

FEEDBACK FROM THE FIELD

Strange Bed Partners: Thoughts On The London Bombings Of July 2005 And The Link With The Indian Ocean Tsunami Of December 26th 2004

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Terrorist attacks on the London Underground are not new. The first one occurred on October 30, 1881, at 8.13 a.m., just 20 years after the first line was built. The device exploded between Charing Cross and Westminster and left 62 persons dead, more than died in the recent attacks. Since then there have been numerous threats and actual attacks by the Irish Republican Army (IRA). Underground passengers became used to adjusting their travel when there was a “suspect package” on a train or in a station. The British Transport Police, Underground Division, trained and equipped teams to respond at high speed to deal with such packages.¹

Because these incidents were so common, Underground management became accustomed to making the decisions required. It could close a station but keep trains running through that station or, if necessary, close a section of a line. These closures had an impact but it was often minimal especially in central London. Stations like Leicester Square, Charing Cross, Piccadilly Circus and Oxford Circus are so close together that closing one caused little real disruption. The important thing was to keep the system running. Even after a bomb went off in London’s financial district, Underground trains kept running.

The situation was somewhat different when the Underground was informed of an IRA coded phone call. Those calls went to the police and they decided if they were credible but the Underground management had to determine whether to shut down. One coded call—the police rated it “credible”—said devices had been placed in the tunnels of the Central and Northern lines to go off at 9 a.m. that morning. Staff had checked the tunnels during the night and trains

had been travelling since the lines opened. However, unwilling to gamble that there was no bomb, the Underground evacuated the entire Central and Northern Lines and all connecting stations at 8.58 a.m. Service was out for more than an hour. No bomb was found but the IRA achieved what it wanted—disruption.

The more recent attacks in London are very different. There were no warning phone calls, coded or otherwise. There were no devices along the tracks or packages left on trains. The bombers carried the devices with them and, willingly or unwittingly, blew themselves up. In the United States a few days after the attacks, I heard comments that the experience with the IRA had left the British public suspicious of those who might pose a threat. Nothing I saw suggests that was true before the attacks. London Underground is filled with persons of all descriptions and many carry baggage, especially on the Piccadilly Line that serves Heathrow airport. I was on that line carrying two backpacks 72 hours before the bombings and no one paid me—or other passengers with similar baggage—any attention. I could have easily propped my bags by the doors and left the train without anyone noticing. The suspicions that existed during the peak of the IRA attacks had long since gone. The incidents in New York City and Bali and Spain had not resurrected them. At best someone might have spotted an item left behind after the train reached the station for Heathrow Terminals 1, 2 and 3.

But that is not the only major difference between the threats by the IRA and the recent incidents in London. The major difference on July 7th 2005 was that London's entire transport system was shut down. That left hundreds of thousands of persons stranded. Shutting down bus transport had a greater impact because it was summertime: Londoners prefer to travel by Tube during the winter but many switch to buses in nicer, summer weather. It is true that the decision to shut down was made when there was a possibility of more attacks. But it is also true that the attackers achieved a major goal—total disruption; something the IRA never achieved. The Israelis, who have faced suicide attacks over and over, have insisted that such disruption must be kept to a minimum. There, the authorities require any suicide bomb site be cleaned up within hours.

The Israeli policy may reduce the impact or perceived impact of such attacks but it creates problems for those investigating such

incidents. In London, it took investigators time to get to the impacted train cars and a much longer time to slowly and carefully gather evidence about the devices used and those who used them. That patience led to a series of arrests. That is the “catch 22” created by such attacks. Careful investigation takes time but adds to disruption. As it turned out, in London the search for those who brought the devices with them was remarkably quick. That was partly a result of the Israeli experience. The Israelis believe that when a suicide attack occurs, the first person who must be identified is the bomber. That allows for a rapid investigation on how the bomber got to that particular location and who may have assisted him or her. That is facilitated by another “catch 22”: the relatives and friends of the bombers need to report them as possibly missing. A failure to do so would be suspicious.

The response in London was assisted by something else—the tsunami disaster of December 2004. It may seem far-fetched to link the tsunami disaster to the Underground but the handling of the dead in mass death situations is carried out by persons who work in what Interpol, the International Police Criminal Organization, calls D-V-I. The letters stand for *Disaster Victim Identification* but D-V-I personnel respond whether the cause of death is an air crash, a serial killing, a tsunami or a bombing. The Metropolitan Police who responded to the mass deaths on the Underground were the same police who had been—and, in some cases, still were—dealing with the dead in Thailand and Sri Lanka. Their skills had been recently honed.

That is not the only link between the tsunami disaster and the bombings. After a mass death situation overseas, inquiries about missing persons are usually handled by a country’s foreign ministry. In London, in the wake of the tsunami, the Foreign & Commonwealth Office published a phone number for concerned relatives or friends to call. But that number was answered by Metropolitan Police at the Casualty Bureau. Those same police at that same bureau handled the phone calls after the incidents in London. As a result of the tsunami they had become very efficient at asking the questions needed to sort out where there is legitimate concern and where there is not. There were enormous problems in handling such calls in many countries in the wake of the tsunami, far fewer problems than there were in London. The efficiency of the Casualty Bureau assisted the investigation.

There are two other aspects of what happened in London that deserve attention. Both reinforce what we already know. The first is that the initial response in any major incident is not by emergency personnel but by those who happen to be on hand. The second is that in the wake of any untoward incident there are incredibly high speed communications other than by the mass media.

On the day of the first attacks on London transport, Peter Zimonjic, a Canadian journalist was travelling near Edgware Road when one of the bombs exploded on the train that was passing his train. Within minutes, someone came into his car and asked if anyone had first aid training. The person said that those in the car opposite were in trouble. Zimonjic did know first aid so he and another man smashed a window and jumped across to the neighboring car. Zimonjic says the first thing he did was give CPR to someone lying on the floor of the car. It was not of much use. The person was dead. In an account published in Canada, he recalled, "The person next to him, both legs blown off. She was dead. The person next to her, a gentleman in his 50s, was dead as well."

Eventually he found some people who were alive but bleeding from their wounds. "I ended up taking off my shirt, ripping it into bandages, tying them around people so they would be okay... I was incredibly distraught but focused on helping the wounded. There was blood everywhere. There were people with legs missing, people with heads missing. And then after a while it suddenly became clear that the train, the car that I was on [the one he had entered to assist] was completely destroyed. The roof was gone. The floor was gone. The walls were gone. The window was gone. It was a complete and total mess. And we realized there must have been a bomb." For Zimonjic, that wasn't a surprising conclusion. On March 13, 2004, almost four months before the bombings, he wrote an article for the Ottawa (Canada) *Citizen* stating that everyone riding the Underground knew it was just a matter of time before there was a Madrid style attack in London.

There is a belief among emergency planners that the response to an incident will be by emergency personnel. They will control the scene. They will do search and rescue. They will attend to and triage the injured and transport them to needed medical care. It is a belief that has little relevance in the immediate aftermath of widespread

destructive incidents like the tsunami disaster. As the incident in London on July 7th showed, it also often has little immediate relevance even for mass casualty incidents in a major city. London's emergency agencies responded quickly to the events of July 7th. They soon had the four impact areas cordoned off and were helping the injured. But before they got involved, many private citizens were involved. Among them were physicians from the British Medical Association (the bus incident occurred outside their office), staff from a Marks and Spencer store and volunteers like Peter Zimonjic. There was also an effective response from staff on the Underground. On one train, for example, the driver called out, "I've got to go forward a bit, then I can let you out, but first I need to make sure the track isn't live." Those who heard him passed the message along from person to person in the darkness. In a crisis, messages like that are passed accurately.

Even those with lesser skills did what they could. Julie Gruen from Huddersfield was on the same car as the one of the bombers. [She had actually gone to school with the man who blew her up.] She had managed to get a seat after her train left King's Cross and pulled out her book and started reading. "All of a sudden," she said, "there was a huge fireball coming towards me. I thought my head was going to explode." Gruen suffered minor cuts, bruises, minor head injuries and burns. One of her shoes had been blown off. The other was full of blood. Before leaving the car to walk barefoot out of the Underground, she noticed a man sitting across from her with severe leg injuries. "His legs had been ripped apart. I took off my jacket and pressed it onto his legs to try and stem the blood flow."

Zimonjic estimates it was an hour before outside assistance arrived. That seems like a long time and his estimate could be out. But it is a fact that responding to an emergency in the Underground can be extremely difficult. London Underground is dark and dirty and—to the uninformed—dangerous. Because there is no independent ventilation—that is created by the movement of the cars—if trains are stopped it soon becomes very, very hot. Anyone doubting how much ventilation is created by a moving train simply needs to stand at the entrance to the St. John's Wood Station on the Jubilee line: the air can be felt rushing by as a train enters or leaves the station. If a train stops in a tunnel, in 20 minutes the temperature may be 30 degrees Celsius. Soon, conditions will become unbearable. Since

there is only a tiny gap between the side of a train and the tunnel walls, passengers have to climb down a ladder at the front of the train and walk along the tracks to the nearest station. Power must be cut and kept off until it is certain everyone is out. The dust blown up by the explosion and the vermin that are always present did not make that a pleasant journey on July 7th.

The other thing that happened after the bombings—which is also normal—was that there were high-speed communications in the wake of the attacks. Long before the media could piece the story together, individual passengers and observers were calling others and sending out text messages and visuals of what was happening. Many newspapers carried some of those murky visuals to illustrate their stories. Bloggers were also sharing what they knew. While the ability to send visuals is new and blogs are new, high speed interpersonal communication is not. News of Canada's worst catastrophe—the 1917 Halifax explosion—moved as quickly across Nova Scotia as news of President Kennedy's assassination did more than 50 years later. Just a few months before the attacks in London, news of the impact of the tsunami disaster moved to Europe by private phone calls nearly an hour before the BBC broke the first news of what was happening. The Foreign Ministry in Oslo, for example, knew there was a problem well before its embassy in Thailand. Fritz and Mathewson, who first documented informational convergence, argued that a media blackout would reduce the problems. As I argued in a review of their theories, that is clearly not the case.

Although suicide attacks in London present a new problem, dealing with emergencies is not new to the Underground. Over the years, there have been rare incidents of crowd violence and one crowd crush incident—though that happened in wartime at a station not yet opened. There have been electrical failures, the worst at 6.20 p.m. on August 28, 2003, when a substantial part of London suffered a power outage, and there was a major failure in sharing information about what was happening. On that occasion, the National Power Grid did not—as planned—immediately inform the Metropolitan Police. Nor did anyone tell the mayor. Underground staff had so little information that individual Tube stations thought the impact was only on them. They advised passengers to go to a nearby station. Staff at that station was giving the same advice. The result

was massive confusion. Persons were going from station to station unaware the whole system had been affected by the power outage. For years the Underground had avoided being hit by a Power Grid failure by maintaining its own power source.

There have also been accidents and problems caused by weather and fires including the horrific fire at King's Cross on November 18, 1987. But the most persistent problem has been flooding. Since the first flood in 1862—which occurred when the first line was being built—there have been four major ones: Tottenham Court Road, December 15, 1930; Old Street, August 21, 1986; Euston July 16, 1987; and Waterloo November 23, 1975. The Euston flood spilled seventy-five million litres of water into the Victoria Line; and took three days to clear. But the worst one was in 1975 when a burst water main left 60 centimetres of water at Waterloo. It was 50 days before restricted service was back, 65 days before full service was restored.

Until the 1987 fire at King's Cross, the Underground's response to emergencies was split. One group handled problems with trains. Another dealt with problems on track and roadbed. The two had different styles and belonged to different unions. After the fire and a review of its emergency planning, Underground melded these two functions into one Emergency Response Unit, the ERU. Four ERU teams are stationed at strategic points around London, ready for an incident anywhere on Underground.

Experience has shown the ERU can deal with most Underground problems. It can fix a brake seizure or put a train back on the tracks. It can clean up after an accident. It can deal with flooding. It can handle little things as well. ERU staff has responded when posters have come loose and flapped against trains. They have cleaned up leaves and patrolled tunnels after an incident, before power was turned back on. They also operate effectively in difficult situations: they cleared up a derailment without disrupting service on the main line to Heathrow, and finished ahead of time. They are the number one resource after a "one under" (the Underground's jargon for a suicide), a task no one else wants. Most important, they can predict accurately how long it will take to restore service.

To assist the Underground in dealing with other services, ERU staff help educate personnel from the various emergency services. For example, they give regular hands-on training to firefighters,

teaching them how to jack up a train when someone is under it. For the police, with help of British Transport Police (Underground division), they have created an exercise for Hendon, the Metropolitan Police training centre. The incident, run on a large-scale model, is a mock train wreck. ERU managers have met with local government, and with staff at Heathrow. With the ambulance service, they have worked out an agreement about passenger problems on trains.

The ERU's skills have become so well known that they are now called upon by others. The ERU did heavy rescue at British Rail crashes at Clapham Junction and Purley. They were also on hand with lighting after a pleasure boat called the *Marchioness* sank in the Thames. For that incident, the Underground turned its stations into service centers—as a morgue, a supply center and a gathering place for relatives, reminiscent of its wartime role as a shelter. The Underground also works with the authorities during riots. It closes down stations in troubled areas and uses its trains to carry in police reinforcements, and carry out the injured. On July 7th, all four ERU units responded to the three incidents on the Underground. Since members of those units are used to working with emergencies and have a similar command structure to emergency agencies—the level of command is defined as bronze, silver and gold—that assisted a cooperative response to the attacks.

But no matter how well individuals, Underground staff and emergency personnel respond, there will always be problems with various types of emergencies on the Underground and it is unlikely there will ever be enough security to stop terrorist attacks. London Underground is a complex interlocking system of 14 lines and many of its stations are even more complex. For example, Oxford Circus has 25 stairways, 14 escalators and nine kilometers of walkways and platforms. It takes six hours to give a new staff member a full tour of the station. The busiest stations are Victoria, King's Cross, Oxford Circus, Liverpool Street, Waterloo and Piccadilly Circus, each of which sees more than 50 million passengers a year, all busier than Heathrow airport. The average weekday passenger load is three million.

At Heathrow every passenger is identified before being allowed to proceed to departure and every person and that person's luggage is checked before that individual is cleared to a departure lounge.

That takes a lot of time and personnel yet it involves only four access points in the four terminals. The Underground covers all of London and extends beyond the city's borders. It can be accessed at any one of its stations. Trying to match the sort of screening that takes place at Heathrow would bring the system to a halt. And profiling would be very difficult. New York City has tried some screening and discovered how difficult it can be: it would be even more difficult in London where the Underground serves the main bus terminal at Victoria and the main airport, Heathrow, as well as Waterloo, which is the Eurostar terminal for travel by Channel Tunnel to the continent. Passengers boarding Eurostar are checked the same way as airport passengers but they are not checked as they travel to Waterloo by bus or Tube.

The Underground has something else that proved very important in the wake of the bombings. The system has an estimated 1,400 closed circuit television (CCTV) cameras including high definition ones monitoring the movements of trains and passengers. Every day these cameras are used to monitor crowd movement so turnstiles can be closed or other adjustments made if a station or platform becomes overcrowded. Those same cameras are used to sport criminal activity. If staff spots something going on—say a pickpocket in action—it notifies the police who monitor what is happening then move in for an arrest. The tapes are then shown to the person arrested who usually confesses. Those same cameras were critical to the investigation of the July 7th bombings. Several of the bombers were identified by the tapes from the Underground's surveillance cameras which showed them entering the system. Those same cameras spotted the would-be bombers running from stations after the failed attacks on July 22nd. This is not the first time Underground tapes have been used successfully to track criminals.

The importance of London transport cannot be over stated. A study in autumn 2002 showed that only 10 per cent of those who live in inner London travel to work by car or van. That is in sharp contrast to the rest of the country. While 14 per cent of Londoners walk to work on a daily basis and another 10 per cent use bicycles or motor bikes, roughly half of the population gets to work by London transport, mostly on the Underground. In the wake of the bombings Underground usage dropped 10 to 15 per cent on week days—that's between 30,000 and 50,000 passengers a day—and

even more on weekends when travel is not so necessary. Once the Circle and Piccadilly Lines were back to full operation on August 4th, it was back to within five per cent of normal loading, a loading that was higher than ever partly because congestion charges have cut the use of cars. Suicide attacks may have had an effect on the way Londoners move about but it had to be temporary. Without the Underground, London would come close to a halt.

Notes

Background material is drawn from Scanlon 1996. The material presented here on the response to the bombings is drawn from sources who provided the information on the understanding they would not be identified.

References

Scanlon, T. Joseph (1996) "Changing a Corporate Culture: Managing Risk on the London Underground" *International Journal of Mass Emergencies and Disasters* Vol. 14 No. 2 August pp. 175-194