London's Suicide Bombers: Botched Operation

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London Bombings
Thursday’s attacks on London’s tube network and on a double-decker bus in Hackney bear the hallmarks of a botched operation. As more information emerges, the authorities in London have confirmed that at least three of the devices isolated on Thursday were of a similar size to those detonated by Islamic extremists during the 7/7 attack on London earlier this month. The fourth device appears to have been slightly smaller.

These devices consist of three main components. The first is a battery powered timing power unit or TPU which initiates the detonation sequence electrically. In recent times, mobile phones have been adapted by terrorists to function as TPUs. When activated, the TPU heats a metal filament within the second component - the detonator. Detonators contain a small amount of highly sensitive and volatile high explosives such as lead styphnate or mercury fulminate. When triggered by the TPU, the detonator generates a small explosion which provides the shock wave necessary to ignite the third component of the bomb – the bulk charge.

The bulk charge normally consists of a plastic explosive. The types of plastic explosive favoured by contemporary terrorist and resistance groups are sometimes of commercial origin but more often of military specification such as semtex, C4, P4, HDX or RDX. All of these explosives are nitrogen-based and contain nitro-glycerine or nitrocellulose. There is some suggestion that the bulk charge in the London attacks may have been home-made, or improvised in a terrorist bomb-making facility. Even a small amount of such nitrogen based explosives, between 2 to 5 kilos would be more than capable of causing the type of death and destruction as seen in the London attacks on the 7th of July.

It would appear that on Thursday, the detonators failed to ignite the bulk charge. Eyewitness reports and descriptions of the small but loud explosions seen and heard on Thursday would be consistent with detonator blasts. The fact that the detonators exploded within moments of each other – an operational signature echoing the 7/7 attack – suggests that the TPUs and detonators for these bombs were fully functioning. The third component in each case, the bulk charge failed to detonate. The suggestion that some of the bulk charges were surrounded by nails to function as shrapnel in the failed explosions indicate that the terrorists were seriously intent on killing and injuring – and not simply out to inflict terror in some sort of elaborate bomb scare.

The fact that the bulk charges failed to ignite reveals a great deal about the modus operandi of the London bombers. It may well be the case that as in the 7/7 blasts, those that couriered the bombs to their final destinations were young, inexperienced and poorly trained but fanatical operatives with no police or intelligence profile. On making their final approaches to their targets, these ill-prepared ‘martyrs’ will have either assembled themselves or have taken receipt of their improvised explosive devices. At this critical stage in the operation, the detonators will have been fitted to the bulk charge.

The failure of the devices to explode on Thursday will have been due to either the incorrect fitting of the detonators to the bulk charges, or an inert or poorly constituted bulk charge – effectively a home-made bomb that failed to go off.
Either way, Thursday’s failed blasts will provide a wealth of forensic information for the London authorities. Unfortunately, the terrorist cells will be well aware of this and may redouble their efforts to expend their pre-deployed stocks of explosives and to sacrifice their suicide bombers in the coming days in order to avoid their detection and seizure by a greatly enhanced and accelerated police and intelligence operation. They will be unlikely to repeat the type of technical errors made in Thursday’s attempted bombings.

Yesterday’s shooting of a suspected suicide bomber in Stockwell may well represent the first of a wave of such bombings over the coming days and weeks.

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