

Indian Mujahideen: Computational Analysis and Public Policy

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Bibliographic Reference

V.S. Subrahmanian, Aaron Mannes, Animesh Roul, and R.K. Raghavan, *Indian Mujahideen: Computational Analysis and Public Policy*, Springer, 2014.

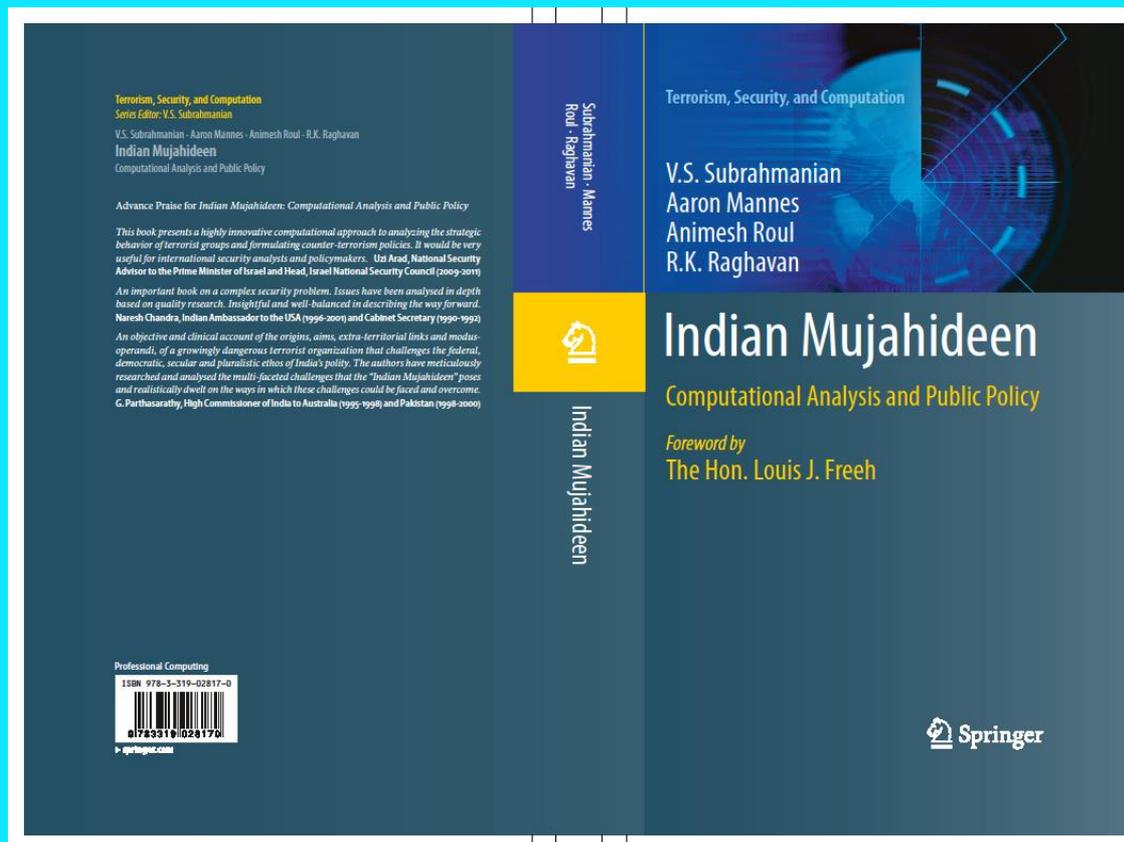
Amazon:

http://www.amazon.com/Indian-Mujahideen-Computational-Terrorism-Computation/dp/3319028170/ref=sr_1_2?ie=UTF8&qid=1381150669&sr=8-2&keywords=subrahmanian+mannes

Springer:

<http://www.springer.com/computer/databse+management+%26+information+retrieval/book/978-3-319-02817-0>

Foreword by Hon. Louis J. Freeh.

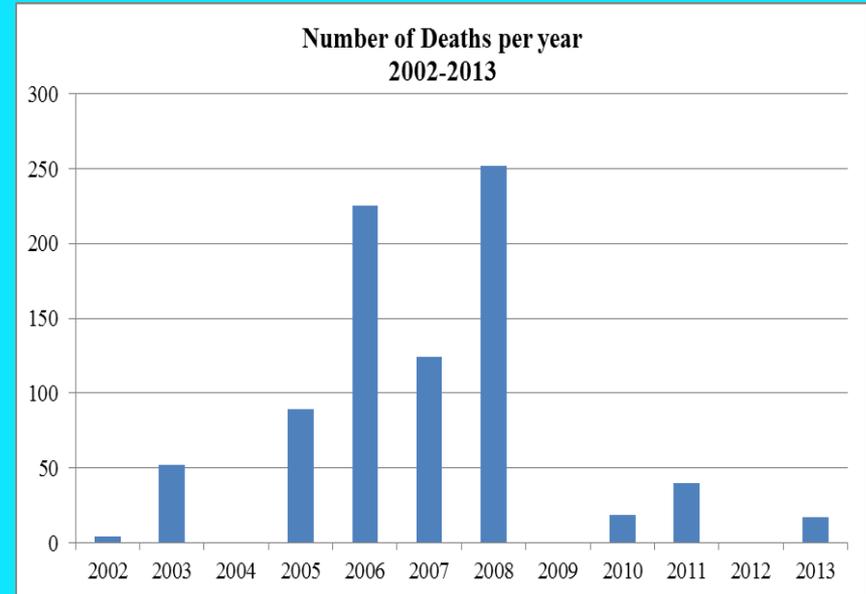


Introduction

Why Study Indian Mujahideen?

This presentation discusses the results of a computational model using “big data” analytics to make predictions about the terrorist group Indian Mujahideen and identify potential counter-terror polices.

- Indian Mujahideen (IM) seeks to avenge India’s alleged oppression of Indian Muslims
- IM has carried out dozens of bombings that have taken over 500 lives throughout India over the past decade
 - Attacks have targeted marketplaces, courthouses, and other public sites along with tourist attractions and religious sites
 - IM’s *modus operandi* is multiple near simultaneous blasts throughout a city
 - IM attacks often accompanied by emailed manifestos
- Supported by Pakistani terrorist groups and the ISI



Although IM attacks have declined in recent years, it remains a significant terrorist threat to India – and 2013 has seen a slight resurgence.

Presentation Outline

Part I: Background on Subject and Methodology

- 1 Indian Mujahideen (IM) History and Organization (slides 4-11)
- 2 Temporal Probabilistic Behavior Rules
- 3 Data Collection (slide)

Part II: Overview of Rules on IM Behavior

- 1 Targeting Public Sites (slide)
- 2 Bombings(2)
- 3 Simultaneous and Timed Attacks (2)
- 4 Total Deaths in IM Attacks (2)

Part III: Policy Options to counter IM

- 1 Policy Computation Algorithm
- 2 Counter-Terror Policies (3)
- 3 Building a Counter-Terror Center (2)

IM History I

SIMI's Founding & Communal Violence in India

- In 1977 Jamaat-e-Islami Hind (JIH) an organization representing India's Muslim minority established a new student wing the Students Islamic Movement of India (SIMI)
- Fueled by the oil boom, the Iranian revolution, Pakistan's Islamization policy, and the Afghan jihad, there was an international Islamic resurgence in the late 1970s and early 1980s
- Inspired by world events and their contacts with international Islamic organizations, SIMI took assertive positions: attempting to convert non-Muslims and advocating Islam as the solution to India's problems
- At the same time, in the 1980s India underwent a resurgence of Hindu nationalism and there was an increase in Hindu-Muslim violence
- In December 1992, a Hindu mob tore down the Babri Masjid mosque, claiming it was built on top of a Hindu temple – afterwards, rioting throughout India claimed over 1000 lives
- Some SIMI members argued this violence proved that India's secular democracy would not protect Muslims, the 1996 SIMI conference called for establishing the Caliphate (Muslim rule) in India
- On September 27, 2001 the Indian government banned SIMI as a radical Islamist group
- In February 2002 a train carrying Hindu pilgrims was set on fire as it passed through a predominantly Muslim area in Gujarat, 59 passengers were killed, sparking another round of communal violence that took over 1000 lives

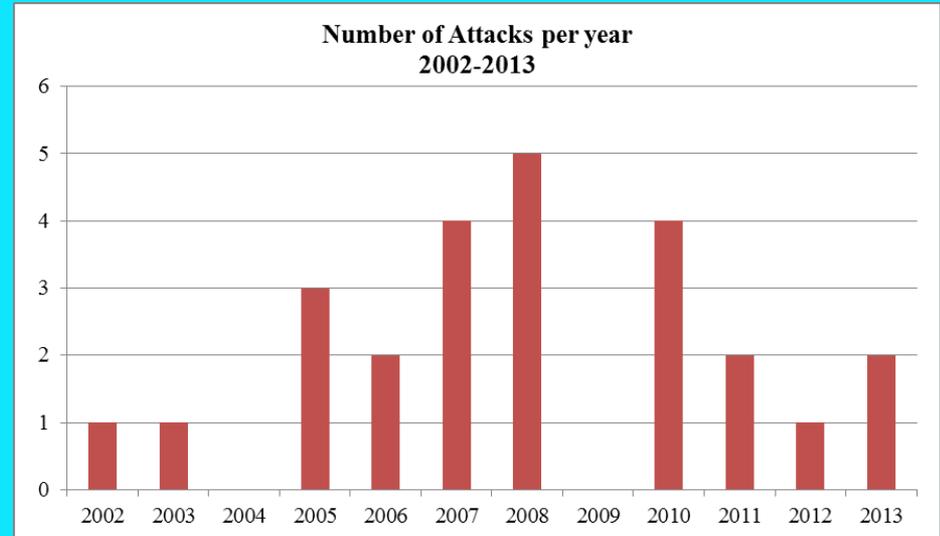
IM History II

Asif Reza Commando Force & Establishment of IM

- Asif Reza Commando Force (ARCF) was a group of Indian Muslim criminals led by brothers Asif Reza Khan and Amir Reza Khan along with Aftab Ansari
- In prison in the late 1990s, Asif Reza and Aftab Ansari made contact with jailed Pakistani terrorists, and began collaborating with the terrorists to raise money and place Pakistan-trained operatives in India
- After Asif Reza Khan was killed by police in December 2001, his brother founded the ARCF and organized a revenge attack on the American Center in Kolkota in January 2002 – gunmen on motorcycles drove by and killed four security personnel and injured 20
- Riyaz Shahbandri and Mohammed Sadiq Israr Sheikh, disaffected members of SIMI, made contact with Khan and Ansari who arranged their travel to Pakistan for training
- Shahbandri and Sheikh began recruiting other disaffected SIMI members to carry out terrorist attacks in India
- In summer 2004 Shahbandri, his brother Iqbal (also known as the Bhatkal brothers for their place of birth), along with Sheikh organized meetings at Jolly Beach that established IM
- Yasin Bhatkal, head of IM in India, was arrested by India in August 2013 and is reported to have provided details of the close relationship between IM and Pakistan's Inter Services Intelligence (ISI) agency.

IM Operations I: Initial Attacks

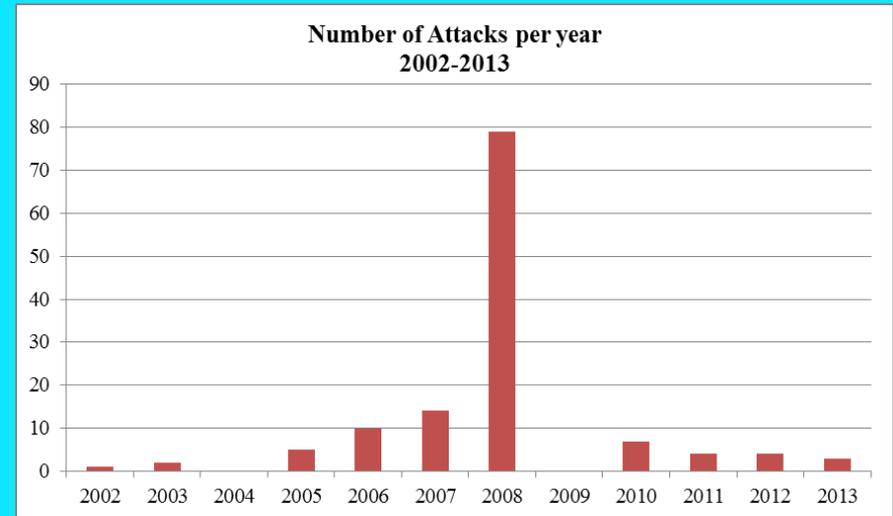
- IM and its predecessor groups carried out several deadly terror attacks before 2008 including:
 - October 29, 2005 three bombs struck markets in Delhi killing 67
 - March 7, 2006 two bombs in Varanasi (holy city for Hindus) killed at least 16
 - July 11, 2006 seven bombs on Mumbai commuter trains killed over 200
- Attribution of these attacks is unclear, at the time IM had not announced its existence and Indian authorities assumed these attacks were the work of Pakistani terrorists
- Attribution to IM came later from confessions of captured IM operatives
- Many of these attacks were likely joint operations between Pakistani terrorist groups and IM



Number of attacks by IM and its predecessors from January 2002 until April 2013. Attacks that include multiple incidents are counted as one attack.

IM Operations II: 2008 Terror Campaign

- On November 23, 2007, between 1:05 and 1:15PM bombs detonated at courthouses in three separate cities: Varanasi, Lucknow, and Faizabad (14 were killed)
- Moments before the bombs detonated media outlets received an email claiming responsibility on behalf of IM
- Throughout 2008 IM carried out multiple simultaneous attacks including:
 - May 13 in Jaipur nine bombs detonated at marketplaces killing 80
 - July 25 in Bengaluru seven bombs detonated at bus stops and shopping centers killed two
 - July 26 in Ahmadabad over 20 bombs detonated and killed 57
 - September 13 in Delhi five bombs struck markets killing 30
- Attacks were accompanied by emailed manifestos claiming responsibility for the attacks and outlining IM's grievances against India for its treatment of Muslims – particularly the 2002 riots



Number of attacks by IM and its predecessors from January 2002 until April 2013 when each event within a simultaneous/timed bombing is counted as an individual event.



Geographic Representation of IM's Presence

Shaded regions show states with a documented IM presence. Red icons show cities/towns where an IM attack occurred. Yellow houses show locations where an IM conference has occurred. Green houses show regions where an IM presence has been documented.

Image: Screenshot from Google Earth. Map does not show all of India.

IM Operations III

Tactics & Targets

- IM's premier tactic has been multiple simultaneous bombings using improvised explosives made from ammonium nitrate and fuel oil
- IM has demonstrated some technical sophistication, using hacked Wi-Fi accounts to distribute its manifestos without leaving a cyber-trail
- IM has chosen its targets strategically to undermine India's international standing, the most frequent locations of IM attacks have been:
 - Delhi, India's capital
 - Varanasi, a holy city to Hindus
 - Mumbai, India's financial capital
 - Bengaluru, India's technology hub

Pakistan Connection

- In its ongoing conflict with India, Pakistan's intelligence agency and their terrorist proxies support violent groups within India such as IM
- Lashkar-e-Taiba (LeT), perpetrators of the 2008 Mumbai assault, has been particularly active in supporting IM
- This support has included training, funds, and critical supplies such as explosives and travel documents
- IM founders Riyaz and Iqbal Shahbandri are believed to reside in Pakistan

Without Pakistani support it is unlikely IM would have become such a lethal terrorist organization

IM Current Status

- Days after the 2008 Delhi bombings, Indian police, in a search and sweep operation found an IM safe house, killed two IM leaders and arrested another while gaining valuable intelligence about the group that led to further arrests
- India's crackdown had some effect, IM did not carry out attacks in 2009
- On February 23, 2010 IM bombed the German Bakery in Pune, killing 17
 - Target was known to be frequented by foreigners (five of the dead were foreign nationals), the first incident in which IM specifically targeted foreign nationals
 - Attack was believed to be a joint operation between IM and its sponsor, Pakistani terrorist group LeT
- Although the pace and lethality of attacks slowed, IM continued to bomb targets throughout India, many of these attacks had low-intensity bombs that did limited damage, but some attacks inflicted mass casualties:
 - July 13, 2011 three bombs struck markets and a bus stop in Mumbai killing 27
 - February 21, 2013 two bombs detonated in Hyderabad killing 17
- August 28, 2013 IM operations chief Yassin Bhatkal was arrested on the India-Nepal border – his interrogation has revealed that IM was planning to target Jews in India and the organization was, increasingly falling under the sway of ISI

Data on Indian Mujahideen

- Collected values of 770+ variables (numeric and categorical)
- Data sources included media, NGO & research institute reports, government publications, and scholarly articles
- *Environmental Variables* relate to social, cultural, economic, military aspects of the environment in which IM is operating
- *Action Variables* relate to actions that IM took
- Rules identify environmental conditions under which IM took certain actions. Over 25,000 statistically sound rules were derived, 29 of which are presented in the book and identify conditions that predict the following types of attacks:
 - Attacks on public structures
 - Bombings
 - Consecutive or timed attacks
 - Total Deaths in IM attacks

Rules Predicting IM Operations I

Arrests and Targeting Public Sites

Rule Explanation

TP-Rule PS-1. IM attacks public sites one month after months in which:

- The Indian Government arrested between 1 and 21 IM personnel.

Support = 4

Probability = 100%, Inverse Probability = 100%,

Negative Probability = 0%

This rule indicates that one month after the Indian government arrests at least one and as many as 21 suspected IM operatives, the organization is extremely likely to carry out an attack on a public site. The support of four indicates that independent variable of the arrests was followed by the dependent variable of an attack on a public site four times.

Analysis

- IM has carried out multiple attacks on public sites, such as marketplaces, stadiums, and hospitals
- Rule PS-1 indicates that these attacks frequently occur after security forces arrest IM members
- Correlation is not causation: these arrests are probably NOT the cause of the attacks (which would take many months to organize) nor does this rule imply Indian security forces should not arrest IM operatives
- Rather arrests are a sign that attacks may be imminent so that security at likely targets can be increased

Rules Predicting IM Operations II

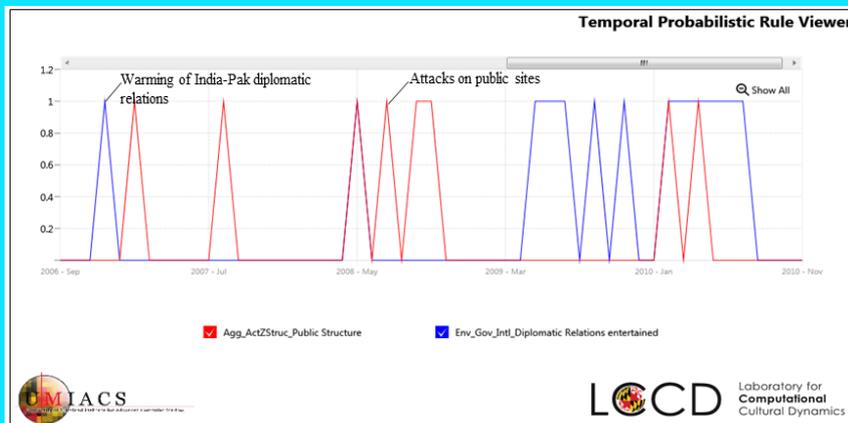
Indian-Pakistani Relations and Targeting Public Sites

TP-Rule PS-6. IM attacks public sites five months after months in which:

- India and Pakistan entertain diplomatic links.

Support = 4

Probability = 100%, Inverse Probability = 100%, Negative Probability = 0%



Analysis

- Rule PS-6 shows that when Indian-Pakistani relations are improving IM attacks on public sites are likely five months later
- The second graphic shows how specific occurrences of improved relations are frequently followed, months later, by attacks on public sites
- Elements within Pakistan oppose improved relations with India and may increase support for IM to derail diplomatic initiatives
- Improving relations between India and Pakistan is a worthy goal, but security services should be aware that when relations are improving attacks are more likely and security should be heightened

Rules Predicting IM Operations III

Claims of Responsibility and Bombings

TP-Rule BOMB-5. IM carries out bombings in which 0-69 people are killed two months after months in which:

- IM claimed responsibility for an attack.

Support = 4

Probability = 100%, Inverse Probability = 100%,

Negative Probability = 0%

This rule refers to months in which bombings occurred and killed 0-69 people (some IM bombings did not kill anyone), it does not include months in which no bombings occurred.

Analysis

- Bombings are IM favored tactic and after many of them, they have issued emailed claims of responsibility (often containing details about the attack that confirm their responsibility)
- Rule BOMB-5 indicates that when IM issues a claim of responsibility, there is often another attack two months later
- These claims of responsibility are not causes of the attacks, but could be indicators that IM has further operations in the works
- When IM issues these claims of responsibility, security services should be on alert for further IM operations

Rules Predicting IM Operations IV

Hindu-Muslim Violence and Bombings

TP-Rule BOMB-9. IM carries out bombings one month after months in which:

- There was internal violence within India.

Support = 4

Probability = 100%, Inverse Probability = 100%,

Negative Probability = 0%

TP-Rule BOMB-10. IM carries out bombings one month after months in which:

- There was internal violence within India that killed 2-15 individuals.

Support = 4

Probability = 100%, Inverse Probability = 100%,

Negative Probability = 0%

Analysis

- Rules BOMB-9 and BOMB-10 indicate that a month after Hindu-Muslim violence within India, there is a strong likelihood of bombings
- Avenging violence against India's Muslims is probably the leading cause for IM
- It is not clear if specific episodes of internal violence spark bombings as revenge attacks
- Nonetheless, Indian security forces should be aware of the connection and increase security at likely targets during periods of internal violence between India's Hindu and Muslim communities

Rules Predicting IM Operations V

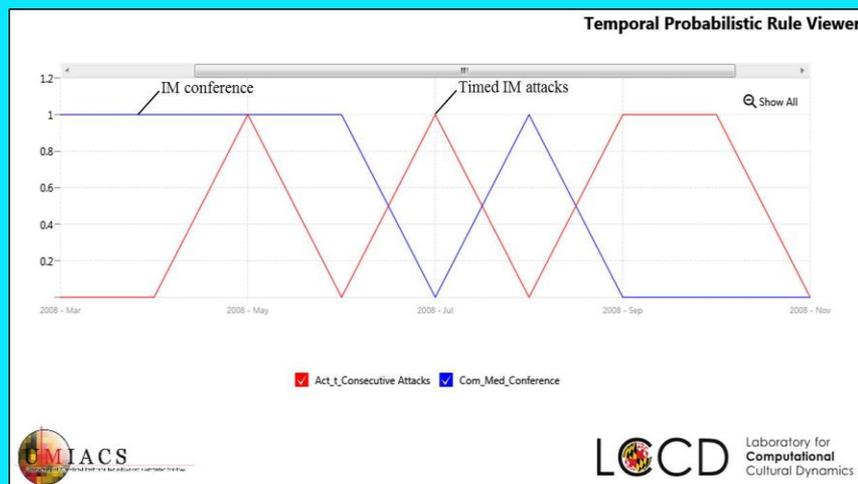
IM Conferences and Timed Attacks

TP-Rule SA-2. IM carries out timed attacks four months after months in which:

- IM organized a conference.

Support = 4

Probability = 100%, Inverse Probability = 100%.



Analysis

- One of IM's trademark tactics are sophisticated simultaneous or carefully timed attacks
- In Ahmedabad in July 2008 20 low intensity bombs detonated within 45 minutes, then when crowds had gathered a bomb detonated at the hospital
- These kinds of attacks require intense planning which can only be done at high-level meetings between IM leaders
- Rule SA-2 indicates that when Indian security detects these conferences, it is very likely that a multi-pronged attack is in the works
- Further, when possible Indian security should seek to infiltrate or disrupt these conferences to pre-empt IM operations

Rules Predicting IM Operations VI

IM Rhetoric and Total Killed

TP-Rule TK-2. IM carries out one or more attacks that kill between 0 and 69 people two months after months in which:

- IM communicates about its ability to carry out attacks.

Support = 3

Probability = 100%, Inverse Probability = 100%.

This rule refers to months in which attacks occurred and killed 0-69 people (some IM attacks did not kill anyone), it does not include months in which no bombings occurred.

Analysis

- IM's emailed manifestos often explains why it chose a given target and describes the groups intentions and capabilities (one manifesto stated the attack was to show that even high-security zones were not safe)
- Rule TK-2 shows that when IM rhetoric makes these kinds of claims, further attacks are being prepared
- IM communiqués should be monitored carefully for this kind of information and when it is detected security should be increased

Rules Predicting IM Operations VII

Links to other Terrorists and Total Killed

TP-Rule TK-5. IM carries out one or more attacks that kill between 0 and 69 people two months after months in which:

- IM's members were reported as belonging to other non-state armed groups.

Support = 5

Probability = 100%, Inverse Probability = 100%.

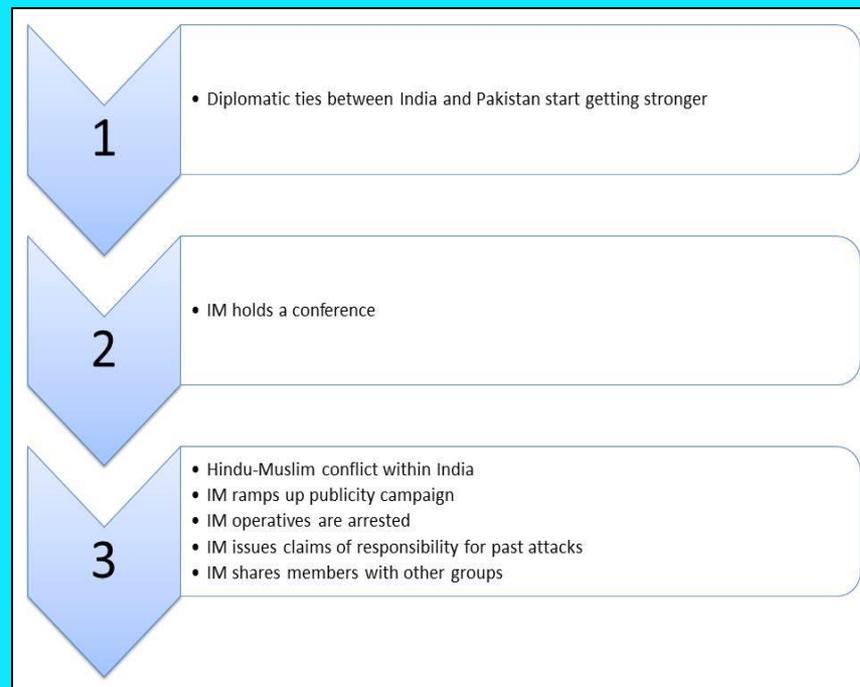
Analysis

- Rule TK-5 indicates that when IM operatives are reported to be members of other terrorist groups (e.g. LeT, HuJI), a terror attack is likely two months later
- Links between terrorist groups are essential for transferring knowledge and materials between the group – IM has benefitted enormously from its links to Pakistani terrorists
- Links between terrorists are probably ongoing, but when news of them surfaces Indian security should be alert because an upcoming attack is likely
- Further, Indian security should seek to disrupt these links whenever possible

Rules Predicting IM Operations VIII

Conclusions and Summary

- Surveying the statistically significant rules highlights a series of events most of which appear to occur prior to an attack
- Four or five months before an attack Indian and Pakistani relations improve, possibly causing Pakistani terrorists to try to derail the diplomatic outreach
- About three to five months before the attack IM leaders meet to plan an operation
- About one to three months before the attack some of the following five events occur:
 - Communications regarding prior attacks denote another round of violence
 - Arrests of IM personnel and links between IM and other terrorist groups indicate the increased activity needed to plan attacks
 - Outbreaks of Hindu-Muslim violence just before an attack may further inflame IM's cadre



The above graphic highlights the series of steps, most of which precede an IM operation. These events can be a warning that attacks may occur – they also present opportunities to disrupt IM operations.

Policy Options Overview

ENVIRONMENTAL CONDITIONS PRECEDING IM ATTACKS	POTENTIAL POLICIES TO BETTER PREPARE FOR OR MITIGATE ATTACKS
Warming Indian-Pakistani Relations	<i>Increase security operations in the wake of diplomatic activity</i>
Internal Conflict within India	<i>Develop capabilities to predict and diffuse communal violence</i>
Arrests of IM Personnel	<i>Better exploit intelligence gained from captured IM members</i>
IM Communications about its Terror Campaign	<i>Monitor IM communications for intelligence about future operations</i>
IM Claims of Responsibility	<i>Develop tools to determine veracity of claims of responsibility after attacks</i>
IM Conferences	<i>Disrupt and/or infiltrate conferences</i>
Membership of IM Personnel in other NSAGs	<i>Monitor movements of IM personnel to prevent their linking with other terrorist groups</i>

*Policies in black are indicators of an IM operation
 policies in red indicate potential counter-terror policies that could prevent attacks*

Policy Option Implementation I

Providing Warning

- Reduce the likelihood of attacks after arrests of IM personnel
 - Indian security should not refrain from arresting IM operatives, but these arrests could indicate an operation is in the works
 - Indian security should improve its ability to acquire intelligence from arrested IM operatives and disseminate the information throughout India's many security agencies
 - Publicity surrounding arrests should be minimized and possibly accompanied by misinformation campaigns to spread doubt within IM
- Monitor IM claims of responsibility & discussions of strategy
 - IM communications are an indicator of future IM attacks
 - They need to be monitored and analyzed in real-time using human and computational analysis, with findings quickly disseminated throughout India's national security system
- Preventing attacks when Indo-Pakistani diplomatic relations improve
 - India should heighten security during diplomatic initiatives with Pakistan, knowing terrorists may seek to undermine improved relations

Policy Option Implementation II

Preventing IM Operations

- **Monitor Internal Religious Conflict within India**
 - Outbreaks of communal violence appear to precede IM attacks
 - Indian security should use real-time text and sentiment analytics to monitor communal tensions and develop fast-reaction teams to intervene and forestall communal violence
- **Disrupt IM's Relationships with other Terrorist Groups**
 - Links with other terrorist groups have been essential IM's increasing lethality
 - India, working with other nations in the region, should build travel intelligence capabilities to identify when IM operatives are making contact with other terrorist groups
 - Better policies to induce Pakistan to cease supporting terrorist groups are needed
- **Infiltrate and Disrupt IM Conferences**
 - IM's operations require significant planning and are organized at meetings between the group's top operatives
 - Indian security must, whenever possible infiltrate and/or disrupt these meetings
 - Indian security could use cyber-operations to plant false information within the group, to spread internal dissension and decrease IM's operational effectiveness

Building an Indian National Counter-Terror Center

- Most of the policy options identified in this study require India to better collect, analyze, and disseminate intelligence in order to prepare for and pre-empt IM (and other terrorist) operations
- Numerous instances have highlighted the challenges India faces in using intelligence effectively for counter-terror operations
 - Mumbai's lack of preparation for a major terror attack in 2008, despite intelligence warnings
 - In December 2009, IM operations chief Yassin Bhatkal was arrested in Kolkata, but due to poor information sharing his identity was not known and he was released
- After 9/11, facing similar challenges the United States established a National Counter-Terror Center (NCTC)
- In 2009 the then-Home Minister of India P. Chidambaram called for establishing an Indian NCTC, but in India states have almost complete authority over police matters and the NCTC is seen as a threat to their prerogatives
- Despite political opposition, a central national counter-terror coordinating authority is needed to effectively reduce the danger of a sophisticated terrorist adversary such as IM

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