot of publicity in the media, we established three action sectors, working to get people out of the cable car with the aid of an aerial ladder truck while simultaneously getting into position to move the cable.

Eleven Service vehicles were used in this operation, which lasted two hours and resulted in all the people being rescued without incident.

#### FLAT FIRE. C/ PROVENÇA 374



A fire occurred at C/ Provença, 374 on 7 January. The cause is not known but when firefighters arrived the balcony was ablaze.

The gas supply to the property was cut off and firefighters attacked the fire with two water lines and an aerial ladder, to protect the upper floors.

The second floor was severely damaged and one of the occupants died. A structural check of the property showed it was not necessary to evacuate the building.

#### Main operations

2014 Management report

#### FLAT FIRES IN SANT ADRIÀ DEL BESÓS

On **17 January** the Catalan Fire Service requested the help of the Barcelona Fire Service to put out a fire in the neighbouring city of **Sant Adrià del Besós.** In fact, there were two simultaneous flat fires in a narrow street, attended by three fire engines, two ladder trucks, an ambulance and the vehicles of the Sector Chief and Duty Chief, who were both present at the scene.

It was a powerful blaze and access was difficult.

A lot of people were attended to by medical services but two others, aged 70 and 90, died. Two flats (on the 3rd and 7th floors) were totally destroyed, the stairs were seriously damaged, the lift was unusable and the doors of both flats were charred.

#### INCIDENT AT AN ELECTRICAL SUBSTATION



On **8 March** Fecsa-Endesa reported a fire at an electrical substation on **C/Vilà i Vilà**, which left 38,000 people without electricity.

It was caused by short circuit in a three-storey building where workers were carrying out maintenance work.

Fans were installed to ventilate the premises and allow the power cut to be repaired a few hours later.

As a result of this incident, the Municipal Basic Emergency Plan went on alert.

25

# Main operations

2014 Management report

#### CHLORINE LEAK AT HOTEL MIRAMAR

**Hotel Miramar** requested the assistance of firefighters on **9 May** when a discharge of a chemical irritant was spotted near the hotel swimming pool.

The area of the leak was cordoned off and checked before the spillage, apparently caused by improper handling of the chemical products involved in the treatment process, was cleared up.

Three people were affected by the chlorine and attended to by the medical services.

#### GAS LEAK ON PORTAL DE L'ÀNGEL

# Main operations

2014 Management report

Barcelona Fire Service



On 28 May firefighters dealt with a gas leak outside C/ Duran i Bas, 5.

Work that was being carried out on the sewer pipes had inadvertently split a low-pressure gas pipe, producing a leak that affected the neighbouring buildings and seeped into the sewers.

The buildings closest to the leak were evacuated and a safety perimeter was established that affected Pl. Carles Pi i Sunyer and part of Av. Portal de l'Angel.

Once the leak had been plugged and we had ensured there was no longer any danger in the atmosphere, the operation was completed and access was allowed to all the buildings.

#### SALÓ DEL TINELL INSPECTION

On **2 June** firefighters were called out to inspect a buttress at the **Saló del Tinell in Plaça del Rei.** One of the outside buttresses supporting the arches forming the interior structure was affected by a break in reinforcements carried out pre-

viously. A steel-bar support installed 30 years ago had snapped, damaging the arch buttress. The area was cordoned off and the Saló's management called out their technical services to carry out the repairs.

#### **EVACUATION OF THE 080 CALL CENTRE**

On 11 June, SPEIS went to deal with smoke on the floor of an office block at C/ Llacuna, 56-58, where Konecta, the company that runs the 080/092 emergency call service, has its centre. The building was evacuated as a preventive measure, so the service had to be dis-

connected and replaced by the backup service on C/ Lleida, which worked perfectly until the situation returned to normal. Disconnection drills are carried out every month as a preventive measure, so this operation went ahead without any effect on the service.

#### SHIP LEAKING WATER

Between 2 and 5 July the Isabel del Mar, docked at the Moll de Ponent, suffered a large leakage of water through its stern. The water filled various compartments and the ship listed towards the stern.

This operation lasted 3 days, during which the water was pumped out and the source of the leak detected. Once this was finished, the Port authorities and the ship's owners took charge.

#### **WOODLAND FIRE ON CAMÍ DE SANT LLÀTZER**

On **9** August firefighters were alerted by a column of smoke rising on the side of Carretera Alta de les Roquetes where it meets **Camí de Sant Llàtzer.** Four mountain fire engines provided 4 lines with 25 mm hoses, allowing the perimeter to be secured and the fire to be brought under control. The burnt area was then cooled and checked for hot points with the aid of a thermal imaging camera. Two heavy-duty pumpers and a fire service ambulance also took part, along with Guàrdia Urbana and Mossos police officers and the Sant Cugat Forest Defence Group (ADF). In all, some 3,000 m2 of scrubland was burnt.



27

Main operations

2014 Management report

#### Main operations

2014 Management report

Barcelona Fire Service

#### FIRE AT AN INDUSTRIAL BUILDING IN THE ZONA FRANCA

On 18 August we dealt with a fire on Carrer D in a 3,500 m2 building used for sorting waste from building work. The building and its contents were burnt as a result of a spark from some soldering equipment. After the building had been ventilated, a structural inspection was carried out which showed no signs of possible collapse, so the head of the

company was authorised to go into the building and remove the mountains of material inside with a bulldozer.

Six fire engines and two ladder trucks took part in this operation, which lasted 8 hours.

#### FIRE IN A TALL BUILDING

Also on **18 August** we dealt with a fire in a tall building at **Pg Garcia Faria**, **81** that had been declared on the 24th floor and extended to the floor above, the top floor of the building.

Teams were set up for each of the floors affected and they tackled the fire with the hydrants in the building, while another team set up the installation for the building's dry hydrant.

Owing to the high temperature, glass panes in the enclosure were broken and some glass fell onto the street. Once the fire was out, firefighters proceeded to carry out the difficult work of drying the facade, with 3 flats evacuated.

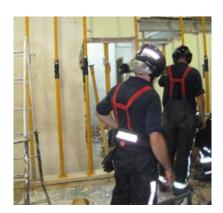


#### FIRE ON THE 4TH FLOOR OF A CAR PARK

On **27 August** fire broke out in the 4-floor underground car park at **C/ Cardener, 12.** With 25 mm lines and the aid of a thermal imaging camera, two vehicles on fire were located on the bottom floor and the fire was put out. Vehicle access and the subsequent ventilation of the car park proved very difficult due to its layout.

#### STRUCTURAL PATHOLOGIES IN A RESIDENTIAL BUILDING

On 22 September firefighters were called out to C/ Santa Rosalia, 91 by the District Technical Services, because an inspection had revealed structural deficiencies. Our inspection revealed structural pathologies, caused by the action of water on the load-bearing walls and various joists, that required action. Once the deficiencies had been detected and the problem diagnosed, the walls were shored up with planks and props, with part of the property evacuated.



#### FIRE AT THE MELIA SKY HOTEL



On **24 September**, a fire broke out on the fifth floor of the Melia Sky Hotel at **C/Pere IV**, **217**, and the smoke penetrated the other floors up to the 28th.

Two teams began the search for the focus by taking each of the specially protected staircases and located it on the 5th floor in the spa facilities. They then began the work of putting out the fire, which was complicat-

ed by the fire's high intensity. An area of 80 m2 was burnt and the rest affected by the smoke and high temperatures. In all, 180 people had to be put up in other hotels.

#### **COLLAPSE OF A FUNICULAR RETAINING WALL**

On 1 October, a large retaining wall maintaining a difference in level of 12 metres between the El Xalet restaurant on Montjuïc and the Funicular tracks below, partially collapsed. It fell onto the tracks, taking part of the earth it was holding up with it. The build-up of earth and the remains of the wall meant the Funicular service had to be suspended.

After analysing the state of the slope and studying the plans provided by the owner, it was decided to seal off the part of the restaurant bordering on the slope, which was the extension added in 2004.

29

# Main operations

2014 Management report

# Main operations

2014 Management report

Barcelona Fire Service

#### **TOXIC CHLORINE CLOUD**

On **27 October**, firefighters were called out to deal with a poisonous cloud of chlorine on the 16th floor of the Diagonal Zero Hotel, **Pl. Llevant s/n.** It was caused by chlorine accidentally mixing with hydrochloric acid that had got into the swimming pool. Three members of the maintenance staff were affected by the cloud and taken to hospital by an SEM ambulance. Once the leak had been plugged, a number of measurements were taken so the area could be ventilated and kept safe.



#### GAS EXPLOSION ON CARRER BOU DE SANT PERE

On 11 November, the Guàrdia Urbana called SPEIS out to an explosion with victims at C/ Bou de Sant Pere, 12. The explosion, in flat 4t 1a, caused it to collapse along with 5è 1a. The staircase was partially affected, as were the top flats in the building concerned and the adjacent one on C/ Argenter.

Fire-fighters got in quickly through the staircase of the building itself and the two either side, and cut off the gas, electricity and water supply in all three. They were able to get into the flat affected from the roof terraces.

Four people were injured in the incident, 2 of whom were taken to hospital, and 29 people were attended to by the Emergency Centre (CUESB). Four buildings were evacuated in all, three on C/Bou de Sant Pere and one on C/Argenter.

#### FIRE ON CARRER JAUME GIRALT

On **16 December** SPEIS responded to a fire raging in a ground-floor flat at **C/ Jaume Giralt, 55.** It spread to the neighbours' stairs and then the interior courtyard linking the block to three other properties, the Musik Boutique Hotel, St. Pere Més Baix, 62 and a clothes warehouse. The fire was put out and three people in the flat were rescued.



# 16 RESIDENTS EVACUATED BECAUSE OF A FIRE



On 21 December a fire broke out on the second floor of a building on C/ Sant Vicenç that ended up damaging the whole building. Two flats on the second floor were totally burnt and the rest of the building was affected by the fire and the water to put it out. Some 16 residents were evacuated and 3 were taken to hospital suffering from the effects of inhaling smoke. Social Services rehoused 6 people. SPEIS put the fire out and then cooled and ventilated the flats worst affected.

31

Main operations

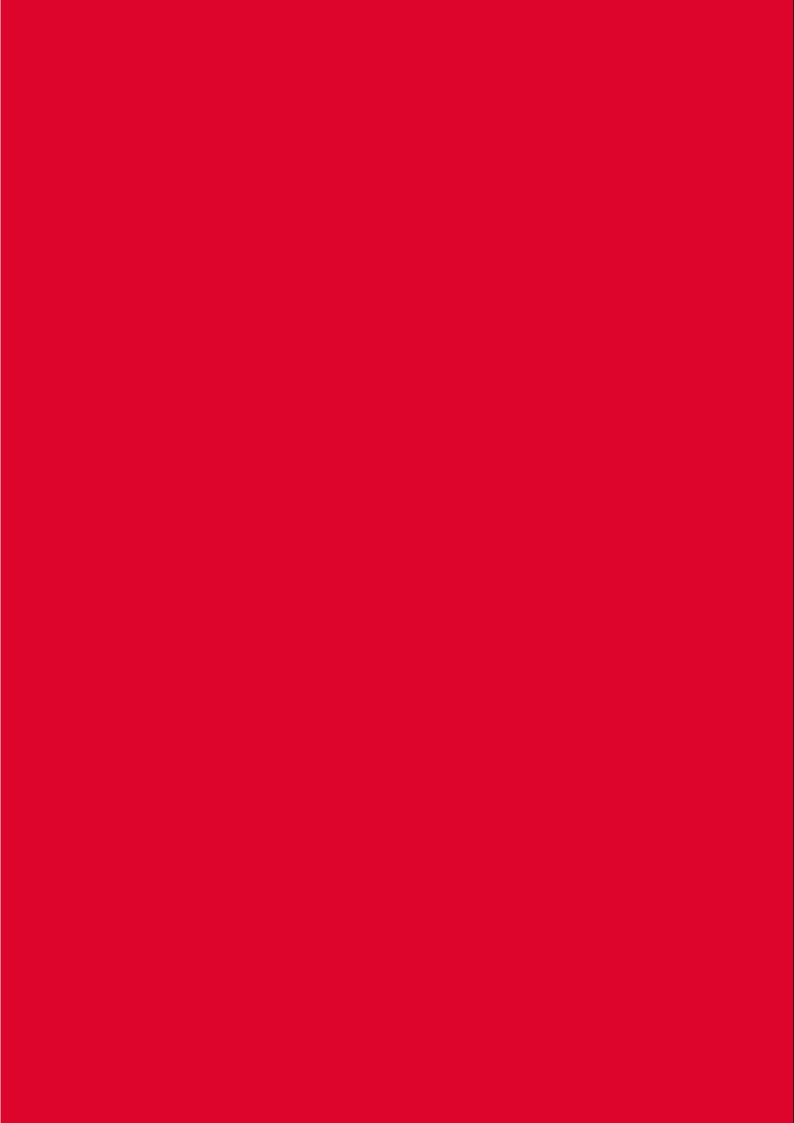
2014 Management report

Barcelona Fire Service

#### FIRE AT THE PUBLIC PROSECUTOR'S OFFICE

On **17 December** firefighters were called out to a big column of smoke billowing out of the building at **C/Pau Claris**, **158-160**, the headquarters of the Chief Prosecutor's Office of Catalonia, where air-conditioning equipment was burnt. The fire was extinguished with a water line and the aid of breathing equipment. There was no damage to the building but it receive a lot of coverage in the media.

The occupants left the building temporarily, in line with the procedure set out in the Urban Development Plan (PAU).



# Our work starts with prevention

#### **OUR WORK STARTS WITH PREVENTION**

# 3.1 CIVIL PROTECTION AND PREVENTION



Civil Protection and Prevention come under the responsibility of the Fire Service. They have a direct bearing on the safety of our citizens and we carry them out to reduce the risk associated with Barcelona Fire Service responses. The change in the response indicators tells us that preventive checks on new buildings and monitoring and controlling the introduction of new activities are having the desired effect of reducing the risk of fire.

For the Barcelona Fire Service, Prevention means maintaining a constant balance between regulatory and legal powers. The former enable us to regulate the risk of activities

in an urban environment like ours and the latter to assess and control at all times new-build projects, alterations and extensions, as well as the start-up of new activities.

The contribution of Civil Protection and Fire Prevention to the integrated emergency management model is vital, because they are the cornerstone of a balanced safety system.

There are various working frameworks that determine safety levels today: Barcelona's capital status and its influence in the immediate surrounding area, the analysis of individual and social risk, and the changing dynamics of the social and economic environment. But the main determining factor of all of SPEIS work are the citizens of Barcelona. They are the main reason for the model, which is designed to respond to their needs and guarantee their rights. This is the line our development and operations must follow.

# starts with prevention

Our work

Management report

Barcelona Fire Service

# 3.2 CIVIL PROTECTION PLANNING

Civil Protection in Barcelona has completed a stage noted for its broad planning approach, suitable for detecting risks in the city and a level of implementation that has tried to reproduce the City Council's cross-cutting approach to emergencies.

In 2014 a start was made on simplifying municipal emergency planning by integrating the Specific Plans into the Basic Municipal Emergency Plan.

Improved risk analysis using new IT software to simulate people's behaviour at mass events and simulated toxic leaks for a better evaluation of effects on the population have been giving us a more specialised view improved better information, so we can coordinate resources, when our plans go into action, and receive the necessary support for taking decisions.

34

3.3 SERVICES AND OPERATIONS IN THE AREAS OF REGULATION AND PREVENTION DEVELOPED IN 2014

Advice	2,474
■ Visits arranged	755
■ Telephone queries	1,719
Reports for activity, works and events planning	839
<ul> <li>Project planning reports</li> </ul>	605
Projects reported to the Environmental Committee	193
<ul> <li>Event reports: concerts, street fireworks, firework displays, pyrotechnics, etc.</li> </ul>	71
revention inspections	262
<ul> <li>Inspections of pyrotechnic and bonfire projects</li> </ul>	118
<ul> <li>Preliminary checks supervised by the Environmental Committee</li> <li>Inspections at the request of the Operations Division, the City Authority (districts, managers, Irregular Settlements Plan, etc.,)</li> </ul>	109
and the Catalan Regional Government	35
mergency plans advised	8
Practice drills attended	3
Prevention awareness raising	1,144

Number of people from various community groups schools, elderly centres, residents' groups and associations, etc. who have taken part in prevention awareness-raising events





33

Our work starts with prevention

2014 Management report



# Planning Division

#### PLANNING DIVISION

There was a change in the SPEIS management structure in 2014, with the addition of the Technical Support Unit and the Procedures Unit to the Planning Division.

#### Planning Division

38

2014 Management report

Barcelona Fire Service



# 4.1 TECHNICAL SUPPORT

The last year saw maintenance work carried out on all current items (vehicles, material, individual protection equipment (EPIs), etc.) as well as new investment projects for new acquisitions, changes and alterations.

New projects that should be noted include:

A new model, light-duty urban fire engine, which went into service during the year. The B125 at the start of the year, the B126, B127, B128 and B129 in November.

Acquisition of 4 rescue trucks to replace the C4, C5, C6 and C7 and enter into service in the course of 2015, with hydraulic tools and other material acquired separately as accessories for these vehicles.

Acquisition of a chemical risk container, to enter into service in 2016.

Acquisition of 2 staff-transporting vans for the Training Department and for logistics in the event of an operational need to move staff.

Conversion of an S21 ambulance withdrawn from service into a firefighters' command centre (CCB).

Entry into service of 12 crew/material carriers, 5 logistics vehicles and 4 command vehicles.

Repainting of ladder trucks and some of the fire engines, with new lettering added.

Overhaul of B407 and B408 appliances, given new stowage and made ready for service.

Renovation of the following old vehicles and equipment: the hipofurgó - a horse-drawn cart for transporting firemen - the wooden ladder of the Delahaye 59E, the wheels of the Delahaye 84PS and the Ford BT7.

BOMBERS



.

#### Planning Division

2014 Management report

> Barcelona Fire Service

Acquisition of new portable transceivers and accessories to replace all those currently in service.

Acquisition of material for subaqua activities: dry suits, subaqua communication equipment and individual torches.

Acquisition of rescue height and vertical equipment, to implement a new procedure that changes current operational methods: (a new safety belt has been designed that can be turned into a chest harness by adding a top. So far these have been acquired for the new intake of firefighters, in preparation for the complete change taking place over the coming years).

Acquisition of other new equipment, such as diffusers for large monitors, woodland diffusers, the fire service campaign marquee, shoring equipment for heavy loads, LED torches, etc.

Maintenance contracts were put out to tender for cleaning and checking individual protection equipment (EPIs), as well as independent breathing equipment (ERAs), chemical suits and helmets.

As regards vehicle, equipment and tool maintenance, note that two accidents led to the need for significant repairs to the BRP B212, the AEA E16 ladder and the AEA E15 basket.

Last year also saw preventive maintenance carried out on all the lifting gear, the 2 km of 150 mm hoses and the hydraulic extrication tools.

As for the EPIs, note the acquisition of the EPIs for the 60 new firefighters, in addition to the maintenance and repositioning all current equipment.

#### 40

#### Planning Division

2014 Management report

Barcelona Fire Service

# 4.2 PROCEDURES

We are continuing the work of previous years and drafting the procedures agreed at the Management Committee. These are based on a list of opinions gathered from fire station commanders and set out a number of priorities for drafting and/or revising.

The work of the Procedures Unit has three strategic goals:

- Ensuring the new procedures have a multimedia flash format and summary file.
- Equipping procedures agreed in previous years with multimedia support and incorporating explanatory videos in the base documents.
- Introducing manoeuvre formats in procedure descriptions relating to the manoeuvres carried out in operational prevention at fire stations.

#### Procedures approved or revised in 2014

#### PROCOP 2.03: "Traffic accidents: Freeing trapped people"

In line with the goal of making it easier to understand the Operational Procedures and making them more dynamic tools, a summary file and multimedia flash have been installed, with 3 videos that explain some of the manoeuvres.

#### PROCOP 3.04: "Loading and unloading dangerous materials at the Port"

We have adapted to the new system for receiving calls from the Port when loading and unloading dangerous materials, its relationship with the telephone platform and the Mycelium application methodology. The summary file has also been incorporated in the base documents.

#### PROCOP 3.03: "Cutting down trees"

The revised sections, 5.1 and 5.2, incorporating the possibility of using the light helmet, glasses and hearing protection have been approved. These have been introduced into the PROCCOP document, as well as the summary file and the multimedia flash support.

#### PROCOP 4.09: "Responses involving the urban electricity grid"

The new operational procedure for electricity grid responses has been approved. This includes the systematic response in solar panels and also incorporates the multimedia flash and file.

#### PROCOP 4.04: "Response control"

This procedure has been revised, adapting it as required to the new control table already available.

#### PROCOP 4.07: "Operational Procedure for Preventing Falls from Height"

The revised procedure, which includes the application of high work systems in SPEIS responses, has been approved with the aim of improving the quality of the service and

ensuring maximum safety for firefighters and possible victims. It also takes into account the new material acquired by the Fire Service and the new rescue bag. The response method for using a sliding ladder will now be included in the ladder manual in the base documents.



#### Planning Division

2014 Management report

Barcelona Fire Service

#### New working groups set up

The following working groups were set up in 2014 to work on various procedures:

#### PROCOP 3.01. "Response involving dangerous materials" (Chemical Risk)

The aim of this group is to:

- Define SPEIS general lines of organisation in responses involving a chemical risk with dangerous materials. Identification and control of risks, response techniques, etc.
- Determine the necessary safety measures and conditions for those taking part in an response.
- Define the logistics, type and method of response for the various risk situations.
- Establish the mechanisms for coordination between all the emergency response services and the medical services.

#### Planning Division

2014 Management report

Barcelona Fire Service

#### Procedures for Indoor Electrical Risks and Gas Leaks

The aims of these two procedures are to:

- Define SPEIS general lines of organisation in these kinds of responses. Identification and control of risks, working methods, incident evolution, response techniques, etc.
- Determine the necessary safety conditions for these: staff control, communications, relief, etc.
- Anticipate the logistical side of the response, adapted to our material resources and the Barcelona Model.
- Establish the mechanisms for coordination between the utility companies, emergency services and medical services intervening, where appropriate.

#### Situation with other procedures that are well advanced

#### **Communications**

Procedure complete and has the go-ahead from the Health and Safety Committee, which will amend Operational Information and keep two complementary procedures in force: what we communicate and how we communicate. The summary file is also done.

This procedure, which rearranges all the transmission channels and identifications, and is adopted to the ENSOSP response model, coincides with the change in radio transmission equipment. This means it will be approved in two stages, already agreed with the Health and Safety Committee.

#### Forest and woodland fires

Very advanced and expected to be finalised before being completed in the first six months of 2015, before the summer period. Currently looking for and incorporating possible similar features in the Catalan Fire Service procedure. The procedure for the training planned for 2015 has already been approved. We need to decide who will receive this training.



#### Suicide attempts

Procedure drawn up and passed to the Health and Safety Committee and risk prevention expert to put forward possible amendments and contributions.

#### **Animal rescues**

Revised procedure drawn up, only pending an agreement with the Catalan Fire Service so we can collaborate with their Veterinary Emergency Group. Once we have that, we will be able to distribute it to the Health and Safety Committee.

#### **Ventilation**

Procedure well advanced. Our aim is to have it ready before the end of the year. This is the procedure with the most audiovisual material out of all the ones we have done so far and will include fire station manoeuvres. It is practically finished.

#### Residential fires

Procedure drawn up from three response perspectives: aims, sectors and tasks. It includes an information leaflet for those affected and guidelines for the arrival of vehicles at the scene of the fire.

#### Other procedures at an earlier stage

#### Residence accessibility

We are working on it and already have a first draft.

#### **Checking vehicles**

The draft is done and the files for each type of vehicle are being prepared. It includes the use of the Cooper system in the current procedure and IT tools that did not exist when that was drawn up.

#### Fire in underground car parks

At the drafting stage.

#### Lifts

The idea is to include the operation of new installations in the procedure. This will include the way information is gathered and the exit files.

#### Vehicle location during responses

Procedure put forward as a multi-service project. The aim is to create common internal instructions for the various emergency and public safety services, to organise the way their vehicles occupy road space, regardless of what order they arrive in at the scene of the emergency.

#### **Confined spaces**

Procedure that will determine how to work in these types of spaces.



43

Planning Division

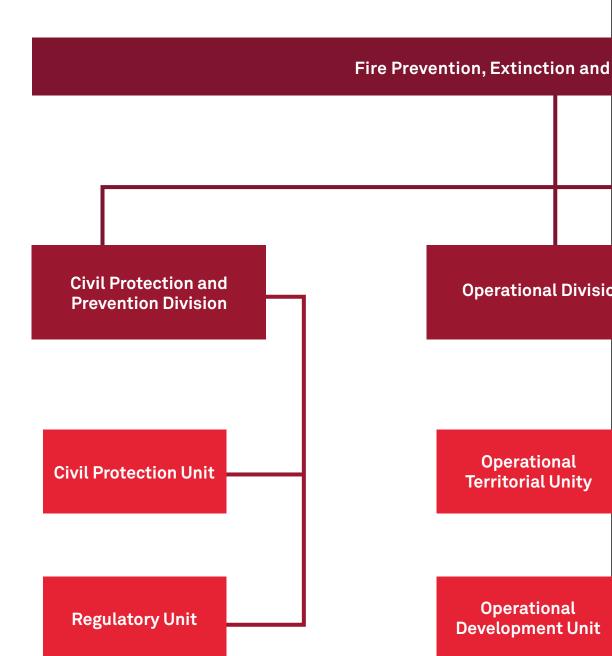
2014 Management report



# 5 Our people

#### 5. OUR PEOPLE

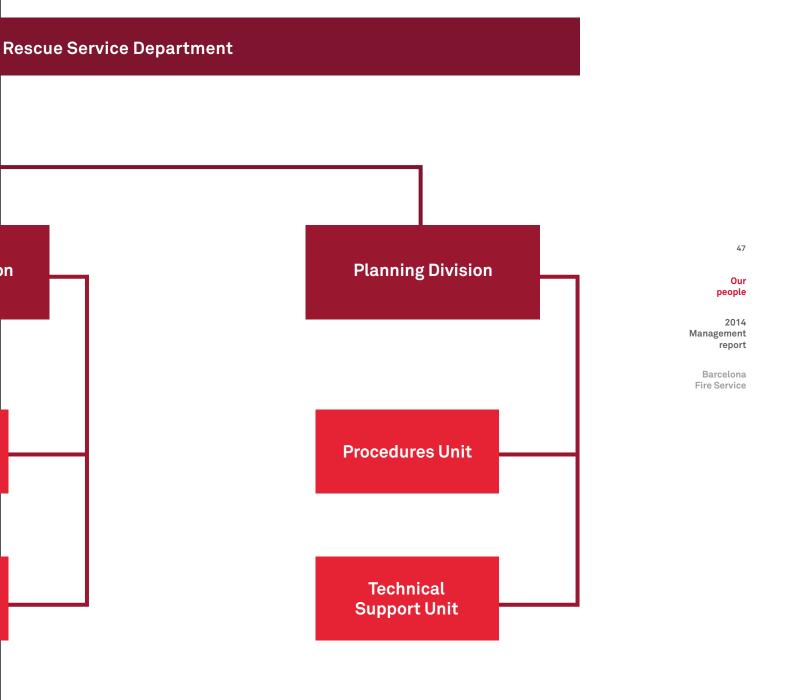
#### 5.1 ORGANISATION CHART



46

#### Our people

2014 Management report



## **SPEIS** staff

Staff	
Operational staff	585
Non-operational staff	21
Total	606

# Breakdown according to professional categories

Operational staff	
Senior officers	8
Middle-rank officers	14
Medical staff	17
Sub-officers	12
Sergeants	28
Corporals	62
Fire-fighters	444
Total	585

Non-operational staff	
Senior staff	4
Managers	1
Administrative staff	7
Administrative assistants/support staff	2
Nursing auxiliaries	6
Total	21

48

Our people

2014 Management report

	Total	Operational staff	Non-operational staff
Management	5	2	3
Operations Division	573	564	9
Prevention and Civil Protection Division	17	8	9
Others*	1	1	0
Planning Division	10	10	0
Total	606	585	21

<sup>\*</sup> There is 1 member of the operational staff who works in the Logistics and Infrastructures Department

# Breakdown by gender

	Men	%	Women	%
Operational staff	571	97.61%	14	2.39%
Non-operational staff	12	57.14%	9	42.86%
Total (632)	583	96.20%	23	3.80%

# Breakdown by age

Age	Operational staff	%	Non-operational staff	%
20-24	1	0.17%	0	0.00%
25-29	10	1.71%	0	0.00%
30-34	87	14.87%	0	0.00%
35-39	181	30.94%	2	9.52%
40-44	63	10.77%	1	4.76%
45-49	23	3.93%	5	23.81%
50-54	66	11.28%	4	19.05%
55-59	135	23.08%	5	23.81%
60 and over	19	3.25%	4	19.05%
Total	585	100.00%	21	100.00%
Average age	44.24		51.57	

49

Our people

2014 Management report

#### 5.2 TRAINING

SPEIS organised 58 training operations with 284 sessions for the 3,772 attendees, who received a total 23,127 hours of training.

The breakdown of the training was as follows:

- Ongoing Training: 18 training operations, 145 sessions and 1,715 attendees.
- Specific Training: 40 training operations, 139 sessions and 2,057 attendees.
- Training for organisations: 24 sessions and 214 participants.

50

#### Our people

2014 Management report



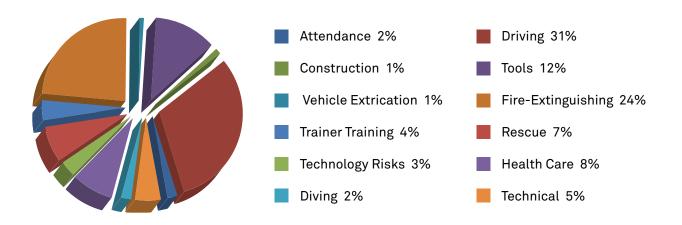
The Specific Training was in response to the following needs:

Areas	Number of training actions	Number of sessions	Hours	Number of attendees
Technical assistance	1	3	27	30
Driving	6	43	122	695
Construction	1	1	21	19
Tools	1	16	81	370
Extrication	1	1	24	19
Extinguishing fires	5	34	254	540
Training for trainers	1	6	102	88
Rescue	4	10	184	102
Technological risks	4	4	74	63
Medical	8	11	127	69
Diving	2	3	48	29
Technical	4	7	97	33

Our people 2014 Management report Barcelona Fire Service

The percentage breakdown was:

# Distribution according to edition



## Training for companies and public bodies

Fire Prevention training for companies and public bodies was started up again, after several years of inactivity. As a result, public and private organisations sent 214 people for training which brought in €33,596.72.

#### Highlights:

• Ongoing training, which started at 24 hours a year for firefighters and corporals, was increased to 48 hours in 2014, so they could practise more skills and master their profession better.

The contents worked on were the following:

- Extinguishing fires
- Driving vehicles
- Using a rescue bag
- Orientation in very poor visibility
- Responses with a chemical risk
- Responses in an urban rescue
- Responses in buildings

52

Our people

2014 Management report





2014 Management report

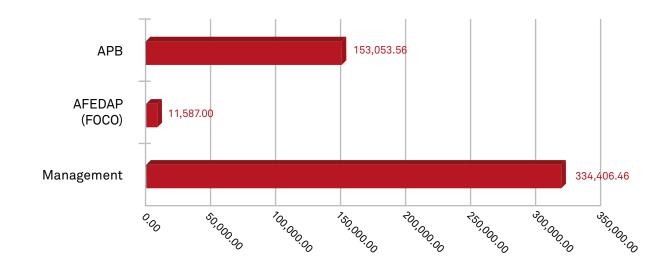
Barcelona Fire Service



- Officer training in 2014 was on advanced knowledge of chemical risks and applying a new response methodology. Sergeants also received leadership training.
- Collaboration with the Logistics and Infrastructures Department has made it possible to bring new equipment into the Zona Franca fire station: two prefabricated units that allow firefighters to carry out practice procedures in spaces similar to a building, as well as finding their bearings in conditions of very poor visibility, and some hydrocarbon and pressurised gas tank simulators, which allow them to work on dangerous materials. The installation of gas and electricity control panels, as used by the various utility providers, has also been completed.

Finally, some emergency simulation areas have been set up at the fire station so officers can be given training in handling big emergencies. These classrooms have allowed those who received training at ENSOSP last year to practise what they learned and pass that down the SPEIS line of command.

#### Human capital investment was €499,047.02



5.3 SELECTION

The selection processes held allowed the following incorporations into the Service:

- 60 firefighters, who will soon start their basic training at the Fire-fighters and Civil Protection School of the Public Safety Institute of Catalonia (ISPC).
- Two auxiliary nurses for the Fire Service. Six more need to be taken on in a second stage.
- Six Support 4 staff for the Emergency Management Centre.
- One Support 2 staff. For the SPEIS Operational Technical Material Group.

54

Our people

2014 Management report

#### 5.4

#### 5.4 PREVENTION, HEALTH AND SAFETY

The following activities were carried out in 2014:

- Vaccination campaigns for flu, tetanus and hepatitis B. 55 firefighters were vaccinated.
- Medical check-ups. 199 check-ups were carried out.
- Control of workplace accidents. Serious cases notified, investigated in collaboration with the Risk Prevention service and treatment monitored at the Mútua Universal.
- Control of absenteeism in coordination with the City Council Medical Inspection Service and, in PAMEM cases, with their inspectors.
- Workplace readjustments for people finding themselves temporarily incapable of working, to help them to return to work. Seven of these were carried out.
- Coordination of the selection process medical aptitude tests, especially those of the new SPEIS intakes.
- PRE-B. Coordination of the specific Mental Health Prevention Programme for SPEIS staff, set up in 2006. This programme also includes the psycho-technical assessment in the selection tests, training courses for new firefighters and ongoing training on healthy habits for firefighters. Two new firefighters have joined this programme.

55

Our people

2014 Management report

2014 Management Report Barcelona Fire Service