

The Naxal menace continues to haunt the country with periodic attacks that persistently bleed the hapless security forces and the civilians. While the tactics employed remain similar to the past, the techniques of the latest attacks reflect a new chapter in the Naxal warfare. One aspect that clearly stands out is the sophistication of Improvised Explosive Devices (IEDs) / roadside bombs / landmines employed in the latest attacks. Police figures from January 2008 to March 2010, reveal that IEDs are responsible for 70 per cent of casualties borne by security personnel. The increased reliance of the Naxals on IEDs coupled with greater accuracy and disastrous effects showcases that this tactic is here to stay.

Wide employment

IED can be defined as an explosive device that is planted or customised in an improvised way. It comprises of destructive and lethal chemicals or explosives and is prepared to devastate, cripple, harass or spread fear. The usual trend states that mostly IEDs incorporate industrial or agricultural components and rely less on military supplies. The history of IEDs can be traced back to the World War II, when IEDs were used by the Belarusian guerrillas against the German Army. It reached a new level, when it was effectively used by the Irish Republican Army (IRA) in Britain. The tactic remained prominent in the Vietnam War, was utilised by the Mujahideen in the Afghan-Russo war and remains an overriding factor in the insurgent attacks of Afghanistan and Iraq.

Mass destruction

In India, IEDs / landmines have dominated the insurgencies in Jammu and Kashmir and the north-east and now constitute an important part of the Naxal strategy. Also, the armed forces of India have faced the menace of these explosives during the operations in Sri Lanka. IEDs give more dividends to the guerrilla warriors and ensure minimum casualty on their side. A threatening change in the techniques of the Naxalites can be traced to September 21, 2004, when Naxalites consolidated with Left Wing splinter groups. Particularly, with the merger of major Left wing groups, namely Maoist Communist Centre of India (MCC) and the Communist Party

of India (Marxist-Leninist) People's War (also known as the People's War Group or PWG), Left Wing Extremism opened a dangerous chapter for India's internal security. Improved techniques of warfare, accuracy and enhanced sophistication of weapons marked a change in the Naxal violence. While the number of incidents of Naxal violence have decreased over the years, the casualties have increased exponentially. The existence of IEDs has been felt in almost all states in the Red Corridor. Their effect and presence is more prominent in the northern region of Naxal-infected area as compared to its southern region.

Weapon of choice

Naxals have reportedly set up four units to manufacture weapons and arms, where they are developing remote-controlled IEDs that can be set off with the push of a button. Other activities include making small bombs, mortar shells and 'Claymore Mines' or 'directional IEDs'. Apart from this sophistication, Naxals have become innovative by employing bamboo sticks as IEDs or can bombs. Such devices usually are not easily detected.

Considering the pervasiveness of IEDs in Naxal attacks, it is important to delve into the reason for it to remain a guerrilla's weapon of choice. An IED is extremely lethal, inexpensive to produce and can be paired with numerous detonation techniques (like detonation through mobile phones or remote controls) that pose minimum risk to the rebels. Additionally, the perpetrator can control the fatalities by deciding the detonation time and position of the bomb. IEDs can be produced at any place, with commercially-available materials such as agricultural and medical supplies. These bombs are portable and don't need any prescribed or specific environment for storage. Captured 'IED makers' in Afghanistan testified to learning IED-making techniques from manuals distributed by terrorist organisations or the ones available online. This clearly illustrates that producing an IED does not demand high technical expertise. The placements of explosives are asymmetric in nature and possess idiosyncrasies, as the method of improvisation is not static and depends on its maker.

LTTE trainers?

The most recent blast was in the Sheohar district in Bihar on October 23, 2010 when five cops succumbed to death. The effectiveness of the landmines used by the Naxals can also be attributed to their alleged external links. Tracing the use of IEDs / landmines, it is important to take into account the attack of May 17, 2010, when Naxals detonated the IEDs coupled with gelatine sticks and blew up a bus killing almost 40 people, including 12 Special Police Officers (SPOs). Experts consider the attack noticeably similar to the Liberation Tigers of Tamil Eelam (LTTE) attacks against Sri Lankan soldiers, therefore stating that Naxals have been trained by the splinter group of LTTE. The bomb was placed days prior to the attack and was planted by digging a tunnel from the side of the road to reach the crust of the road. The concrete top remains undisturbed therefore attracting no attention. A similar attack took place when an IED blew up an armoured vehicle killing eight CRPF personnel on a National Highway, close to a CRPF camp.

Easy access

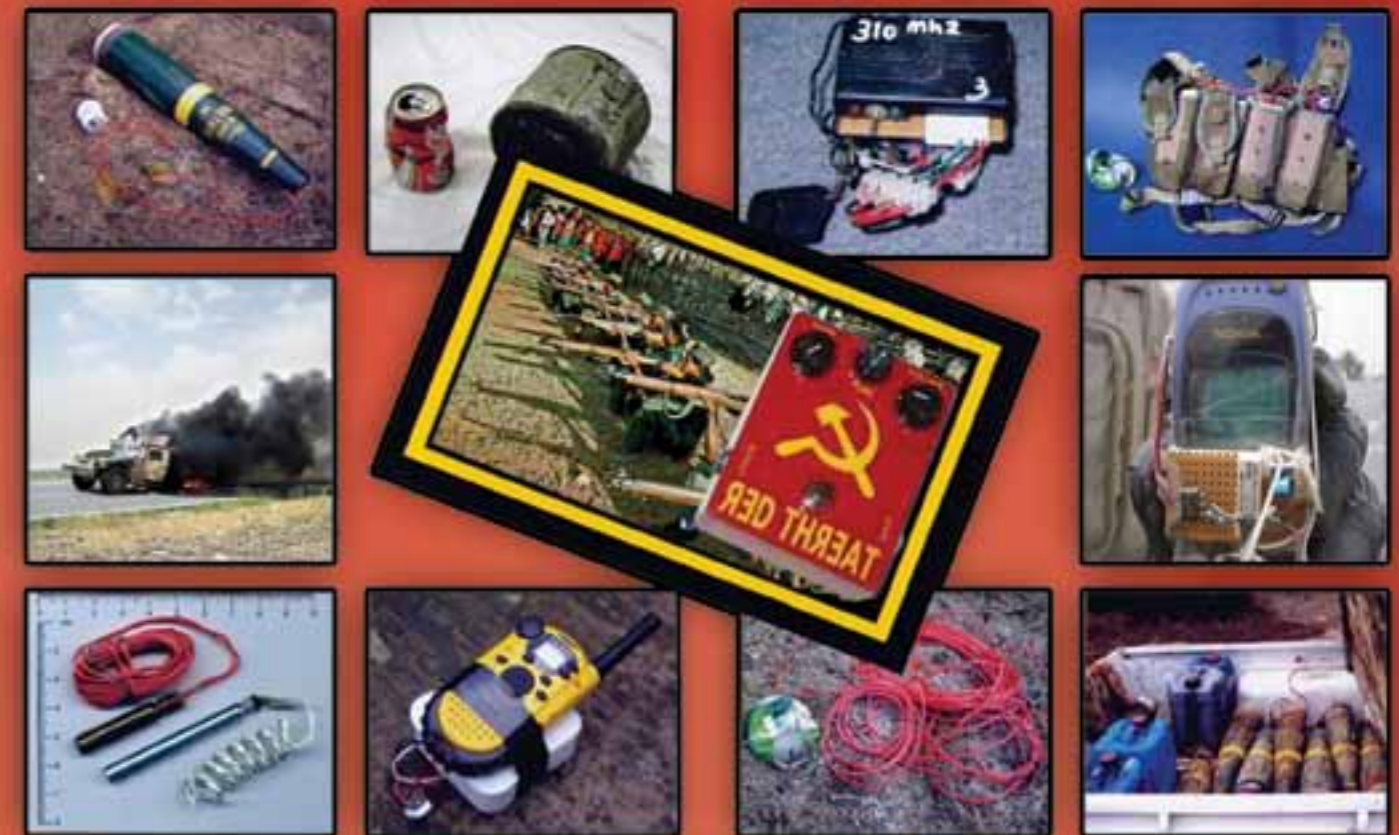
It is important to note that Naxals rely on Gelatine sticks rather than exploring the RDX option primarily because of the easy availability of gelatine sticks within India. Besides this, ammonium nitrate is an asset which is munificently used in the production of IEDs. On May 20, 2010 Naxals hijacked a truck in Bastar which was carrying 16.5 tonnes of high-grade ammonium nitrate explosives. A similar incident took place in the same area, when Naxals ransacked a truck carrying detonators, which was never traced by the police force. In March 2010 Naxals waylaid a truck in north Gadchiroli which bore ammonium nitrate mixture. The frequency of these incidents implies that dependency on IEDs would increase with greater intensity and Naxals would continue to utilise indigenous materials to prepare them.

Owing to the fact that Naxals control most of the mining activities in 'their' region, they have a strong hold on the industrial explosives too. This is another overriding concern that needs to be tackled by policy. Also, other

the IED menace



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Improvised Explosive Devices are as devious as the minds of the persons who create them. Over the years, like with conventional weaponry, this method of warfare has also evolved to achieve greater assured destruction. The Liberation Tigers of Tamil Eelam of Sri Lanka, before it was decimated with frontal military assaults had earned for itself considerable notoriety in the use of IEDs and belt bomb triggering tactics used by suicide bombers were said to be its creation. India has learned two lessons: 1) The dog is the best detector of explosives and 2) Counter-insurgency is a manpower intensive warfare.

rudimentary form of explosive is the mixture of urea and diesel. It is rather essential to highlight that most of the Naxal-placed landmines discovered weigh in tonnes and not kilos. Reportedly, Naxals have planted IEDs and mines in forests of Chhattisgarh, Jharkhand, Orissa and West Bengal to inflict greater casualties to security personnel undertaking operations in the area. Even National Highways in the worst affected districts have been mined by the Maoists. The government intends to include army personnel to detect the bombs, as the paramilitary forces have limited experience in such operations.

Although the Indian government persists to intensify its operations against the Naxals, it continues to maintain a slipshod attitude towards the issue of IEDs. The government has failed to legislate the Draft Ammonium Nitrate Rule, 2009, which was drafted to regulate the accessibility and supply of ammonium nitrate in India. The step was undertaken after the assertion that ammonium nitrate (used as fertiliser) was the main material used by Naxals in their IEDs. According to the Draft Rules, a consignment of ammonium nitrate passing through sensitive areas should be escorted by armed police personnel and the vehicle should be equipped with Global Positioning System (GPS).

Counter-measures

Naxals seem to be relentlessly evolving their IEDs, seemingly inspired from the Taliban and other insurgent groups in Afghanistan and Iraq. Unlike the Indian police or paramilitary forces, Naxals are not restricted by legalities and therefore can adapt faster to the changing scenarios and nature of warfare. The need of the hour is to arm the security forces with the latest technology and equipment needed to undertake Counter Insurgency Operations. As evident in J and K and north-east, Road Opening Parties (ROPs) have proved to be effective in neutralising the area before the security forces embark on operations, therefore reducing casualties. Prudently, ROPs should be conducted in Naxal infested areas before security personnel advance for operations. The army can train the security forces with a solid training programme in order to acquaint them with counter-IED technology.

Procuring equipment would be futile if not coupled with appropriate training.

It is imperative for the security forces operating in Maoist-infested areas to revamp their strategy and tactics to counter the landmines. More emphasis should be laid on movement by foot, rather than using vehicles in mine infested *kuchha* roads. This would render the massive landmines sometimes weighing in tonnes, ineffective. Simultaneously, a better network of intelligence gathering should enable security forces to clamp down on IED manufacturing units in forests and villages. The cadres having expertise in bomb making should be identified and targeted. Effective area domination and improvements in road opening procedures inculcated from the army, would help in detecting mines on highways and other metalled roads prior to vehicle movements. Another way of limiting the menace of IEDs would be to restrict the easy availability of industrial explosives from reaching the Maoists. As earlier brought out, enabling trucks carrying explosive materials with GPS and better security at their storage areas, identifying agents who siphon off explosives to the Maoists would help in this regard.


Most IED attacks turn out successful because paramilitary personnel tend to step on the bombs / landmines. In order to act swiftly and safely, the security forces require Mine Resistant Ambush Protected (MRAP) Vehicles. Additionally, electronic jamming systems can prove effective as a countermeasure to the IED menace. The system can be placed on the vehicles operating in the Red Corridor. This system would block the signals of radio guided initiators, like cell phones, long-range cordless sets. Another countermeasure can be to propose procurement of the PING (a Pentagon-developed microwave project) from the US administration, which successfully locate insurgent weapons. Further, the government can also employ Unmanned Ground Vehicle (UGV), which is equipped with a mechanical arm to inspect and relocate suspected IEDs.

Moreover, the global market offers an IED standoff detection system based on lightweight, mobile ground-penetrating radar which can be

installed on a vehicle. The system can detect metallic objects placed beneath the road-crust or at the roadside; these include mortar bombs or artillery shells rigged as IEDs. The radar has the ability to detect an IED / landmine from a distance of 300 ft, offering standoff safety and early warning for diffusion and neutralisation. Apart from these, the global market has numerous other weapon locating systems to order. It is important to point that the system of procurement is dominated by numerous procedures that remain both fruitless and ineffective. Rather than considering these procedures as gospel, the government needs to pull up its socks and equip the security forces with at least the basic equipment that ensure protection.

Control it now

The success of guerrilla operations greatly depends on IEDs, a threat that will continue to haunt India and the world at large. On June 10, 2010, US Defense Secretary Robert Gates declared that "countering the improvised explosive devices have become a high priority for NATO and that the United States has already begun to put training for IED detection high on its list." The statement mirrors the gravity of the IED menace and the seriousness with which it is being acknowledged in this era of turbulence. Undoubtedly, the sophistication of IEDs harming the US forces is more deadly as compared to the ones harming the Indian forces. For India, now is the right time to counter this threat before it transforms into an unmanageable threat like the Naxalites themselves. More than technology, a better grip on the area by the security forces possible only by an increase in the number of better trained and equipped personnel for anti-naxal operations who follow the correct road opening and movement drills in landmine infested belts of the Maoist hinterland will bring about a change in the situation.

A comprehensive and well crafted strategy to counter the lethal IEDs and landmines that combines better training and technology would bring down the number of security forces casualties suffered in left wing extremism considerably. 

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