

Case study

# **MADRID TRAIN BOMBINGS, 2004**



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SUBJECT

**CUFS2416- EXPLOSIVE ANALYSIS AND POST BLAST INVESTIGATION**

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## **2004 Madrid train bombings**

*Date* – 11<sup>th</sup> March 2004

*Location* – Madrid, Spain

*Victim* – 193 people Killed and around 2,000 injured

Incident - During the peak of Madrid rush hour on the morning of Thursday, 11 March 2004, ten explosions occurred aboard four commuter trains. The date, 11th of March, led to the popular abbreviation of the incident as "11-M". All the affected trains were traveling on the same line and in the same direction between Alcalá de Henares and the Atocha station in Madrid. It was later reported that thirteen improvised explosive devices (IEDs) had been placed on the trains. Bomb disposal teams (TEDAX) arriving at the scenes of the explosions detonated two of the remaining three IEDs in controlled explosions, but the third was not found until later in the evening, having been stored inadvertently with luggage taken from one of the trains.

All four trains had departed the Alcalá de Henares station between 07:01 and 07:14. The explosions took place between 07:37 and 07:40,

- Atocha Station (train number 21431) – Three bombs exploded. Based on the video recording from the station security system, the first bomb exploded at 07:37, and two others exploded within 4 seconds of each other at 07:38. The train cars affected were the sixth, fifth and fourth. A fourth device was found by the TEDAX team two hours later in the first car, which was scheduled to explode when emergency services arrived. Two hours after the first explosions, the bomb was detonated by the bomb disposal team in the first car in a controlled manner.
- El Pozo del Tío Raimundo Station (train number 21435) – At approximately 07:38, just as the train (six cars and double-decker) was starting to leave the station, two bombs exploded in different carriages. The carriages affected were the fourth and fifth. Another bomb was found in the third wagon and was detonated hours later by the TEDAX team on the platform, slightly damaging the third wagon. Yet another bomb was found in the second carriage; it was disabled hours later in the nearby Parque Azorín, and allowed the police to find several suspects.
- Santa Eugenia Station (train number 21713) – One bomb exploded at approximately 07:38. The only wagon affected was the fourth.

- Calle Téllez (train number 17305), approximately 800 meters from Atocha Station – Four bombs exploded in different carriages of the train at approximately 07:39. The wagons affected were the first, the fourth, the fifth and sixth. The train was slowing down to stop and wait for train 21431 to vacate platform 2 in Atocha

At 08:00, emergency relief workers began arriving at the scenes of the bombings. The police reported numerous victims and spoke of 50 wounded and several dead.

There were 193 confirmed dead victims, the last victim dying in 2014 after having been in a coma for 10 years due to one of the Atocha explosions and not having been able to recover from their injuries

*Investigation:-*

A device composed of 12 kilograms of Goma-2 ECO with a detonator and 136 meters of wire connected to nothing was found on the track of a high-speed railway line on 2 April. The device used in the incident was unable to explode because it lacked an initiation system.

Shortly after the incident, police identified an apartment in Leganés, south of Madrid, as the base of operations for the individuals suspected of being the perpetrators of the Madrid and other attacks. The suspected militants, Sarhane Abdelmaji "the Tunisian" and Jamal Ahmidan "the Chinese", were trapped inside the apartment by a police raid on the evening of Saturday 3 April. At 9:03 pm, when the police attempted to breach the premises, the militants committed suicide by setting off explosives, killing themselves and one of the police officers. Investigators subsequently found that the explosives used in the Leganés explosion were of the same type as those used in the 11 March attacks and in the bombing of the AVE line.

Based on the assumption that the militants killed at Leganés were indeed the individuals responsible for the train bombings, the ensuing investigation focused on how they obtained their estimated 200 kg of explosives. The investigation revealed that they had been bought from a retired miner who still had access to blasting equipment.

Five to eight suspects believed to be involved in the 11 March attacks managed to escape

On 14 March 2004, Abu Dujana al-Afghani, a purported spokesman for al-Qaeda in Europe, appeared in a videotape claiming responsibility for the attacks

All of the devices are thought to have been hidden inside backpacks. The police investigated reports of three people in ski masks getting on and off the trains several times at Alcalá de Henares between 7:00 and 7:10. A Renault Kangoo van was found parked outside the station at Alcalá de Henares containing detonators, audio tapes with Qur'anic verses, and cell phones.

The provincial chief of TEDAX (the bomb disposal experts of the Spanish police) declared on 12 July 2004 that damage in the trains could not be caused by dynamite, but by some type of military explosive, like C3 or C4. An unnamed source from the Aznar administration claimed that the explosive used in the attacks had been Titadine that is used by ETA, and intercepted on its way to Madrid 11 days before.

In March 2007, the TEDAX chief claimed that they knew that the unexploded explosive found in the Kangoo van was Goma-2 ECO the very day of the bombings.

#### *Examination:-*

A radio report mentioned a plastic explosive called "Special C". However, the government said that the explosive found in an unexploded device, discovered among bags thought to be victims' lost luggage, and was the Spanish made Goma-2 ECO. The unexploded device contained 10 kg of explosive with 1 kg of nails and screws packed around it as shrapnel. In the aftermath of the attacks, however, the chief coroner alleged that no shrapnel was found in any of the victims.

Two bombs, one in Atocha and another in El Pozo stations, numbers 11 and 12, were detonated accidentally by the TEDAX. According to the provincial chief of the TEDAX, deactivated rucksacks contained some other type of explosive. The 13th bomb, which was transferred to a police station, contained dynamite, although it did not explode because it was missing two wires connecting the explosives to the detonator. That bomb used a mobile phone (Mitsubishi Trium) as a timer, requiring a SIM card to activate the alarm and thereby detonate. The analysis of the SIM card allowed the police to arrest an alleged perpetrator. On Saturday, 13 March, when three Moroccans and two Pakistani Muslims were arrested for the attacks, it was confirmed that the attacks came from an Islamic group

#### *Trial*

Judge Juan del Olmo found local Islamic extremists guilty for the 11 March attacks, not Armed Islamic Group or Moroccan Islamic Combatant Group. These local cells

consist of hashish traffickers of Moroccan origin, remotely linked to an al-Qaeda cell that had been already captured. These groups bought the explosives from low-level thieves, police and Guardia Civil informers in Asturias using money from the small-scale drug trafficking. On 31 October 2007, the Audiencia Nacional of Spain handed down its judgements. Of the 28 defendants in the trial, 21 were found guilty on a range of charges from forgery to murder.

Two of the defendants were sentenced each to more than 40,000 years in prison



Figure1. Image showing one of the blown up Trains.

*Challenges faced by forensic investigator:-*

1. Before the arrival of the investigators, since the medical assistance needs to arrive ahead and assist lot of evidences get unintentionally tampered and disturbed.
2. The amount of causality panics an investigator throwing them out of their proper and working state that makes it harder to concentrate and focus on what you should do.
3. The large amount of biological masses it tough to identify the potential and a strong evidence that one should collect.
4. The identification of the victims (dead mostly) through anthropological means and determine the cause of death
5. The processing of crime Scene, the primary crime scene where the bomb was first planted and secondary where it finally blew takes very long time as they lie at very different and distance from each other.

*Observation:-*

Improper or negligent security measures are the main reason for occurrences of such incidents. Although the medical assistance reached on time and proper medical care was given to the victims and a deliberate attempt was made to save the severely injured individuals. Basic Investigative and analytics processes were followed to carry on with the forensic related work that basically helps the court of law in justice delivery system. The SOP's were not followed and were jeopardized thus even risking catching the culprit.

*Reference: -*

1. <https://www.britannica.com/event/Madrid-train-bombings-of-2004>
2. [https://en.wikipedia.org/wiki/2004\\_Madrid\\_train\\_bombings](https://en.wikipedia.org/wiki/2004_Madrid_train_bombings)
3. <https://www.history.com/this-day-in-history/terrorists-bomb-trains-in-madrid>
4. <https://www.jstor.org/stable/10.7312/rein70454>
5. [https://link.springer.com/chapter/10.1007/978-3-030-40655-4\\_9](https://link.springer.com/chapter/10.1007/978-3-030-40655-4_9)
6. <https://www.ojp.gov/ncjrs/virtual-library/abstracts/report-erroneous-fingerprint-individualization-madrid-train-bombing>