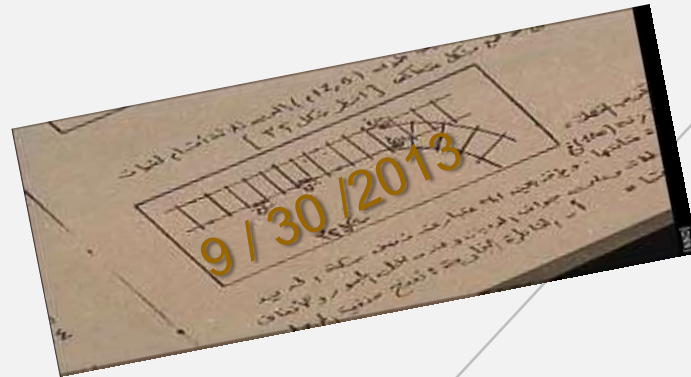



COMPARATIVE RISK ASSESSMENT OF TERRORISM AND NATURAL HAZARDS

Dr. Gordon Woo

CAS In Focus:
Elephants in the room
Chicago





TERRORISM MODELING OF A CONTROL PROCESS

Contrast with terrorism risk in Pakistan

WESTERN ALLIANCE

Security services in North America, Western Europe and Australia are professional, non-corrupt and dependable.

Only a small proportion of plots are not interdicted.

Terrorism risk is controlled by the security services, and is not at the whim of the behaviour of terrorists.

PAKISTAN

The security service, ISI, is utterly compromised by its longstanding support for Kashmiri terrorists.

Most plots are not interdicted.

Terrorism risk **IS** governed by terrorist behaviour.

US government departments and agencies responsible for security



MODELING OF THE CONTROL PROCESS

The RMS terrorism risk model has retained a stable conceptual structure ever since 2002, incorporating the following vital strategic elements:



- Iconic crowded places with name recognition are preferred targets.
- Attack frequency is mitigated by the interdiction of the great majority of terrorist plots.
- The occurrence of successful terrorist attacks is not Poissonian, because of the suppressive action of counter-terrorism force.

Suppressive counter-terrorism action as a response to terrorist attacks

- Security is ratcheted up to prevent another terrorist attack.
- Targets are hardened.
- More security staff are hired.
- More informants are recruited by the security and law enforcement services to obtain early warning of future plots.

Post 9/11 pro-active threat control

- Within weeks of 9/11, 1,200 Muslim and Arab non-citizens were arrested in the USA and detained.
- The US Department of Justice summoned for interview 5,000 non-citizen men from Arab and Muslim countries, on suspicion of harbouring terrorists.
- The Immigration and Nationalization Service required 80,000 non-immigrant aliens from Muslim-majority countries to be photographed, fingerprinted and questioned.
- **Over a period of 5 years, the FBI conducted more than half a million interviews with Arabs and Muslims.**

UK higher security state post-7/7/2005

Legislative changes: new criminal offences

- Acts preparatory to terrorism, e.g., making weapons
- Incitement to terrorism and hatred
- Giving or receiving terrorist training



Extra resources for the security service (MI5)

**Extra financial support and staff for the Metropolitan Police:
increase in armed officers and special units**

UK terrorist target hardening

£4 million was spent on security by the airport in the year after the terrorist attack



Glasgow airport, 30 June 2007



Liberty, law and security

Methods of questionable international legality have been used by the 'lawyer-in-chief' to take terrorist suspects off the battlefield and bring them to summary justice.



A lawsuit was filed in July 2012 by the American Civil Liberties Union (ACLU) and the Center for Constitutional Rights (CCR) on behalf of Nasser al-Awlaki, the father of Anwar.



Meta-data mining

“Analysts start with a suspect and spider-web outward, looking at everyone he contacts, and everyone those people contact, until the list includes thousands of names.

Before individuals are actually wiretapped, computers sort through flows of meta-data , information about who is contacting whom by phone or e-mail.”

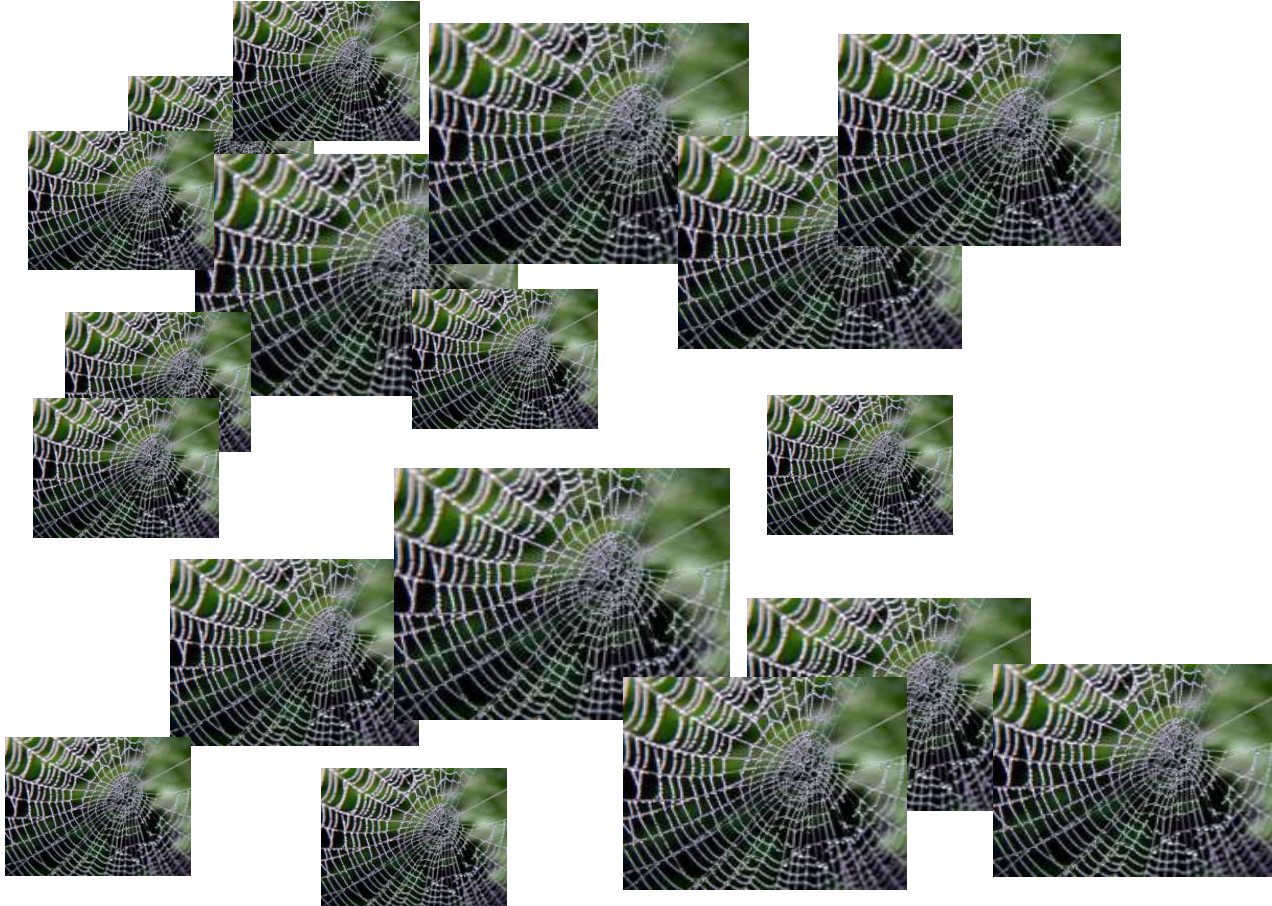
Ex-NSA staff member



On December 15, 2005, the New York Times disclosed that the National Security Agency taps phone calls to or from USA, if one party is believed to be linked with Al Qaeda.



Spanning the webs of known terrorists



The aggregated webs of known terrorists close in on any operatives planning new attacks against western alliance homelands.

'The Cream of the Cream of the Cream'

'A small group: they are the ones who carry convictions for this religion.'

An even smaller group are the ones who flee from this worldly life in order to act upon these convictions.

And an even smaller group from this elite group are the ones who sacrifice their souls and their blood.'

Abdullah Azzam
*Martyrs: The Building
Blocks of Nations*

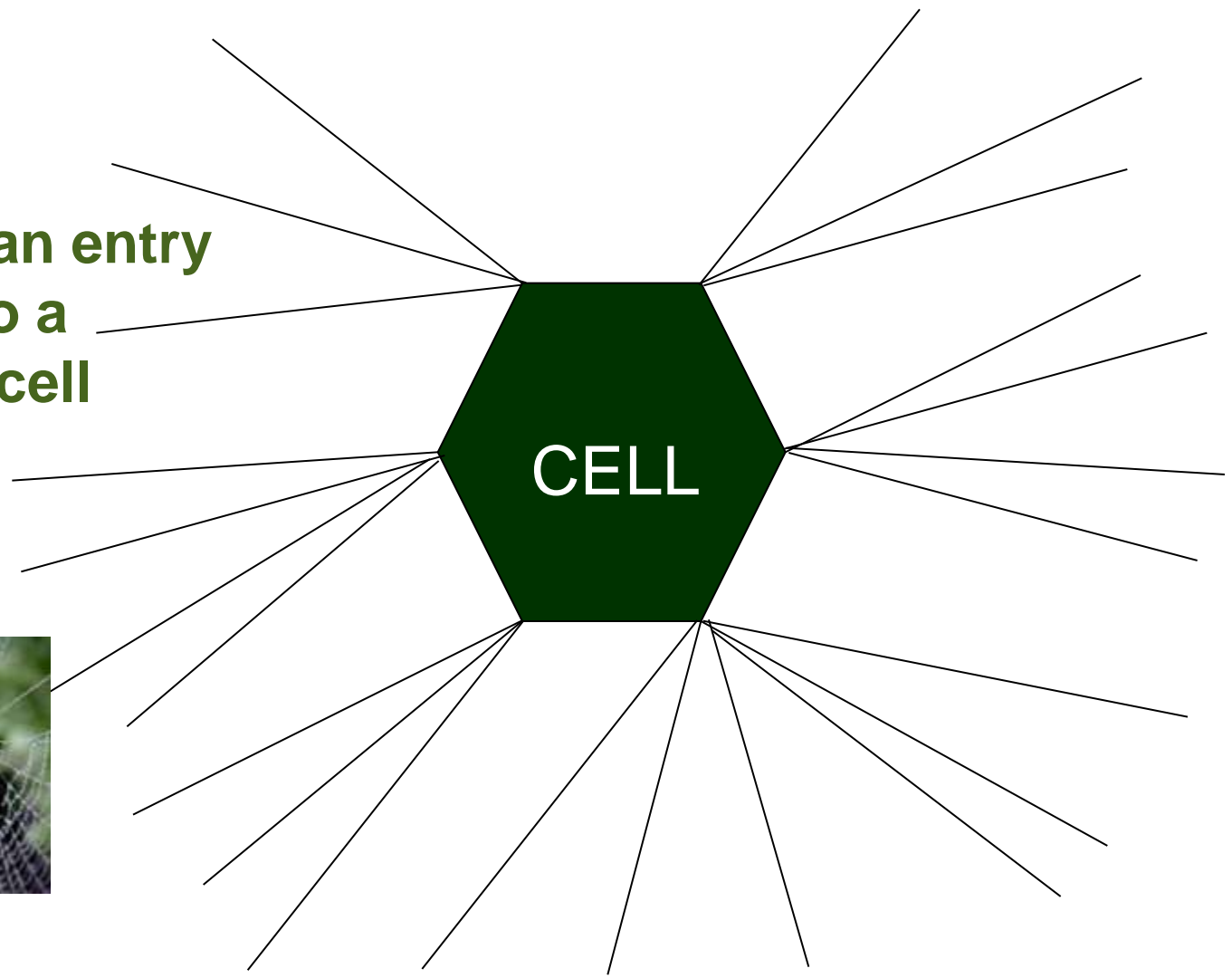


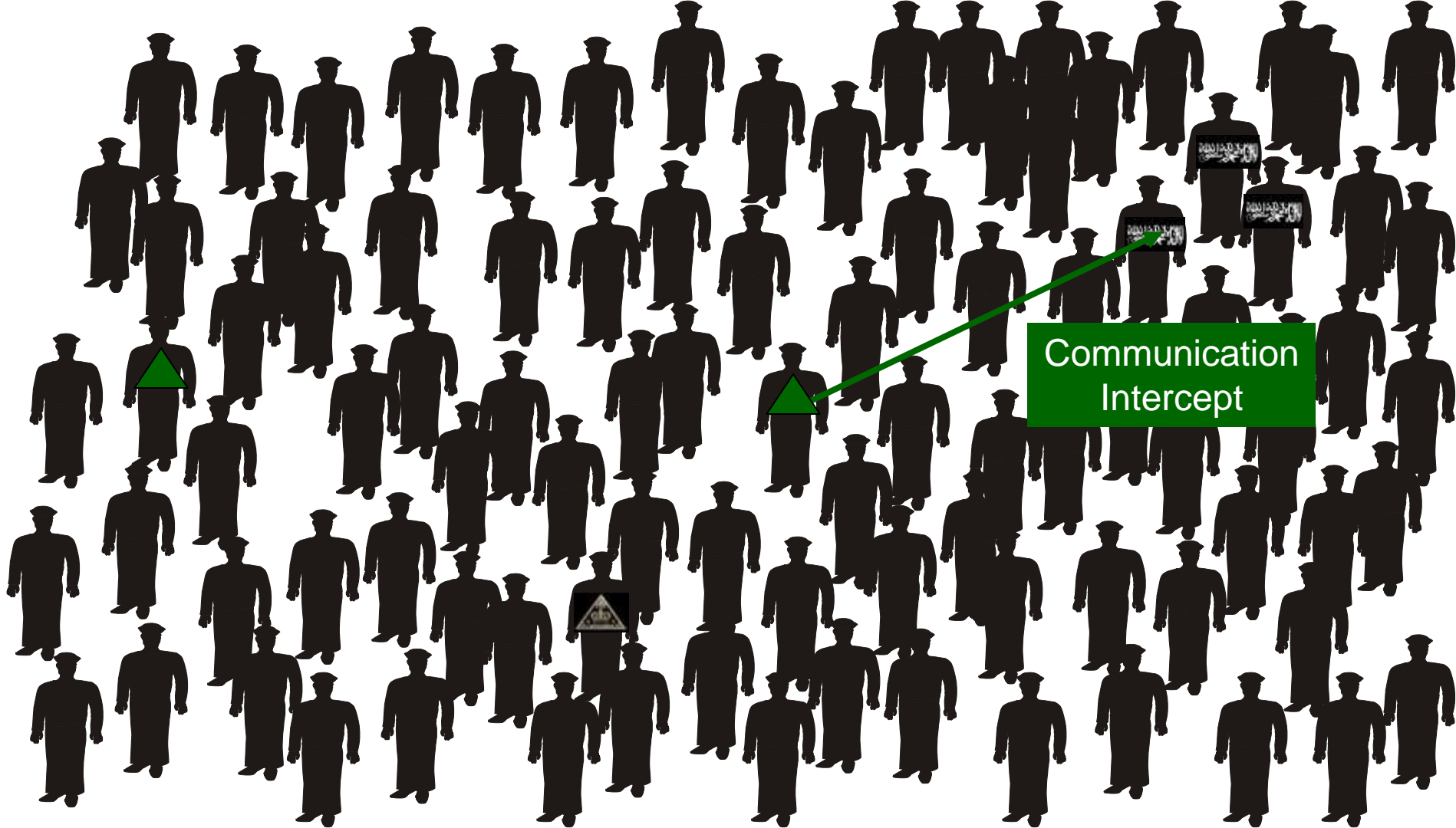
Jihadis

Supporters of an
Islamic State

Condoners
of terrorism

**Gaining an entry
point into a
terrorist cell**





Communication Intercept



Unwitting meeting with the security service

Kazi Rahman was arrested in November 2005 after trying to buy three Uzi sub-machine guns from an MI5 agent, posing as 'Mohamed'.

This purchase was intended to be followed by others, including a Sam-7 missile and Rocket-Propelled-Grenades.



Counter-terrorism use of local informants

On May 22, 2013, Michael Adebolajo was involved in hacking to death a British soldier, Lee Rigby, in London. He had been arrested in Kenya in 2010 in connection with an Al Qaeda plot.



Since then, he had been approached by MI5 to infiltrate radical extremist Islamic groups and act as an informant.



Andrew Parker
MI5 director general

Social network plot constraints



For terrorism in countries with effective intelligence services, hazard events are subject to the universal law of social networks, which apply as much to terrorists as to other groups in society.

The closeness of terrorist networks

“Six degrees of separation between us and everyone else on this planet. The President of the United States, a gondolier in Venice, just fill in the names.

I find it extremely comforting that we're so close.”

...but not for conspirators!



Zacharias
Moussaoui



DST:
Direction de la Surveillance
de la Territoire



Ibn Khattab

Chechnyan
Mujahideen



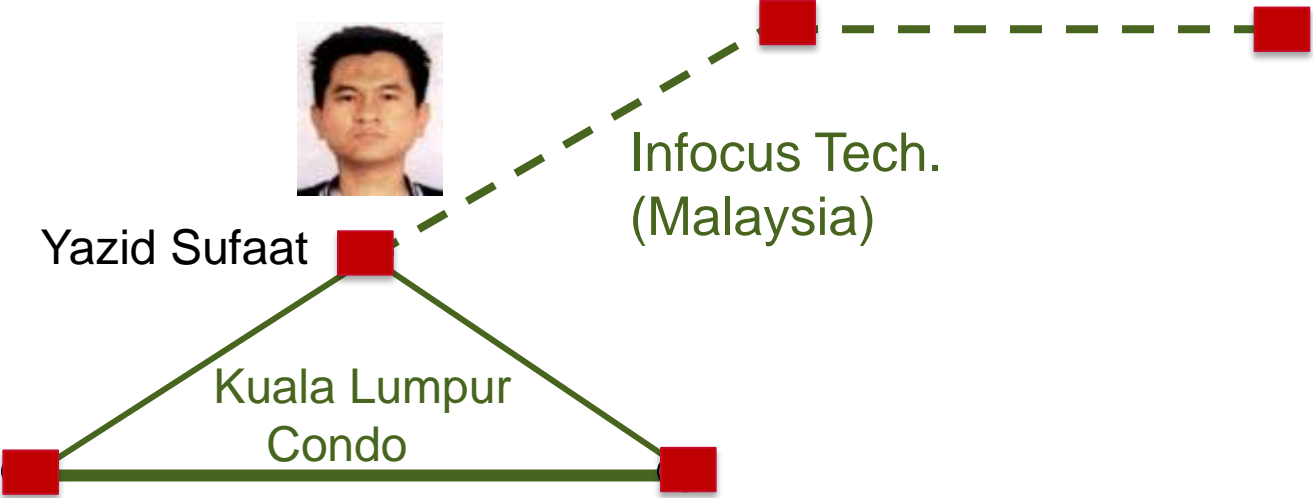
Yazid Sufaat

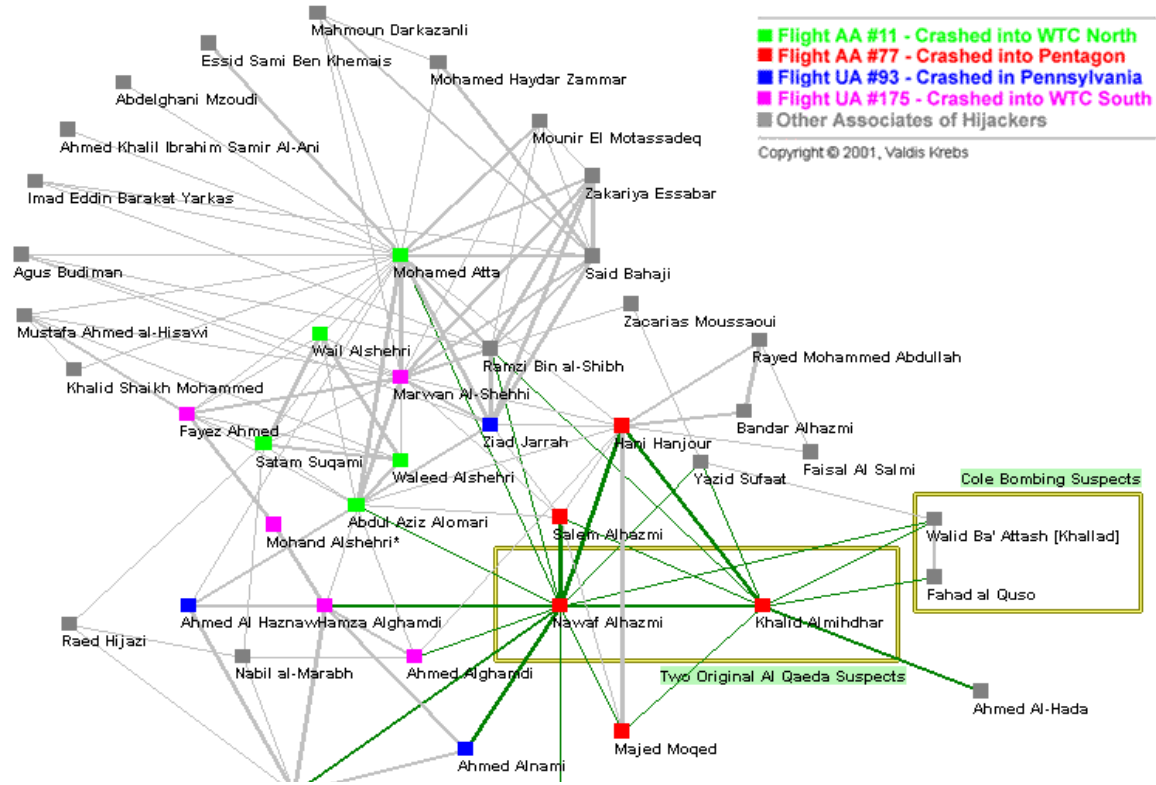
Infocus Tech.
(Malaysia)

Kuala Lumpur
Condo

Nawaf Al Hamzi

Khalid Al Midhar





All nineteen 9/11 hijackers were within 2 degrees of separation from two original suspects uncovered by CIA in 2000.

Social network downfall of Osama bin Laden

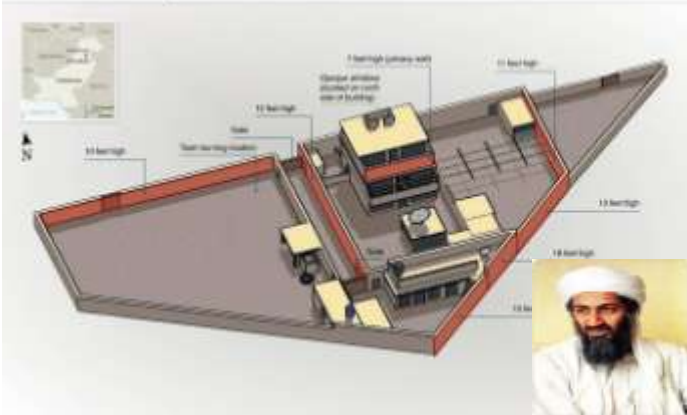


Old Friend

Intercepted
catch-up
phone call

Abu Ahmed al-Kuwaiti
COURIER

Illustration of Abbottabad Compound



Too many terrorists spoil the plot

Through indiscretion, each contact may provide an entry point into a plot network. The probability that a conspiracy is not compromised is the product of the likelihood of non-discovery by any external contact.

Cell Size	1	2	3	4	5	6	7	8	9	10
Plot Interdiction Probability	0.26	0.46	0.60	0.70	0.78	0.84	0.88	0.91	0.93	0.95

‘For a large operation against the US, pick a number of brothers not to exceed ten...’

Osama bin Laden

The law of social networks

For terrorism in countries with effective intelligence services, hazard events are subject to the universal law of social networks, which apply as much to terrorists as to other groups.

'The biggest threat is not so much that we face an attack like 9/11. It is that Al Qaeda is adapting its methods in ways that often make it difficult to detect. It's the lone-wolf strategy that I think we have to pay attention to as the main threat to this country.'

Leon Panetta, Director CIA

February 2, 2010

Norwegian lone wolf attack on Oslo

In July 2011, Anders Breivik exploited the lack of Norwegian societal awareness of a domestic terrorist threat.

His farming neighbours observed that he lacked even basic agricultural knowledge.



Tamerlan and Dzhokhar Tsarnaev

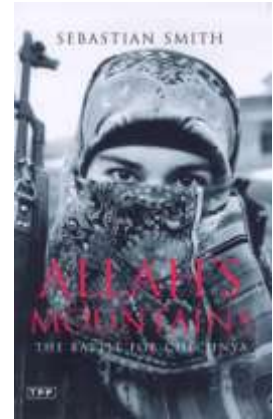
To minimize your social network footprint,
if you can't carry out the plot as a lone wolf, the
next best strategy is to enlist your kid brother....



William
Plotnikov



Zubeidat
Tsarnaev



FSB

Chechen Moscow airport attack

An IED was detonated in the baggage collection hall of Moscow's Domodedovo airport on 24 January 2011.

The suicide bomber managed to bypass a security point, and enter the baggage reclaim area.

This breach of security resulted in the deaths of 40 civilians and over 150 injuries.

This Chechen operation was aimed at arriving foreigners, and damaging the country's international reputation, ahead of the 2014 Winter Olympics.





Golden Goal Finance Ltd.

“I saw in a dream, that we were playing a soccer game against the Americans.

When our team showed up on the field, they were all pilots.”

Abu Al-Hasan

\$260 million issue to cover event cancellation of the 2006 FIFA World Cup in Germany.

Rated A3 by Moody’s.



For the Game. For the World.