



# Special Analysis

**Two Wheel Vehicles as Weapons**  
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## Summary

Bicycles, motorbikes, and motorcycles continue to be used as vehicle borne improvised explosive devices (VBIED's) throughout much of the world. The popularity of these effective delivery devices cannot be attributed solely to the fact that they are the principal mode of transportation in



many countries. While such vehicles may suffer from an inherent disadvantage in terms of the size of the explosive payloads they can deliver, they enjoy certain tactical advantages, such as their ubiquitous presence and ability to travel virtually unimpeded by traffic and security regulations that apply to automobiles and trucks. Such advantages make them ideal for mounting relatively small, but effective attacks, especially against hard targets. For example, bicycles were employed in three near simultaneous attacks in the Indian province of Uttar Pradesh in November 2007. These attacks targeted the Civil Courts in the cities of Lucknow, Faizabad, and Varanasi and are believed to have been carried out in retaliation for the arrest of 3 Jaish-e-Mohammed terrorists. Quantities of ammonium nitrate, along with detonators and timing devices were packed in lunch boxes strapped to six bicycles, which were placed near the civil courts.<sup>1</sup>

## Assassinations

The ability of terrorists to use two wheel VBIED's to bypass hardened security measures also make them effective weapons in assassinations. Dating back at least to 1992, the Liberation Tigers of Tamil Elam (LTTE) used a motorcycle borne suicide bomber to assassinate the commander of the Sri Lankan navy. The following year Sri Lankan president Ranasinghe

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<sup>1</sup> "Police Clueless about Uttar Pradesh Blasts, Use of RDX Confirmed," Webindia, November 23, 2007.

Premadasa was the victim of an attack employing an explosive laden bicycle. Similar attacks by the LTTE resulted in the death of the army chief of staff in 2006 and the deaths of at least seven army personnel when a motorbike rammed their bus in May 2007.

In November 2007 a remotely detonated IED hidden in a canvas bag on one of two motorbikes parked in the Philippine House of Representatives garage was used to assassinate prominent politician Wahab Akbar, a former member of the Moro Islamic Liberation Front and supporter of the U.S. backed Philippine government offensive against Islamic militants. More recently, Iranian nuclear scientist Masour Ali Mohammadi was killed while riding in his car outside his home in Tehran on January 12, 2010, when a powerful explosive charge concealed in a parked motorcycle was detonated by a remote control device believed to be a cellphone.

### **Iraq, Afghanistan and Pakistan**

Two wheel VBIED's have been a constant theme in the Iraqi Theatre of Operations, perhaps as a result of increased security measures put in place to prevent car and truck borne attacks. In October 2007 a man on a motorcycle wearing an explosive vest was able to navigate around barriers put in place to keep out automobiles and trucks and kill at least 28 police recruits in Baquba, the capital of Iraq's hotly contested Diyala province. At about the same time, Iraqi police killed a would-be bomber who was attempting to enter another police station north of Baquba. Iraqi and U.S. officials believe that these coordinated attacks bear the hallmarks of an al-Qa'ida operation. On February 3, 2010, Shi'ites pilgrims were the target of a bomb planted on a parked motorcycle in Karbala, Iraq, killing at least 20 and wounding more than 100.

In Afghanistan Taliban militants are using two wheel delivery vehicles against military and civilian targets. One of the deadliest such attacks since the fall of the Taliban in 2001 occurred in September of 2007 in Helmand province, where a suicide bomber set off an explosion in a crowded public square, killing at least 28 and wounding 59. Earlier attacks included the use of motorcycles in September 2005 against Afghani army officers, in February 2006 against Afghani police, and in April of this year against a U.S. security firm. In neighboring Pakistan, air force officers were the targets in early November 2007, when 8 officers were killed and 40 wounded in a motorbike borne attack. On February 5, 2010, two bombs attached to motorbikes and packed with ball bearings were used in attacks on Shi'ite worshippers in Karachi, Pakistan, killing 12 and wounding 49.

### **Tactics**

Bicycles, motorcycles, and motorbikes are used as delivery vehicles for IED's in a variety of ways. They are versatile weapons that can serve simply as transportation for a suicide vest clad bomber, as a conveyance for an IED hidden in a package or saddle bag, or as the IED itself with the explosive charge packed in the vehicle's frame.

Two wheel vehicles are a constant sight on the streets of New York as the preferred mode of transportation for deliverymen and couriers, as well as for lesser numbers of commuters and students. In addition to the virtual anonymity that this omnipresence provides, two wheel vehicles enjoy certain tactical advantages which are not shared with their larger counterparts. They drive with traffic and against traffic, on the streets and on the sidewalks, and sometimes through stop signs and traffic lights. The latitude that is accorded to two wheel vehicles, and especially bicycles, allows them to navigate through traffic jams and around security barriers virtually unchallenged. They also can be carried on subways and buses and left parked outside of buildings, drawing little or no attention.

**Conclusion**

While there is no credible reporting indicating that two wheel VBIED's are being considered for use in terrorist attacks in the U.S., their popularity abroad demonstrates that they could be used as viable IED delivery systems here. As may be the case abroad, increased security measures aimed at preventing attacks by larger vehicles might prompt would-be bombers to turn to less powerful, but potentially more effective, two wheel delivery systems.

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