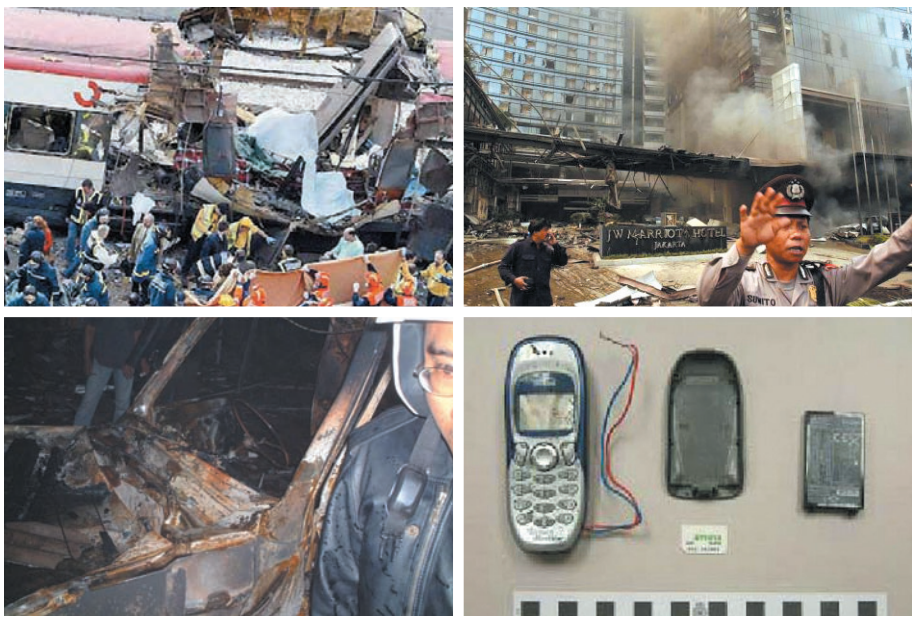
Death by mobile



A world of **terror**, clockwise from bottom left: Bali; Madrid; Jakarta; representation of Madrid mobile phone trigger

Mobile handsets are in the hands of millions of people around the world. And increasingly, of course, in the hands of terrorists

Sherelle Folkes examines the dark side of the mobile revolution

When the mobile networks went into meltdown following the July 7 terror attacks on the capital, it was thought that the government had ordered them to shut down for fear that the bombs had been detonated by a call to a mobile phone.

In the end, this proved not to be the case, but it highlighted the fact that the mobile phone can have a sinister side.

The fact that suicide bombers had triggered the blasts didn't emerge for some time afterwards. But in the aftermath of such a shocking event, and the fact that three of the blasts went off simultaneously, the question of whether mobile phones had played a role in the tragedy was certainly something the police couldn't afford to ignore.

So much weight was given to this idea in the initial hours after the bombing that it even prompted the US to take action. Mobile phone services were disabled in four Manhattan tunnels immediately after the London bombings.

The Port Authority of New York said the action was a precaution because of the fact that mobile phones can be used to detonate bombs remotely, as in last year's Madrid train attacks. The bombers who targeted commuter trains in Madrid on March 11 last year used the built-in alarm clock in mobile phones to set off the explosives.

Mobile phone detonators are not uncommon and using a mobile phone to set off a bomb is fairly simple. A call to the phone generates an electronic pulse that sets off the detonator or closes a circuit, triggering the bomb.

A mobile phone was used in the July 2002 bombing at a cafeteria at Hebrew University in Jerusalem that killed seven people. In the Bali bombings in October 2002 that killed 202 people, Jemaah Islamiyah terrorists triggered a bomb in a mini-bus outside the

Melamed says it is easy for mobiles to trigger bombs

Sari Club with a mobile phone detonator.

Attackers used the same method to detonate a car bomb at Jakarta's Marriott Hotel in August 2003, killing 12 people. During searches in Saudi Arabia, investigators of the May 12 bombings that killed 35 people found mobile phones rigged to detonate bombs.

French police found explosives systems meant to be detonated by mobile during raids around Paris that dismantled a terror group with ties to al-Qaeda and Chechen rebels.

The method is frequently being used in Iraq.

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We've got a file on you

Mobile phone records have proved invaluable in helping the police hunt down those responsible for terror attacks, both here and elsewhere. Now Home Secretary Charles Clarke has made a fresh push to compel phone companies to retain records of mobile phone calls, text messages and private e-mails for up to three years. But critics of the scheme believe it will just lead to a mountain of data that would take an eternity to sift through. Here's what the networks had to say about the plans.

O2

"Currently in the UK there is a voluntary agreement between telecoms companies and the Government to store data for up to a year. In Germany, Denmark and some other EU states there is no requirement to keep records.

"O2 has always co-operated with the police if information we hold could assist them with the detection of crime. Information will only be disclosed if the request has been properly authorised under current legislation. We are currently in discussions with the Home Office regarding its proposals to extend the time telecoms companies store call records."

Vodafone

"Vodafone UK is happy to work with the Government, where appropriate, to tackle terrorism and will continue to engage in constructive dialogue about proposals in this area.

"Policy in terms of what's required legally is something, quite rightly, for Government to debate and decide. We will of course engage with the Government during the decision-making process.

"Obviously, the retention of data may have a cost implication, and clearly the longer it is kept, the higher the cost would be – but we won't be commenting further upon the detail and possible implications until these proposals have been finalised. However, the issue of data retention has been discussed for some time. If changes to current law were made, Vodafone would abide by such a decision."

Orange

"In accordance with the Data Protection Act 1998, Orange only retains data for as long as is required for our business purposes. Orange UK policy is to retain records of calls made from contract accounts for two years. Calls made from pre-pay accounts are retained for six months.

"In the UK, we currently provide data to law enforcement and government agencies in accordance with the Regulation of Investigatory Powers Act 2000 (RIPA). RIPA creates a legal basis for the demand by law enforcement and government agencies for the disclosure of subscriber information, itemised billing and other communications data.

"We are working with the Home Office to understand its requirements in relation to the retention of telecommunications data. We take our responsibility to protect the confidentiality of our customers' personal data very seriously and the disclosure of such data is regulated by relevant legislation."

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"Our policy is based on the requirements of the Data Protection Act 1998 and the Privacy & Electronic Communications (EC Directive) Regulations of 2003 and other applicable laws such as the VAT Act. We may keep communications data for a period of up to 12 months for a range of legitimate business purposes.

"We are monitoring developments in

Clarke wants usage details to be retained longer

relation to the Framework Directive and we are aware that Jonathan Faull, director general of the European Commission's justice, freedom and security department commented last week that he hopes to present a revised document "as soon as possible".

T-Mobile

"We keep information electronically for up to a year. It's potentially feasible for us to extend this if we were required to, but both the implications and costing of that is something that we couldn't comment on until those plans are in place."

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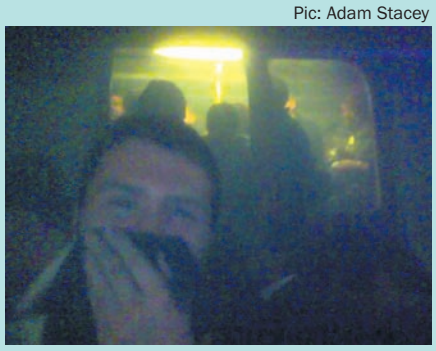
BREAKING NEWS

Reporter on the spot

One of the noticeable features of the news reports about the July 7 London bomb attacks was that they were supported by amateur footage taken not by camcorders or handheld cameras, but from the camera phones of eyewitnesses to the terror attacks

Pic: Adam Stacey



Camphones revealed the first events on July 7

It wasn't the first time that news stations had led with grainy shots of unfolding news stories. The Tsunami that claimed over 200,000 lives across Asia on Boxing Day was also reported with images sent in by the public.

Other news items, from comparatively mundane stories such as sudden snowfalls and flooding to a helicopter's impromptu landing on a motorway carriageway, have likewise rested on the chance footage captured by witnesses.

However, the reliance on amateur footage gleaned from mobile phones in the reporting of the terror attacks on London was unprecedented and marks a sea change in the way that news is reported and understood.

The BBC has received over 1,000 camera phone images of events on July 7, and hundreds of files of amateur video footage. Unlike Sky, which is offering around £250 for the copyright to images, the BBC will not pay for photographic contributions.

Getting involved

Vicky Taylor, editor of interactivity for BBC Online, says: "It used to be the case that we broadcast and the public listens. Not anymore. Now, the public gets involved. It wants to share its thoughts and images, and contribute to the news reporting process. That is the difference following July 7.

"Forty-five minutes after the Tavistock Square bomb we posted eye-witness accounts and images of the front of the bus blown up.

"The speed with which we got images back from Tavistock Square for both the web and TV outlets was incredible. It gave us access to what was happening, even though we weren't at the scene ourselves. The e-mails and images that were coming in were telling a completely different story to the one [we were receiving] about power surges."

She adds: "If you look at all the news bulletins on News 24, the 6 O'Clock News and the 10 O'Clock News, a vast amount of the content was made up of amateur footage. It was definitely a turning point for the reporting of events."

Stuart Thomas, editor of ITV London News, says:

"Previously, the only place you got home video from was air show disasters and weddings. But now a large proportion of people in this country are carrying a camera with them all the time, which is just incredible. Nowadays millions of people have camera phones, and most probably video phones as well. So it has changed everything.

"It's a great source that we'd be foolish not to tap into. We had images of people walking inside the tunnels, where you would never normally have a TV camera when an event like that is taking place."

ITV ran alerts across its morning news bulletins, asking for viewers' photos of events, as the media was still attempting to make sense of it. Thomas also set up ITV's Eyewitness News Team at the end of 2004, which comprises several hundred subscribers who are interested in helping the station report news by capturing it on their camera phones. On July 7, a text alert was sent out to Eyewitness members, asking for images of the bombings.

"We have a dedicated MMS number and a 3G number, to which viewers can send images and video," says Thomas. "The Eyewitness news crew worked really well at the riots that occurred at the opening of the new Ikea store in north London. At other times it is a bit of a punt, because the chances any of our subscribers being at a news scene are remote."

While leading news outlets were still reporting a "power surge" on the Tube, eyewitness accounts, complete with camera phone images, that appeared on websites just minutes after the explosions were revealing a quite different story.

Pictures of commuters trailing out of Liverpool Street station appeared on Moblog.co.uk at 8.59am, just minutes after the explosions occurred.

Fundamental change

Alfie Dennen, founder of moblog.co.uk and the website werenotafraid.com, which was created in response to the terrorist attacks, agrees with Taylor that the use of photos taken by eyewitnesses has changed the fundamental nature of news reporting.

"The very first image was published on our site three minutes after the event," says Dennen. "It is grassroots journalism.

Pic: Martin Purcell

News networks now rely on **ground-level reporting**

News has always been reported one-to-many. The BBC has always looked for a story and sent a reporter in to tell it. Now, news is being told many-to-many. Journalists can draw from a hugely knowledgeable public to report news. Their sources, and their access to those sources, have effectively improved."

One of those news sources, Martin Purcell, who fled the westbound Circle Line at Liverpool Street and posted a camera phone image on moblog.co.uk at 8.59, says that it was a need to share information that made him post the image on the weblog.

"It was instinctive," says Purcell. "Something was happening and I though that it was my responsibility to share it. It's as much an element of gossip as it is journalism. It just comes out of the natural instinct to tell a story and weblogs are an extension of that. Nowadays, there are so many ways to get access to information."

Ironically, on the ground the scramble for information was more difficult.

"There was so much anxiety. Everyone walked briskly out of the station in true Londoner style. I spent a good hour calming a lady down. No one knew quite what had happened. There was no way it was a power surge, but we didn't know what it was. A policeman told me that there had been a number of explosions, but that was as much as I knew. I went into a pub to watch the news on television."

The journalists that were sourcing information from the public in the midst of the chaos were, then, feeding back a fuller picture.

James Blackman

"There's definitely evidence that mobile phones are being used to detonate roadside bombs and car bombs," says David Claridge, a security specialist with consultancy Risk Advisory Group. "I wouldn't say it's the single biggest contributor to the bombings, but it's a technique that they're employing."

Network coverage

But using a mobile phone as a bomb detonator isn't without its fair share of problems, the most obvious of which is the issue of network coverage. It was for this reason that CellAntenna, one of the official bidders to provide London Underground with coverage inside the underground network, was able to rule out mobiles as playing a part in the July 7 Tube attacks.

CellAntenna managing director Howard Melamed has written several white papers on this topic, including "Understanding the Threat of Cellular Communication Used for Remote Triggering of Explosive Devices."

"We have conducted signal surveys of the London Underground and, although mobile phone signals are present at open-air platforms, such as Farringdon and Earl's Court, no signal was present in the areas where the bombs were detonated."

According to Melamed, mobile phones have incredible timing accuracy and can easily be turned into a trigger for an explosive device. "All mobile phones pose a threat to our public safety," he says.

Melamed believes there are several fundamental reasons why a mobile phone is a prime tool for terrorist activity. Not only are phones easy to conceal and nearly ubiquitous, the battery is of sufficient power to provide the energy needed for a detonation.

Another reason is that they are atomically synchronised giving a level of precision never before realised by an inexpensive timing device.

"The Lithium Cobalt Ion battery used in a mobile phone can be turned into a bomb," adds Melamed, "as the material is unstable and requires an electrical circuit to keep it safe. They can also be easily delivered anywhere in the world."

But Melamed says you don't just have to keep your fingers crossed that the bombers pick a place with poor coverage. "CellAntenna Corporation offers several solutions to this very real threat," he says. "Among these are mobile jamming devices that block mobile phone signals in vulnerable areas."

But with Transport for London currently working on proposals to extend introduce mobile phone access on the deep line Tube network, there are some who believe that this could increase the risks.

Effective detonator

Liberal Democrat London mayoral candidate Simon Hughes believes that the threat of mobile phones being used as bomb detonators is very real and has called on Transport for London to reassess its plans.

"Transport for London and the Mayor must reassess their plans to make mobile phones work on deep-line tunnels in the Tube," he says. "Mobile phones are now a cheap and effective long-range detonator for terror groups across the world. Texting is a luxury, security is not."

However a Transport for London spokesman says he is unaware of any case where this had happened. "In the case of the Madrid bombings, it was the timer on the bombs that came from a mobile phone, a mobile phone was not used to detonate the bombs," he says. "The timer on a mobile phone acts independently, regardless of signal coverage."

He adds that Transport for London's proposals to extend mobile coverage are intended for stations, not within tunnels.

"Around 55 per cent of the Tube network is above ground and we do not perceive that extending coverage beyond this will pose any additional threat to our customers. As the events of the July 7 have shown, if someone wants to detonate a bomb they will find a means to so." □