

# FIRE DEPARTMENT ANNUAL REPORT 2024







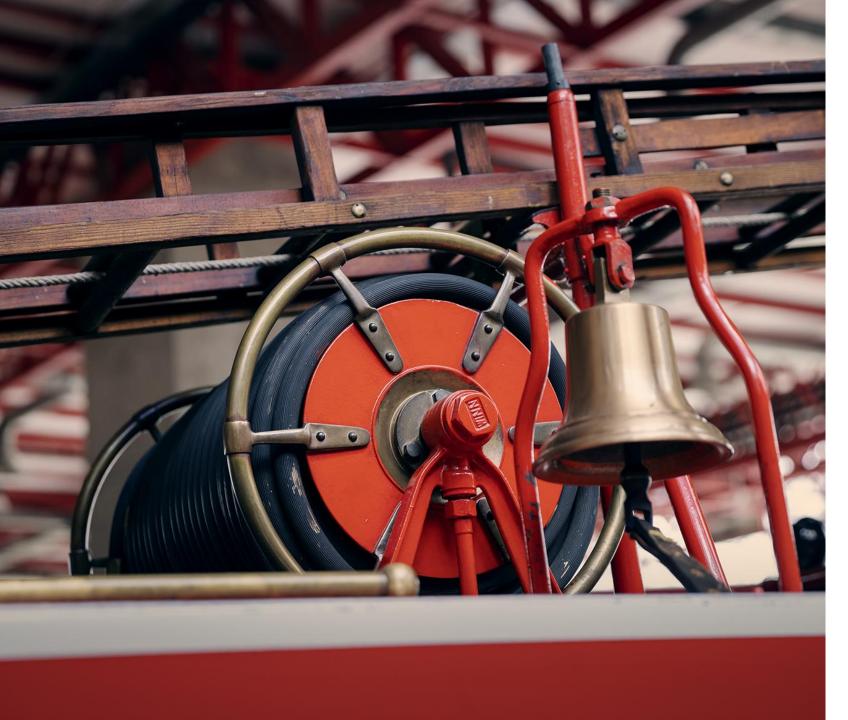
vicealcaldía, portavoz, seguridad y emergencias

MADRID

# FIRE DEPARTMENT HEADQUARTERS

**General Directorate of Fire Services** 





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# "Your positive attitude and dedication inspire us all. Thank you for being part of our team. On this special occasion, I

would like to express my sincere thanks for your tireless

efforts."

# **Presentation (Fire Chief)**

The Madrid Fire Brigade is a municipal service with more than four centuries of commitment to our city. Year after year we overcome thousands of interventions efficiently and effectively, thanks to the support of our citizens, our administration and our constant commitment.

Throughout the year 2024, we have addressed many fronts, among them:

- ... continuous inspection of buildings, projects and self-protection plans,
- ... presence and opinion in the control of high-traffic activities,
- ... constant contact with managers of critical and complex facilities,
- ... updating of fire stations and fleet renewal,
- ... training and operational preparation for new social demands,
- ... closer contact with citizens, promoting their training in self-protection

In order to achieve all these achievements, the work carried out by each of the Fire Brigade Inspectorates can be described as extraordinary.

Our citizens and our Corporation have appreciated our performance of our duty, recognizing us in the Quality of Life survey of the Council as the best rated service of the City Council, with 8.2 out of 10. This fills us with great satisfaction and gives us strength to continue working with commitment and dedication to achieve excellence.

We have been doing all this activity constantly, but the most important thing for this command is how and why we do it. The attitude has not changed in the centuries of history of our Fire Brigade. The humane treatment of those who suffer unhappy moments and need our support has not changed. That makes us strong and our talent extraordinary.

In my farewell year, I would like to thank you all, and ...

... on to the next year!

RAFAEL FERRÁNDIZ ALBENDEA



# **Presentation (vocation)**

We, Madrid City Council fire fighters, are a high vocation sense collective. Our values come from a very long tradition heritage to serve our citizens (since year 1577). We dedicate to a wide mission, that lay mainly on preventing and extinguishing fires, but also includes a great response capability in emergencies and in those risky situations for people, animals and goods.

The Fire Department is composed of professional personnel, highly prepared, with a good balance between specialization and versatility, that give value to our members capability and their real experience in fire for promotion purposes to become our officers.

It is our task: anticipating catastrophes, being plainly aware of the effect of a painstaking prevention work in the activities and facilities of our city, and it results in a higher safety for our neighbours and the economical activities.

With that aim, we keep in continuous contact with the managers of critical facilities and certain special characteristics buildings. It let us acquaint with them, their possible risks and their safety systems. This big investment of our resources, very specialized experts and attitudes we try to promote, reduce the disasters number and their consequences, generating important savings that are difficult to assess.





# **Efficacy and Capacity**

Our work methodology is a value in our Department personality, and has a checked efficacy, using an special "first attack convoy" configuration, very powerful, that let us face at the same time the extinguishing, rescue and risk control tasks.

Due to the significant relationship between the pass of time and the intervention success, our first rule is "arriving as fast as we could with the right means".

From this City Council, we highlight too the big effort we do to get back to normal in the action zone, not only doing our normal intervention but also going beyond. We do not only protect people and goods, but also restore the life and commercial activity in the district.

The individual and collective technical means we use are the result of a very careful selection by an expert technical committee. They increase the efficacy and reduce significantly our accident rate. It has become the reference for many other fire departments.

Furthermore, due to the previous evaluation and our response capability dimension, we can increase extremely the presence of forces in a great dimension disaster in a coordinate and effective way.

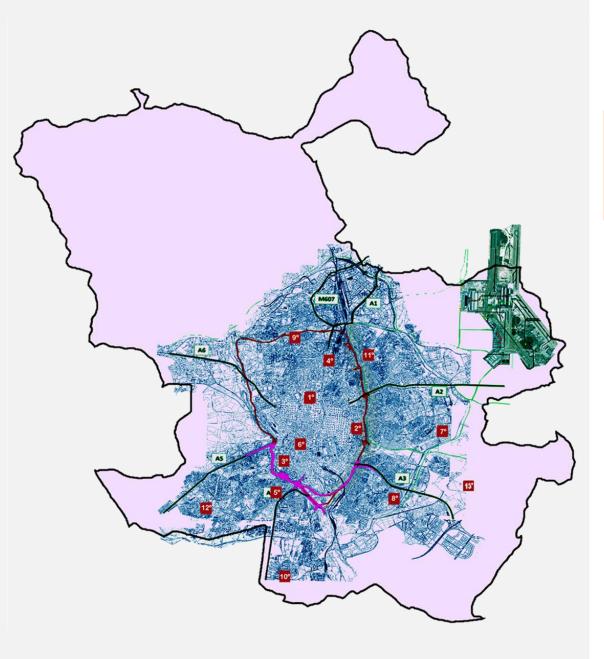


# **Coordination and** Citizenship

The Fire Department coordinates perfectly with the other security and emergency services with which it works in the city, not only in complex incidents, but also by participating in preparations for all kinds of presences, as well as in the appropriate specialised forums at municipal, regional and national level. As part of this coordination, advisory, training and awareness-raising tasks are also carried out for various professional groups that result in the improvement of the actions and the service provided to the public.

On the other hand, the integration of the Fire Department into Madrid society is total, as they are our main allies and our raison d'être. This makes us one of the most highly valued municipal services. Numerous activities are carried out with all groups to raise awareness and educate about prevention: through social networks and the website, as well as directly at events, conferences, hospitals, visits to the Fire Department Museum, etc. We try to reach all sectors of the population through campaigns and our regular educational activities, especially in the case of elderly people and children.





### Our scene:

# Madrid is too much Madrid

3.46 M registered inhabitantes (5,504 inhab/km²)

+ 1.4 M floating population

+10 M tourists/year

- ✓ 62.40 Km<sup>2</sup> Green Zones (205 Parks) / 51.75 Km<sup>2</sup> Regional Park
- ✓ 6 Electricity Corridors / Pipelines / Gas Pipelines / +150 km. underground GALLERIES
- ✓ 5,000 km. Collectors / 37 STORM STORAGE PONDS
- ✓ 2 AIRPORTS + 5 Heliports
- ✓ 2 Large RAILWAY STATIONS / 11 Hubs +11Intermodal Areas + Teleferic / Bus Station
- ✓ 225 km. RAILWAYS (9L/39E/+15T) / 250 km. UNDERGROUND (12L/283E) / 6.5 km. Tramway (3L/11E)
- ✓ 261 km. HIGHWAYS / +9,000 km. streets (348 structures) / +100 km. TUNNELS
- ✓ 16 Public HOSPITALS / 35 Private Hospitals-Clinics / 119 Health Centres / 19 Specialty Centres / +160 Old People's HOMES
- ✓ 8 Universities / 21 Laboratories / +1,700 Education Centres
- ✓ 85 MUSEUMS / 54 Libraries / 4 Convention Centres / 3 Theme Parks
- ✓ UNESCO Heritage (Pº Prado-Jardines Buen Retiro) / 182 Cultural Heritage Goods
- ✓ **+800 HOTELS** / +60 Theatres / +230 Cinemas/ +17,200 Hotel Establishments
- ✓ +35 Large COMMERCIAL CENTRES / +60 Public Car Parks
- ✓ 3 Corporative Cities (BBVA / REPSOL / Telefónica)
- √ 6 STADIUMS / 4 Multipurpose Venues / 74 Sports Centres / 47 Pavilions / 53 Covered Swimming Pools
- √ +550 Temples / 14 Cemeteries 7 Funeral Homes 2 Crematoriums
- ✓ 76 INDUSTRIAL ZONES> 2 Car Factories + 2 Aircraft Bases + 5 Train Bases
- ✓ Mercamadrid Logistics Platform
- √ Valdemingómez Technological Park
- ✓ Etc.





# **Management Evaluation**

2024

The city of Madrid increases its activity year after year, having its direct effect on the number of interventions. In the past year the figure increased moderately, by 1.95%. The work of prevention, carrying out inspections, reviewing projects, self-protection plans, drills and all the informative and awareness-raising work means that more and more properties and residents are reached, and is undoubtedly the key to this containment. The daily load is around 80 interventions, yet average response times have decreased by 7 seconds.

71 new team leaders have been recruited and the quality of the selection process has been strengthened by improving and adapting training. The administrative part of the Corps has also been reinforced with 14 new members, but even so, 49 personnel have been lost due to retirements this year.

With regard to logistics, Park 5 in Usera has been inaugurated, and the first phase of the Fire Logistics Centre has been completed and handed over. Phases 1 and 2 of the development of Fire Station 9 are also being completed and the refurbishment of the gymnasium in Station 1 has been completed too. The changing room has been renovated, with the light intervention and park suits, as well as the first steps towards the modernisation of part of the fleet of heavy vehicles. Efforts continued to be made to improve communications and management systems, which are essential to the Fire Department's operations.

Our public service vocation goes beyond the extension of the municipality of Madrid, participating mainly in the DANA crisis and in the continuous improvement, through training and drills of the European Civil Protection Mechanism.





### We, Fire Department, are working in the following lines:

- Improvement of the dynamic response system, to further adapt the means used in the interventions and the Emergency Management System (SIGEM) continues to be implemented as a computer support to facilitate the management of the emergency and its administrative part.
  - Recruitment of 36 new group leaders/drivers and 12 non-commissioned driver officers, as well as the recruitment of 15 sergeants and 12 group leaders for Technical Support.
- Finalise the competitions for 126 specialist firefighter and 68 specialist firefighter-driver posts, as well as 10 sergeant and 20 group leaderdriver posts.
- Strengthen and increase contingency plans for special coverage, critical infrastructures, high concentration of people, etc.
- Carrying out information campaigns that respond to emerging concerns for citizens, such as: electric batteries, photovoltaic energy or façade coverings.
- Tenders will be invited for the construction of the new Fire Station 14 in Vallecas and the renovation of equipment and furniture in various stations will be carried out.
- Supply of new 1st and 2nd intervention vehicles and other equipment.
- Improvement of management and organisational tools, with the acquisition of new computer licences.



# **About us**

Being a firefighter is above all a vocation of service to your neighbours. We experience the worst moments in the lives of many people, sometimes dramatic circumstances, which we overcome thanks to the passion we feel for our profession and the meticulous training we receive.

We are aware that it is a dangerous job, with accident figures comparable only to those of groups such as the Security Forces and Corps, in their most exposed specialities. Our involvement, training and material resources are the tools we need to face this reality.

On the other hand, it is an exciting job, with specialisation and management of unique equipment, with a high level of comradeship and it is the most highly valued of all public services by the community, year after year.



# What we do?

We take part in disasters, mainly fires and rescues, but also...

We work in floods, tree falls, buildings at risk of collapse or detachments, victim location, debris removal, in crowded facilities, with dangerous animals, rescues in water, at heights, in adverse biological and chemical conditions, in traffic accidents, we help other national or international public services, etc. A huge jumble...

We devote a large part of our efforts to fire prevention and to raise public awareness.

With this policy of prevention and facilitating the response to emergencies, we work with institutions, companies and individuals. This allows us to adapt our response and familiarise ourselves with the facilities, thus making the people of Madrid a true ally.



# How to become a firefighter?

To enter this exciting profession, it is essential to pass a **competitive public examination** with minimum requirements: baccalaureate and driving licence B, as well as passing various technical, theoretical, psychotechnical and physical skills tests.

To become an officer of the Corps, it is also a minimum requirement to have a degree in the field of Engineering or Architecture.

These requirements, plus the **training courses** of 600 and 1,000 hours, respectively, together with the numerous specialisation training courses, mean that there are professionals trained in the most commonly used disciplines and also in the less common ones.





Warrant

Officer

Sergeant

**Firefighter** 

**Group Leader** 

Chief

on duty

**Supervisor** 

on duty

Manager

on duty

# Our organization and professional ranks

We are 1,428 firefighters and 196 professionals working on the management, administrative and technical side, so that we have everything we need to provide a quality service. All the activity is carried out by 5 different inspectorates.

Our professional categories as Firefighters are as follows: Firefighter Driver Specialist, Firefighter Specialist, Group Leader Driver, Group Leader, Sergeant Driver, Sergeant, Warrant Officer and Officer. We provide the service in 2 ways:

- Direct Attention to Disaster
- Technical Support and Reserve Personnel

Dirección General de Bomberos Jefatura del Cuerpo de Bomberos Inspección Adjunta Operativa Inspección de nspección de Extinción Prevención

support, logistics, etc.



# **Our Fire Stations**

We have a distribution of fire stations in Madrid based on 'isochrone' calculations. The location of our 13 parks is designed to minimise our response time.

All fire stations have a minimum number of vehicles: 1 Heavy Urban Pump Vehicle; 1 Light Urban Pump Vehicle(Car) and 1 Ladder vehicle.

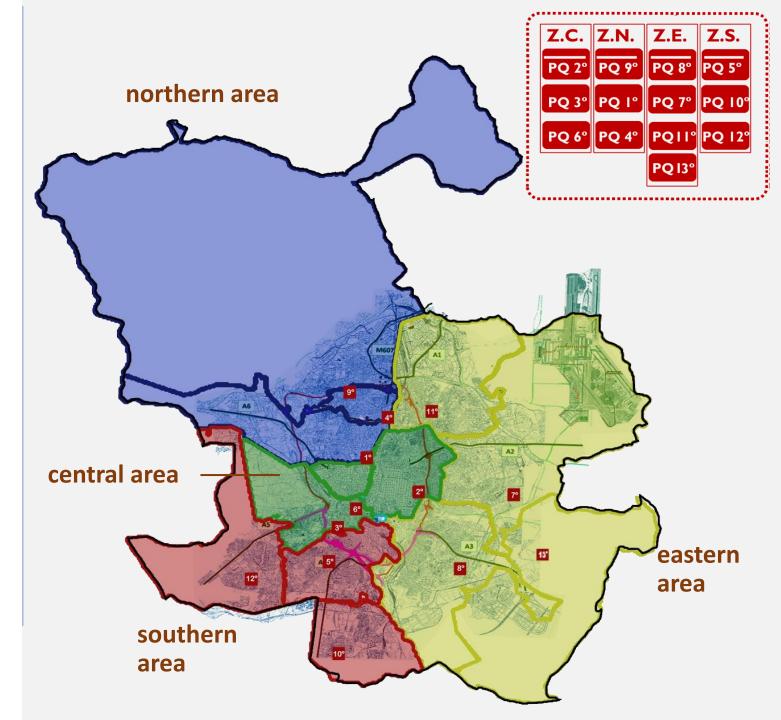
In turn, organisationally, we 'divide' the city into 4 zones: the central area, northern, southern and eastern ones.

In each zone there is a head fire station (we have 4) which has a greater response capacity in terms of both personnel and vehicles. Some of the fire stations have special vehicles for interventions require specialised equipment that personnel.









# **Operative organigram** 24h/365 days

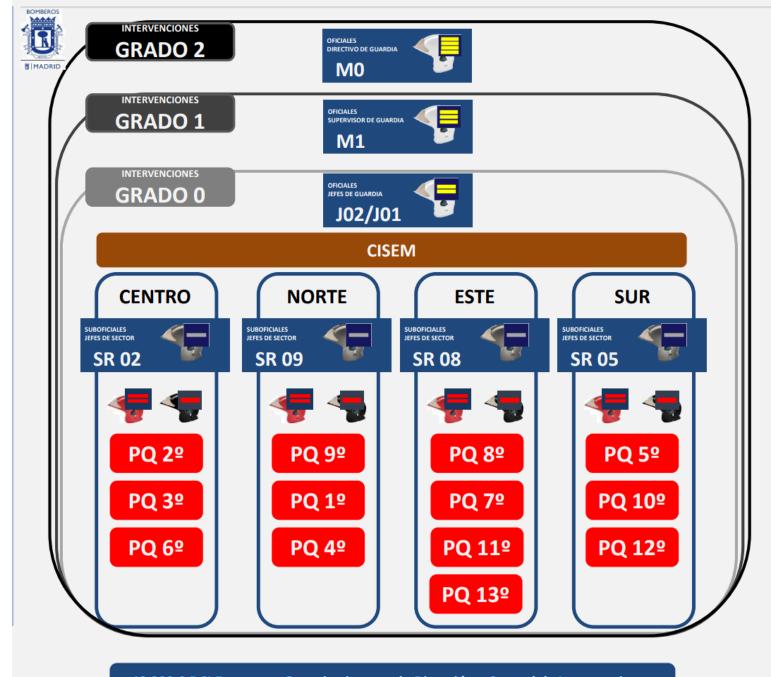
The response to disasters is staggered in **3 Grades** (G0 to G2), which allows immediacy in the activation and adequate sizing of resources.

The fire stations are activated under **level 0**.

At the head of each zone, there is a Sector Chief, who is activated for the coordination of interventions with several resources.

The Communications Centre is the nerve hub of information for the emergency, from where all the resources are coordinated by the Management on duty, in charge of 2 Chiefs on duty, also activated for the coordination of operations and technical evaluation of particularly complex emergencies.

The technical and management coverage of the daily management is completed by the Supervisor on duty and Manager on duty. They are activated in grade 1 and 2 emergencies, corresponding to large-scale disasters with a large mobilisation of resources.



42 002.0 DCI Estructura Organizativa para la Dirección y Control de Intervenciones

## Our means

Firefighters' uniforms and personal protective equipment are the result of rigorous prior studies and the latest technical advances in the field. In a certain way, they are co-designed between the Corps and expert suppliers, which results in improved safety and ergonomics.

We have a fleet of heavy and light vehicles, especially those dedicated to the following uses:

- Fire (pump vehicles, cars, forestry)
- Rescue (emergencies and ladder vehicles)
- Water (tanks)
- Special (RBQ, drainage, scaffolding, water rescue, debris removal, articulated arm, hives, mattress van, etc.)
- Towing vehicle
- Transport (command vehicle, van and bus)

Finally, we have management applications that allow us to properly exploit our resources and optimise our coordination, as well as to draw conclusions from our activity in order to improve our performance every day.





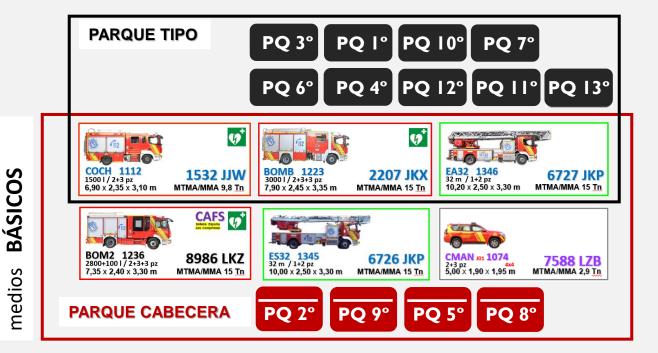




























# **Every second counts**

In just a couple of minutes, in a single careless moment, an outbreak can develop into a serious fire. The evolution of the problem is exponential, and can affect people and property with serious risk to them.

That is why the first premise in firefighting is to arrive as soon as possible and solve the problem in the most effective way, having the possibility of giving a growing and coordinated response with more forces.

Everything in the Fire Department, the distribution of the fire stations, the personnel training, the quality of the resources, converge in the objective of minimising the response time.

To this end, the response is rationalised by distinguishing between urgent interventions (with people or animals at risk) and non-urgent interventions. The average response time (A.R.T.) for urgent interventions in Madrid is less than 7.5 minutes.

**A.R.T.** urgent = **6:36** min

A.R.T. all (29,638) = 6:38 min

# **Back to normal**

One of the requirements of a modern and complex city like Madrid is that our work must be geared towards restoring normal operating conditions for the city.

In our interventions, it is not enough to eliminate the danger to people and property, we have to re-establish the economic and social fabric of the city, leaving it in the best conditions to allow the resumption of activity as quickly as possible.

To this end, using the resources available, our intervention does not end until normality is restored.



# **Significant Incidents**

### **JANUARY**

While 2 vehicles were parked on the side of the A-3 motorway for mechanical reasons, a third vehicle collided with them and ran over two people who were assessing the breakdown. One of them was displaced several metres and the second was trapped under the vehicle with his legs trapped under the weight.

The trapped person was freed and both serious patients were taken to hospital.





### **FEBRUARY**

A 35 m high and more than 60 m long construction crane began to tilt dangerously in C/ Padilla, due a defect in its base, threatening the integrity of the surrounding buildings. After the evacuation of 3 nearby blocks of flats and several premises, several large cranes were used for the controlled dismantling of the structure.

11 crews and more than 8 hours were employed to secure the area and dismantle the boom (horizontal part of the crane).

### **FEBRUARY**

A fire broke out in the 'Juan XXIII' old people's home in Aravaca, on the 1st floor, at 6:55 am.

11 teams were mobilised and the residents were evacuated after a prior triage to assess the different needs according to the areas. An Advanced Medical Post (AMP) was set up outside and 39 people were treated, 2 of whom died and a third was taken to hospital in critical condition.





### **MARCH**

There were two multiple collisions the A-3 on between motorway, two different kilometre points (12 and 15), involving 28 vehicles. Ten of them were seriously deformed due to the violent impact.

First aid was provided to the injured (18 injured in total), assistance and mobilisation of part of the vehicles and cleaning of the road surface. All perfectly coordinated with SAMUR-PC and Guardia Civil.



# **Significant Incidents**

### **MARCH**

A call was received to find a person on the ledge of the 'Hotel Emperador' on Gran Vía, on the 9th floor with suicidal intentions. An operation was carried out with mattresses at different points and safe zones were established with ropes on the roof.

After preparing the ladder, it was decided not to deploy it because it made the victim get more nervous. It took 2 hours of dialogue with the personnel of the acting forces for the person to change his attitude.





### MAY

The collapse of several floor slabs of a building under construction in Lezama Street caused the instantaneous death by crushing of 2 workers. Another worker was rescued with a broken leg and multiple contusions.

The removal of the material and the securing of part of the rubble that threatened to fall, required the deployment of more than 40 firefighters, as well as other forces and the use of the Municipal Police drone.

### JUNE

A fire broke out on the 9th floor of a 13-storey building in the Latina neighborhood, where a person was trapped and calling for help from the terrace at that height.

Due to the width of the street and the short distance to the façade, it was not possible to use the ladder vehicle, so there was no choice but to proceed to the rescue from the lower floor through the terrace by using a ladder with hooks and ropes.

11 people were rescued and 21 crews were required for this intervention.





### **JUNE**

A fire was reported in the pastures near a marginal settlement area in the Cañada Real. It was undoubtedly an arson attack in which 3 different outbreaks were identified.

Firefighters participated with 6 teams to tackle the risk due to the proximity to the houses. Aerial resources from the Community of Madrid were also used.

Traffic was cut off on the A-3 in the access area to Valdemingómez and it is estimated that an area equivalent to 12 ha was burnt.

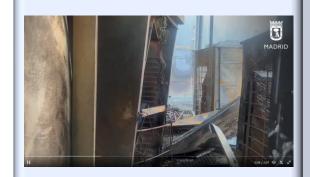


# **Significant Incidents**

### **AUGUST**

At 6 a.m. a fire broke out in the air-conditioning installations of a hotel on a street very close to Gran Vía. With the fire on the roof (13th floor), it was necessary to evacuate all guests (109 people).

Initially, the confinement of the guests in the rooms was considered, but after detecting a strong smell of smoke in some of the rooms, which came from the ventilation system in the bathrooms, it was decided to evacuate the entire building.





### **OCTOBER**

A fire broke out in a 4-storey block of flats in Carabanchel caused by the thermal leakage of the battery of an electric scooter on the -1 floor of the building while it was being charged.

The smoke from the fire entered most of the dwellings and it was necessary to attend to 17 people affected by minor poisoning with a SAMUR -PC field hospital and 3 people were taken to hospital for assessment.

8 fire crews were employed in this incident.

### **NOVEMBER**

On the occasion of the Valencia storm, Firefighters sent 108 personnel, in several relays, and 23 vehicles as part of the contingent coordinated by the Madrid City Council for this crisis.

In perfect coordination with Valencia Fire Department, work was carried out to drain flooded areas in buildings and garages, searching for possible victims and removing vehicles and obstacles from the streets, using the reinforcement of two EMT Madrid cranes.





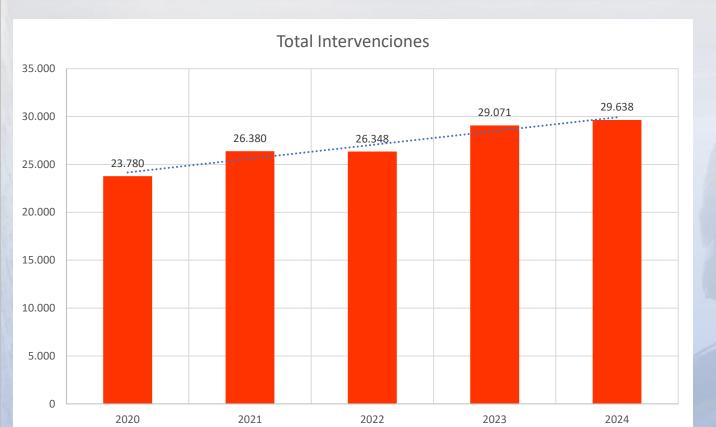
### **DECEMBER**

An electric vehicle caught fire in the Colón public car park at 22:00 h. on floor -3. The car park had to be closed until the following morning due to smoke on the 2 upper floors.

The fire was contained and the vehicle was removed to the outside, and the area was ventilated.

This type of fire (thermal leak in the battery) requires constant cooling and isolation, leaving the reagents to burn themselves out.





**INTERVENTIONS DAILY AVERAGE** 

80.9

**AVERAGE RESPONSE TIME** (ART)

6:38\*

Total interventions of the Service are taken on account (even no urgent ones too).

**PERCENTAJE OF INTERVENTIONS SOLVED WITH 1St ATTACK CONVOY** 

87.54 %

**AVALANCHE INTERVENTIONS DAYS** 

**Our performance** 

4 \*

Those days with more than 150 interventions: strong gusts of wind, floods, torrential rains, etc.

**OTHERS INSTITUTIONS DRILLS** 

36

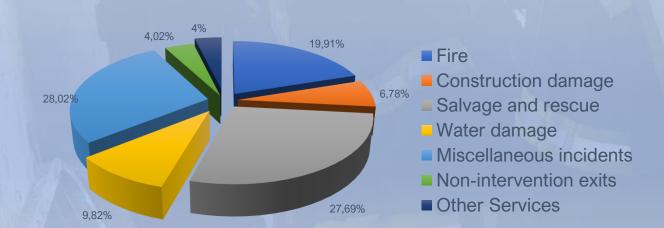
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### **INTERVENTIONS KEY/ TYPE**

KEY	TYPE	INTERVENTION NO.	A.R.T.* (min.)
1	Fire	5,900	6.39
2	Construction Damage	2,009	6.30
3	Salvage and Rescue	8,209	6.31
4	Water damage	2,910	6.39
5	Miscellaneous Incidents	8,306	6.49
6	Non-Intervention Exits	1,190	6.59
7	Other Services	1,115	-
Total amount		29.638	

\* A.R.T. Average Response Time

### **ANNUAL PERCENTAGE INTERVENTION TYPE**



# **Our performance**

**MADRID CITIZENSHIP EVALUATION** 



8,2 \*

Madrid Quality of Life and Citizenship Satisfaction Survey scoring. Up to 10.





# **EXTINGUISHING Inspectorate**

It maintains the operational capacity of human and material resources to deal with requests, managing on-call personnel, vehicles and all means used.

Develops and reviews operating procedures and identifies new requirements to improve service quality.

It programmes and supervises the manoeuvres, activities and operational maintenance to be carried out in the different fire stations, as well as with other public and private organisations.

It carries out studies of building typologies or singular infrastructures, in order to improve the operational preparation of the personnel in direct response to an incident and coordinates the preparation of pre-plans or specific intervention plans.

29,638 interventions

A.R.T.\* fire = 6:39 min

**305** rescued people from fire

\* A.R.T.: Average Response Time

# **PREVENTION** Inspectorate

The Prevention Inspectorate is responsible for fire prevention policy, so that it intervenes in the development of regulations and reports on refurbishment and new construction projects in relation to the application of current fire regulations.

In addition, it plans and organises inspections related to opening and operating licences and organises the reporting of new construction projects.

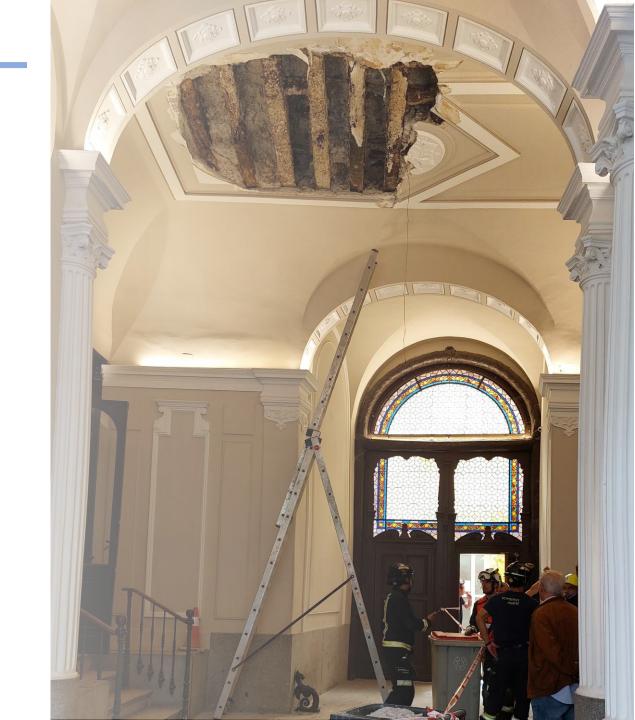
Finally, it manages the report on self-protection plans.

**1,078** official inspections

1,021 C.F.P.\* projects inspected

**935** self-protection plans

\*C.F.P.: Counter Fire Protection





# **PLANNING Inspectorate**

It is responsible for the planning of the Service with regard to studies of anticipation and needs for equipment, materials and infrastructures.

Carries out studies of specific applicable legislation on safety, health and workplace hazard prevention.

It is responsible for the supervision and general control of all goods and equipment.

It makes technical proposals for the acquisition of materials, equipment and vehicles and participates in the preparation of technical specifications.

It also plans and reviews the installations necessary for the performance of the Service, remodelling and adapting them when necessary.

**2,638** corrected incidents

1.242 vehicles maintenance

**12** improved facilities

# 11 TRAINING Inspectorate

It is responsible for the training of the Fire Department personnel in terms of entry courses, retraining, promotion, etc., as well as courses aimed at other groups in relation to fire prevention and our work.

To this end, it develops and proposes the content of training courses and related manuals, in accordance with the needs of the service and the requirements of the self-protection plans.

In general, it is an eminently practical training with a very low student-teacher ratio to ensure optimal learning and extreme care for safety.

**68** different training subjects

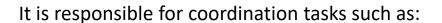
**71** promoted professionals

**50,457** training hours



# **COORDINATION** Inspectorate

COORDINATION AND COMMUNITY SERVICES INSPECTORATE



- Management of the agenda of non-urgent activities and related documentation.
- ✓ Processing, control and exploitation of all the documentation derived from the interventions (mainly the intervention reports).
- ✓ Issuing internal reports and other sort of requested ones by external organizations.
- Introduction improvements service in management quality and auditing.
- Management of the Fire Museum.

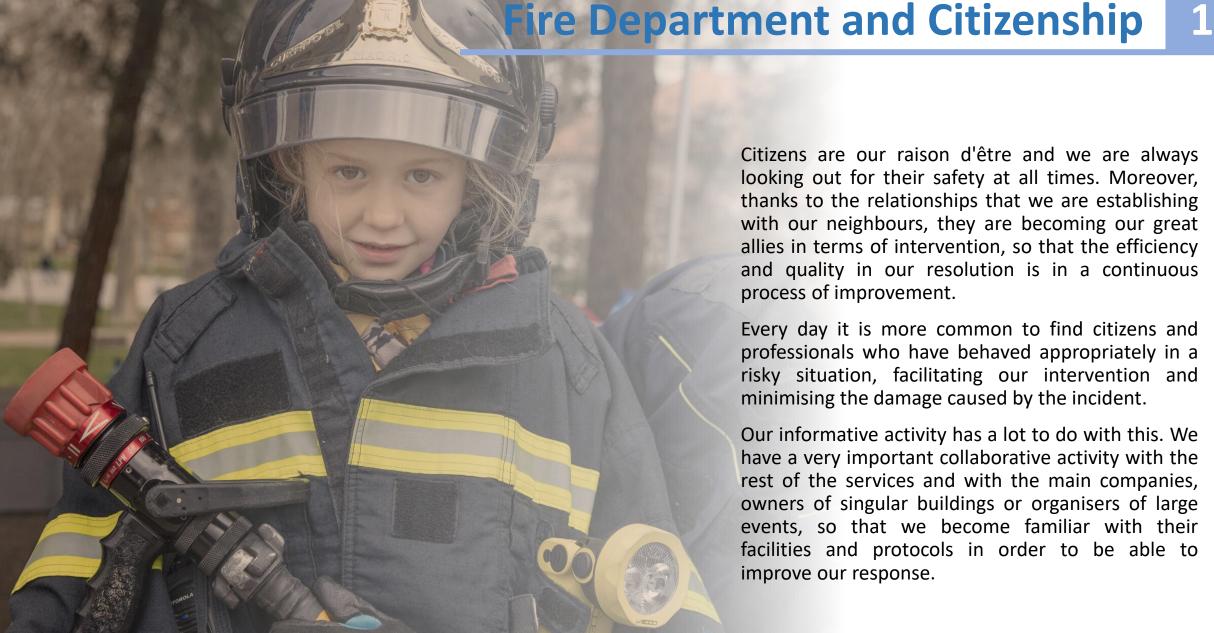
4,442 issued reports

**2,105** programmed activities

9,483 Fire Department Museum visitors









# Fire Department and Citizenship

We train and raise awareness among citizens, with a special effort towards children (the future) and towards the most disadvantaged and risk-sensitive groups.

We participate in the appropriate forums and congresses to acquire new knowledge, techniques and means that we then apply.

**92** citizenship activities

195 dissemination actions with schools

188,895 participants

7 international and national congresses

**7** Technical conferences

**16** Institutional ceremonies

