

# **Potential Warning Signs and Indicators Associated with Preparation for and Execution of a Suicide Attack**

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# The Device— Man and Machine



## Palestinian Suicide Belt Device

### Firing switch

Modified personal games console.



### Main device

Pocketed belt worn around lower torso under a jacket, containing a number of iron pipe bombs containing TATP as the main charge, together with the arming switch / powerpack. The device is initiated from button on the games console.

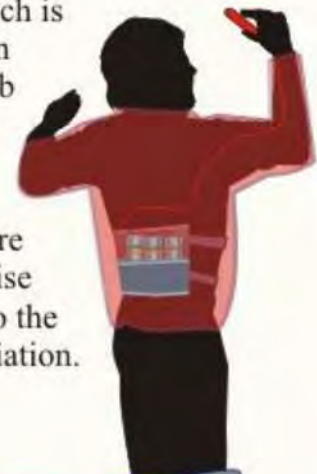
### Initiator

Photo flash bulb in holder is drilled and filled with gunpowder - one per pipe bomb.



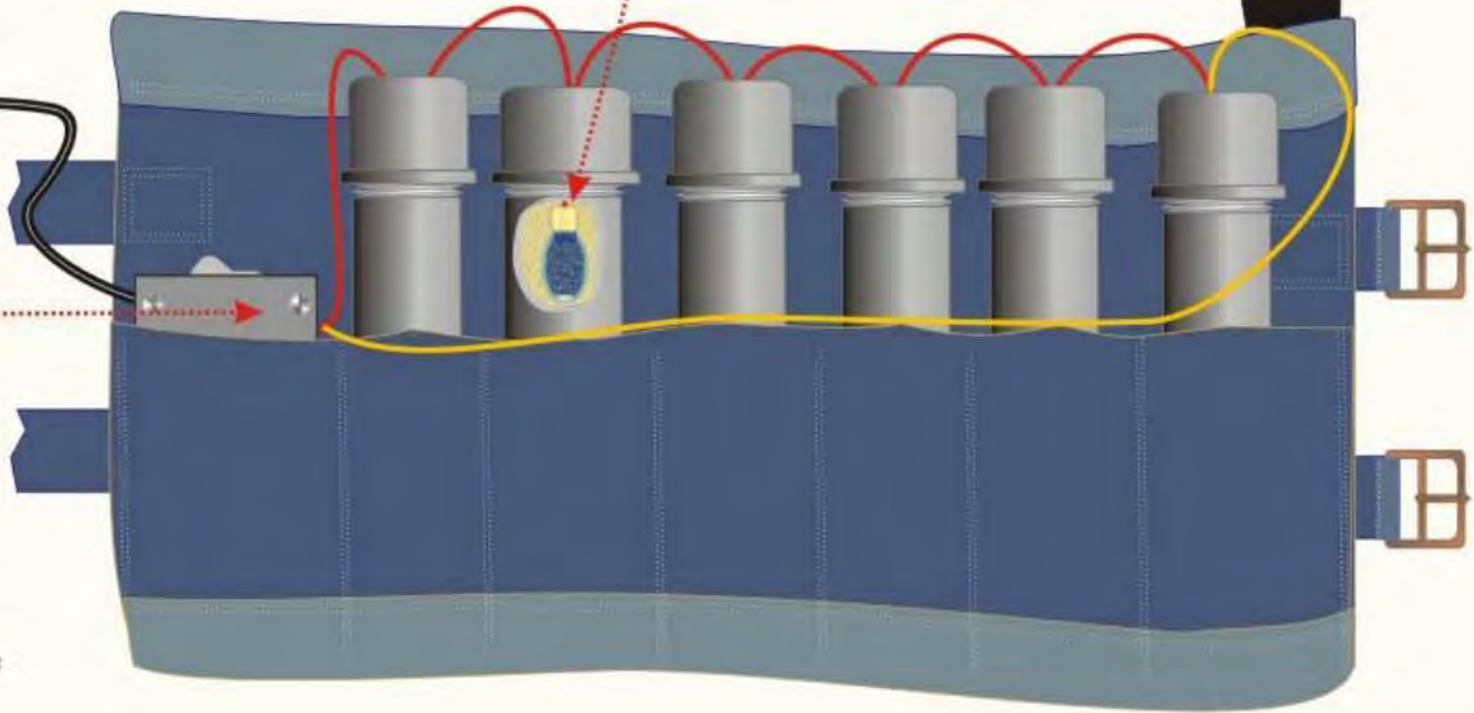
### Deployment

The cable from the firing switch is threaded down sleeve to bomb around waist under loose fitting jacket. Perpetrators are believed to raise their arms into the air before initiation.



### Arming switch

Simple rocker type arming switch and 9 volt battery.



## Who Has the Bomb

**Suicide bomber Dhanu, with a sandalwood garland, minutes before attacking former Indian Prime Minister Rajiv Gandhi. She is wearing an explosive device beneath her dress, intended to kill her and her target.**



# Suicide Bombings



# Suicide Bombings (cont'd)



11 Killed



# Homicide Bomber Victim

## 19 May 2002, Netanya, Israel

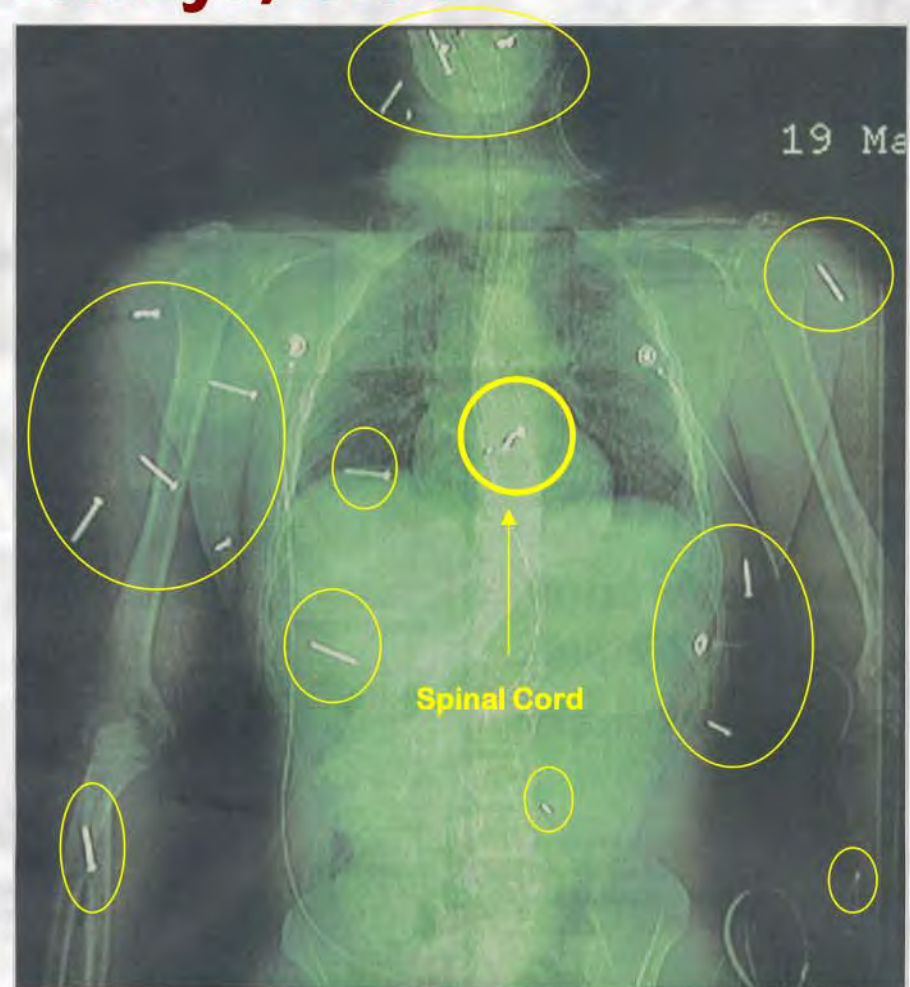
**Bystander in market area of attack**

**Initially presents with small puncture wounds**

**Antipersonnel characteristics of belt bombs**

**18 nails in upper torso and head**

**30+ in lower extremities**



*Trauma X-Ray - Hillel Yaffe Medical Center*

# **Suicide Bombers: What Do We Do about Them?**



**Mohamed Atta and Abdul Aziz Al-Omari  
passing through security at Portland Airport in  
Maine on September 11, 2001 (source: FBI)**











U.S. Department of Defense

# **Suicide Bombing**

- ▶ **Suicide attacks/bombings are those attacks where not only does the attacker anticipate dying, but actively participates in the process of his/her own death**
- ▶ **The difference between a gunman who expects to be killed versus a bomber who actually kills himself**

# Who Is a Suicide Bomber?

- ▶ **Male or female**
- ▶ **Young or old**
- ▶ **Any nationality**
- ▶ **With or without a family**
- ▶ **Political or apolitical**
- ▶ **Muslim, Jewish, White Anglo-Saxon Protestant, Buddhist**

# Ballistic Missiles: A Useful Analogy

- ▶ Most effort is focused on the terminal portion of flight, or cleaning up after impact
- ▶ Best approach is to prevent manufacture, or launch, of the missile



Courtesy USAF Air War College

# Ballistic Missile Analogy

- ▶ Suicide bombers are like the missile, carrying the warhead
- ▶ We should focus on how to prevent their manufacture (recruitment, training) as well as the launch (preparation, movement to scene)
- ▶ **But**, like a missile, even if we take out the launch capability, the ones in flight are still a hazard
  - ▶ It may take a generation **after** we remove the incentive/motivation to really have an effect



# Signature of Missiles

- ▶ Like missiles, the bombers, their “warhead” and manufacturing sites, launch sites, etc., have signatures
- ▶ We need to identify those signatures, and then determine the best method for neutralization
- ▶ Signatures occur at *all* phases of the process, not just at impact

# **“Signature”**

*That array of information, signals, and distinguishable characteristics that falls into a repeatable pattern that can then be used to identify a specific “target.”*

# ***What Is a Suicide Bomber?***

# General Characteristics of Suicide Bombing

- ▶ A central element in a terror organization's campaign of psychological warfare
- ▶ Both primitive and sophisticated aspects
- ▶ Primary goal is to terrify a larger group of people than those immediately present at the explosion
- ▶ Motives:
  - ▶ Acting in the name of God, a nationality, a leader, or the organization
  - ▶ Peer pressure
  - ▶ Revenge
  - ▶ Deterrence
  - ▶ Money
  - ▶ Paradise

## **General Characteristics of Suicide Bombing (cont'd)**

- ▶ Preparation may involve more than one person
- ▶ Both men and women may take part
- ▶ Suicide terror activities take place over a wide geographical area

*There is no single profile of a suicide terrorist—  
however, there ARE general characteristics.*

# How To Apply Signatures

- ▶ Understand the suicide bomber's process
- ↓
- ▶ Map the process to identify and catalog potential signatures
- ↓
- ▶ Generate specific technologies and techniques to help identify signatures
- ↓
- ▶ *Interdict or prevent the suicide attack*

# Four Areas of Focus

- ▶ **Prevention**
  - ▶ **How do you keep the bombing from happening?**
- ▶ **Detection**
  - ▶ **Who is the suicide bomber?**
- ▶ **Neutralization**
  - ▶ **What can I do about it after detection but before detonation?**
- ▶ **Response**
  - ▶ **What do you do about the aftermath of the explosion?**

**The result is a management problem that must address the connection between these four areas of focus.**

# Creating a Signature—Present

- ▶ Based on empirical observation
- ▶ Lacks the ability to predict unanticipated results or changes in operations
- ▶ Requires existing data
  - ▶ Like incidents must have occurred already

*Preventing a suicide bombing is the key!*



# Creating a Signature—Future

- ▶ **Combine the empirical approach with predictions**
  - ▶ **What is the bomber's planning process?**
  - ▶ **How will the attack be carried out?**



- ▶ **Implement a stepwise procedure:**
  - ▶ **Define the process required to plan, prepare for, and implement a suicide attack**
  - ▶ **Derive the anticipated signature from this process**

# Assumptions

- ▶ **Suicide bombers will be unfamiliar with U.S. culture**
  - ▶ They will need to seek advice and assistance
  - ▶ They may, however, have some familiarity with U.S. culture as they might have lived here for a few years
- ▶ **The suicide bomber is terminated in the attack**
  - ▶ Few experienced bombers are available to train others
- ▶ **Planning and preparation must be kept secret**
  - ▶ Bombers will be able to trust few people to assist them in the U.S.
- ▶ **Bombers will have to develop a cover story**
  - ▶ They will attempt to enlist petty criminals to help acquire materials and hide operations

# Assumptions (cont'd)

***But...***

***Criminals can be a source of information for the authorities!***

**According to the DEA, 90 percent of information on potential terrorist threats comes from *local law enforcement*, not the intelligence agencies!**

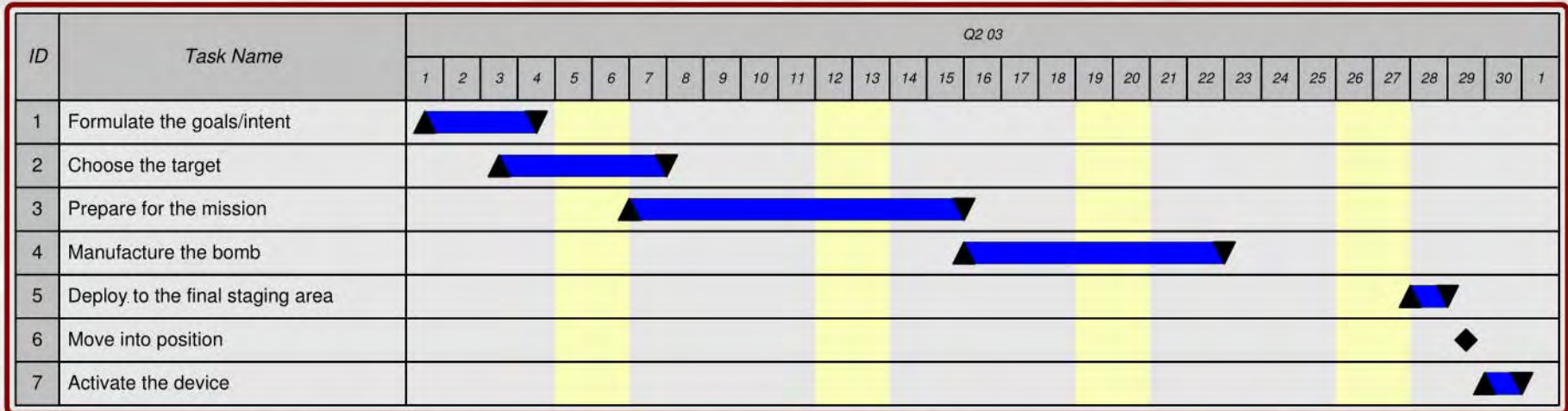
# The Attack Process and Opportunities for Detection

- ▶ Like a missile in flight, each aspect of the process has a unique signature
- ▶ The difficulty is in identifying that signature, and drawing the correct conclusion

# The Suicide Attack Process

1. Formulate the goals/intent
2. Choose the target
3. Prepare for the mission
4. Manufacture the bomb
5. Deploy to the final staging area
6. Move into position
7. Activate the device

# The Suicide Attack Process (cont'd)



# The Suicide Attack Process (cont'd)

## 1. Formulate the goals/intent

- ⇒ Mass casualties
- ⇒ Economic damage
- ⇒ Publicity
- ⇒ Political statement

### Opportunity to interdict:

- ⇒ Recognize the goals/intent via planning signatures

# The Suicide Attack Process (cont'd)

## 2. Choose the target

- ⇒ Choice will maximize the intended outcome
- ⇒ Choice will minimize the risk of intervention and required resources

### Opportunity to interdict:

- ⇒ Harden desirable targets
  - ⇒ Makes them less accessible
  - ⇒ Forces bombers to lesser targets or to expend more effort, or deters them



# The Suicide Attack Process (cont'd)

## 3. Prepare for the mission

- ⇒ Includes training, indoctrination and recruiting
- ⇒ *Usually* requires an organization with strong religious and/or political beliefs

### Opportunity to interdict:

- ⇒ Likely nonprofessional, non-American perpetrators will make cultural and/or criminal mistakes
  - ⇒ Alert law enforcement can identify and investigate

# The Suicide Attack Process (cont'd)

## 4. Manufacture the bomb

- ⇒ Collect components
- ⇒ Assemble the device

### Opportunity to interdict:

- ⇒ Detect chemical signatures, suspicious purchases, movement of required materials

# The Suicide Attack Process (cont'd)

## 5. Deploy to the final staging area

- ⇒ Check out the device
- ⇒ Work out final details
- ⇒ Minimize potential for failure/discovery

### Opportunity to interdict:

- ⇒ Transport of explosives and people
- ⇒ Behavioral cues
- ⇒ Clues from law enforcement/intelligence

# The Suicide Attack Process (cont'd)

## 6. Move into position

- ⇒ Position the bomber and the device at the target

### Opportunity to interdict:

- ⇒ Transport of explosives and people
- ⇒ Behavioral cues
- ⇒ Clues from law enforcement/intelligence

# The Suicide Attack Process (cont'd)

## 7. Activate the device

⇒ “Warhead” detonation

### Opportunity to interdict:

⇒ Behavioral cues

⇒ Trancelike state

⇒ Inappropriate clothing

⇒ Avoiding direct contact with others

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# Outlook for the Future

- ▶ **Recruitment of the disaffected in the U.S. will be key to terror organizations, à la Cold War espionage**
  - ▶ **The U.S. has no indigenous population comparable to the Palestinians in Israel**
- ▶ **Recruiter signature could become that of sociologist/psychologist who focuses on those vulnerable to manipulation and influence**

## **And Finally,**

- ▶ **Prevention is the goal—and the most difficult**
  - ▶ **Need early knowledge, identification, and interdiction of attacks**
  - ▶ **Must identify when, where, and how a suicide bombing might occur, and who might perpetrate it**



***We need to develop  
a comprehensive understanding of the  
motivations, goals, and intents  
of terrorists who use suicide attacks.***

***We can then  
create effective models of the process,  
derive the relevant signatures,  
and stop the attack.***