Lecture 2: The Third Wave

Stephen M. Maurer
Goldman School of Public Policy
Tonight –

International Terrorism: 1960s - 1980s

The Third Wave

1. New Goals - **Terrorism as Warfare**
   - A Sensible Goal?
   - Technology Issues
   - Human Factors & Management

2. New Tactics - **Terrorism as a Business Model**
   - Entrepreneurs, Outsourcing & Venture Capital.
International Terrorism: 1960s – 1980s
Growth of International Terrorism

“No Alternative”
Failure of Conventional Wars
Failure of Terrorism Inside Israel
Press Bias in Favor of “International” Events.

Innovations
State Sponsorship
Professionalization of Terrorism
Terrorist Entrepreneurs (Carlos, Abu Nidal)
History

1968:
- PFLP terrorists hijack El Al flight from Rome.
- PFLP machine guns El Al Airliner in Athens, killing 1.

1969:
- Terrorists attack El Al plane at Zurich, killing 4.
- PFLP hijacks TWA flight after it leaves Rome.
- Al Fatah throws hand grenades at El Al office in Brussels.
- Hand grenade attack on El Al office in Athens kills 1.
1970:

- Unsuccessful attempt to hijack El Al plane from Munich. 1 Israeli killed.
- PFLP attacks El Al bus at Munich Airport, kills 1.
- PFLP blows up Swiss Airliner by accident, killing 47.
- Attack on Israeli Embassy in Paraguay kills 2.
- PPSF hijacks Greek plane.
- PFLP hijacks TWA, SwissAir, Pan Am, and BOAC planes carrying 400 passengers to Dawson’s Field in Jordan. Attempted hijacking of El Al flight fails. Passengers released after Swiss and British governments give in.
- PFLP hijacks BOAC plane from Bombay to Rome.
- Jordan expels PLO.
International Terrorism: 1968 - 1990

1971: - Black September assassinates Jordanian Prime Minister in Cairo.

1972: - Belgian airliner is hijacked to Tel Aviv. Israeli commandos storm plane, freeing hostages. One passenger and five soldiers are killed.
- PFLP and Japanese Red Army kill 27 civilians at Lod Airport.
- Munich Olympics Massacre. Eight Black September terrorists take 11 Israeli athletes hostage. Nine hostages and five terrorist are killed.
- Letter bomb to Israeli embassy in London kills 1.
- Al Fatah group hijacks Lufthansa flight from Beirut to Zagreb.
1973:  
- ~ 12 Israeli “Wrath of God” Assassinations  
  - Black September terrorists murder US ambassador to Sudan.  
  - Black September terrorists murder Israeli businessman in Cyprus.  
  - Terrorists attack El Al office in Rome, killing 1.  
  - Two Arabs send letter bombs to Israelis living in Britain and Holland.  
  - Black September terrorists attack passenger terminal in Athens, kill 3.  
  - Japanese Airlines Flight hijacked to Benghazi and destroyed.  
  - Five terrorists attack Saudi Embassy in Paris.  
  - Two terrorists take three Jewish immigrants hostage aboard a train to Vienna.  
  - Three terrorists hijack plane from New Delhi to Abu Dhabi.  
  - 5 terrorists attack terminal and destroy airliner at Rome airport killing 30 including 4 senior Moroccan officials and 14 American oil company employees.  Terrorists take five Italians hostage aboard Lufthansa airliner and hijack it to Beirut, Athens, and ultimately Kuwait.  1 hostage is killed.  Terrorists are allowed to escape to unknown destination.  PLO denies responsibility.  
  - Terrorist bomb Pan Am office at Rome airport, killing 32.
1974:
- PLO makes conciliatory statement implying Israel’s right to exist.
- PFLP, DFLP, ALF, PFLP-GC, PPSF form “Rejection Front.” Abu Nidal (who does not join the Front) begins assassination campaign against PLO officials.
- PFLP-GC seize Qirayat Shemona. 18 Israelis killed in rescue attempt.
- PFLP terrorists seize school at Ma’a lot. 27 Israelis are killed in rescue attempt.
- PFLP raids Shamir Kibbutz. Four terrorists and several Israelis are killed.
- Fatah terrorists attempt to land in Israel by boat. All are killed, along with three Israelis.
- Rejection Front hijackers hijack a British Airliner at Dubai. 1 German passenger is killed.
1975:  - PFLP/Carlos attacks Orly airport twice using rockets. Police frustrate second attack, which ends with Carlos seizing ten hostages in bathroom. Terrorists are allowed to take Air France flight to Iraq.
- PFLP-SOG/Carlos take OPEC Ministers Hostage. Saudi Arabia and Iran pay $20m+ ransom.

1976:  - RAF and PFLP seize Air France airliner with 258 passengers aboard. Israeli commandos storm the plane at Entebbe. 1 soldier and 3 passengers die.
- PFLP and JAL terrorists attack passenger terminal in Istanbul, killing 4.

1977 - Terrorists hijack Lufthansa aircraft. Pilot is killed. German special forces storm plane in Mogadishu, rescuing hostages, capturing 3 terrorists and killing one.
International Terrorism: 1968 - 1990

1978:  
- Al Fatah sea borne raid into Israel kills 26 civilians.  
- PFLP open fire on El Al passengers in Paris. 2 Frenchmen are killed.  
- PFLP attacks El Al crew bus in London, killing 1.

1979:  
- Attack on El Al passengers at Brussels Airport, no one killed.

1980:  
- El Al employee killed in Istanbul.  
- Attack on synagogue in Paris kills four.

1981:  
- Attack on synagogue in Vienna kills two.

1982:  
- Abu Nidal terrorists critically injure Israeli Ambassador to UK.  
- Abu Nidal terrorists attack synagogue in Brussels.  
- Abu Nidal terrorists attack synagogue in Rome, killing 1.

1983:  
- Truck bomb on US embassy in Beirut kills 63.  
- Simultaneous truck bombs kill 242 American and 55 French troops.
1985:
- Abu Nidal terrorists bomb British Airways Office in Madrid, killing 1.
- Abu Nidal terrorists assassinate British cultural affairs officer in Athens.
- Abu Nidal terrorists assassinate British official in Bombay.
- Grenade attack on Rome Café.
- PLO kills 3 Israeli tourists in Cyprus.
- El Al Staff at Heathrow find 1.5 kg. Semtex bomb in hand luggage. Three Syrian diplomats are subsequently arrested.
- TWA flight from Athens to Rome is hijacked to Beirut by Hezbollah terrorists. 145 passengers and 8 crew are taken hostage. 1 American sailor is murdered. Hostages are released after Israel frees 435 prisoners.
- Four PFLP terrorists hijack Achille Lauro taking 700 passengers and crew hostage. One US passenger is murdered. Egyptian government offers terrorists safe haven over US objections.
- Abu Nidal group hijacks EgyptAir flight from Athens to Malta. Egyptians take back the plane. 57 hostages and 3 terrorists are killed.
- Abu Nidal terrorists attack El Al and TWA counters in Rome and Vienna. 16 passengers and 4 terrorists are killed. Three terrorists surrender.
International Terrorism: 1968 - 1990

1986:
- Palestinian splinter group bombs TWA flight near Athens, killing 4 US citizens.
- Berlin Discotheque Bombing. Two US soldiers are killed. US bombs Libyan targets in retaliation.
- Abu Nidal attempts hijacking of Pan Am flight in Karachi, killing 22.
- Abu Nidal terrorists attack a synagogue in Istanbul, killing 22.

1988:
- Lockerbie Bombing. 259 passengers killed.
Goals

- Supporting Diplomacy
- Success or Misleading Example?
- Obtaining Concessions & “De-Railing the Peace Process”
- The Commitment Problem

Responses

- Targeted Assassinations & Preemptive Attacks
- Armed Confrontations
- Creation of Specialized Antiterrorist Units
State Sponsors (Pt. 2).
PFLP, DPFLP, Saiqa - $20-30m/year, 50 – 500 members.
Fatah - $150-200m/year, 7000 members.
Abu Nidal - State Sponsorship + Crime + Legitimate Businesses.

Libya
Munich & Various Hijackings
Libyan Arms Shipments
Four large shipments to IRA (1985 – 87)
~ 175 tons of weapons and Semtex explosives.

Also: Syria, Iraq, Iran, Sudan.
State Sponsorship

Impact on *Terrorists’* Goals.

Professionalization

More Terrorism?

Careerism & Non-Ideological Goals

More Constraints
State Sponsorship

Impact on *Sponsors’* Goals

Gives Small Governments A Foreign Policy Capability

Increases Nuisance Value

But Only if Sponsor Can Renounce.

Carlos: East Germany, Syria, Sudan

Drawbacks for *Sponsors*

Difficult to Terminate Sponsorship

Possibility of Miscalculation (El Dorado Canyon)

Small vs. Medium-Sized States

Inconsistent With WMD

Complicates Conventional Foreign Policy, Leading to Isolation.
International Terrorism: 1968 - 1990

Internationalization of Terrorism

Terrorist Summits
Cuba 1966; Lebanon 1972; Yugoslavia 1978; Lisbon 1981

Training Camps
Lod Airport Massacre
Mogadishu
International Terrorism: 1968 - 1990

Internationalization of Terror, *ctd.* ...

Making Terrorism Scaleable?
Comparative Advantage
Competition Between Groups
International Terrorism: 1960s - 1980

Why Did the Hijackings Stop?

Declining Publicity Value
Political Needs
Counterterrorism Units
<table>
<thead>
<tr>
<th>Year</th>
<th>Unit</th>
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</thead>
<tbody>
<tr>
<td>1972</td>
<td>22 SAS (UK), Gendarmerie Royale (Belgium)</td>
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<tr>
<td>1973</td>
<td>Grenzshutzgruppe-9 (West Germany),</td>
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<tr>
<td></td>
<td>Gendarmerie Kommando (Austria)</td>
</tr>
<tr>
<td>1974</td>
<td>Gendarmerie d’ intervention Genarmeier Nationale (France)</td>
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<tr>
<td>1975</td>
<td>Beradskaptroppen (Norway)</td>
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<td>1977</td>
<td>Delta Force (USA)</td>
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<tr>
<td>1978</td>
<td>Grupo Especail de Operaciones (Spain),</td>
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<td></td>
<td>Nucleo Operativo Centrale di Sicurezza (Italy)</td>
</tr>
<tr>
<td>1979</td>
<td>Grupo de Operacoes Especials (Portugal)</td>
</tr>
</tbody>
</table>
Pre-Munich Outcomes

Israeli: No-negotiation policy, hijackings become fewer but more violent.

European: 2 of 161 Palestinians arrested for acts of terror in third countries between 1968 and 1973 were actually punished. Hijackings are common but largely symbolic.

*Cf.* French Responses to ETA, Belgian Responses to IRA.
Post-Munich Outcomes
   Capability is Not Enough!
Deterrence Needs a Commitment Strategy.
   September 11 as Sequel

Sharing the Burden
   Achille Lauro
El Dorado Canyon

Why Did the Hijackings Stop?
Conclusions
Goals:

Revolution – Destroying and Replacing the State
Destroying the Economy
Publicity
Obtaining Concessions
Forcing Withdrawal
Foreign Intervention
Catalyzing Diplomacy
Supporting Major Military Operations
Publicity
Credibility
Blocking Political Solutions
Money
Holding Territory
Economic Goals

Conclusions
Conclusions

Countermeasures:

- Liberalization
- Public Opinion
- Rewards
- Informers
- Censorship
- Mass Arrests
- Mass Reprisals
- Internal Exile
- Surveillance
- Criminalizing Advocacy
- Targeted Assassinations & Preemptive Attacks
- Military Tribunals
- Torture
- Armed Confrontation
Conclusions

Terrorism is a Marginal Strategy.

Once Started, Terrorism Tends to Be Persistent.

State Power is Overwhelming, Even Modest Measures Are Effective.

Sanctuaries, Sponsors, and Crime Make Terrorism Dramatically More Persistent.

International Terrorism Weakens Traditional Constraints Against Violence.
The Third Wave –
Terrorism as Warfare
The Second Wave Contemplates Mass Violence
Libyan Arab Airlines Flight 114 (February 1973)
Operation Mt. Carmel (July 21, 1973)

Explanations
Classical Terrorism did not need mass violence. Mass violence was constrained by ideology, sympathizers, public opinion, and state sponsors.

The Third Wave is Different…
Is Warfare a Reasonable Strategy?

Thinking About Warfare.

No Good Theory
What Are the Important Variables?
The Lens of Casualties
Types of Warfare

1. Warfare Between Armies
2. Total Warfare
3. Limited Wars
4. Destabilization
5. Decapitation

What Was Bin Ladin Trying to Do?
Did Bin Ladin Want a Limited War?
Did Bin Ladin Get a Total War?
1. Warfare Between Armies
   Pre-Modern Wars
   An Economic Impossibility
2. Total Warfare

French Revolution to World War II
Mass Armies
Strong Defense Advantage
Mobilization & Attrition
Total Warfare: 19th Century

Napoleonic Wars

**Totals:** 1.4 million French soldiers (5% of population)

**Rates:** 25 year campaign

400,000 Allied Soldiers died in Russia.

~ 1 million on both sides (including civilians)

**Shocks:** 10,000 French soldiers killed at Waterloo

5,500 Allied soldiers killed at Waterloo

**Results:** Resilience of the Modern State.
Total Warfare: 19th Century

American Civil War

**Totals:** 360,000 Union Soldiers (1.4%)  
200,000 Confederate Soldiers (2.5%)

**Rates:** A 4 Year Campaign

**Shocks:** Battle of Antietem: (7,000 Union,  
3,000 Confederate KIA)

**Results:** Resilience of the Modern State
Total Warfare: World War I

**Totals:**
- 1.7 million French soldiers (4.4%)
- 2 million German soldiers & civilians (3.1%)
- 1 million British & Empire soldiers (2.4%)
- 1.5 million Austrian soldiers (2.9%)

**Rates:**
- 434,000 German soldiers were killed in 1915.

**Shocks:**
- First Day of the Somme: 19,240 British soldiers killed.

**Results:**
- Germany, Austria-Hungary, Russia, France.
Total Warfare: World War II

<table>
<thead>
<tr>
<th>Country</th>
<th>Casualties</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>405,000 soldiers (0.4%)</td>
<td></td>
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<tr>
<td>USSR</td>
<td>7 million soldiers + 23 million civilians</td>
<td>4.2% + 13.8% = 18%</td>
</tr>
<tr>
<td>Britain</td>
<td>300,000 (0.6%)</td>
<td></td>
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<tr>
<td>Germany</td>
<td>3.5 million soldiers killed (5%)</td>
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<tr>
<td></td>
<td>1 million civilians killed (1%)</td>
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<tr>
<td></td>
<td>305,000+ civilians killed by bombing (0.4%)</td>
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<tr>
<td>Japan</td>
<td>2 million all causes (2.7% of population)</td>
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<tr>
<td></td>
<td>900,000 killed in strategic bombing (1.2%)</td>
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</tbody>
</table>
Total Warfare: World War II

Rates:

US: 400 soldiers/day (~ 1 WTC attack/week!)
London Blitz: 95 civilians/day

Shocks:

Hamburg (1943): 60-100,000 civilians killed.
Okinawa (1945): 18,900 American soldiers killed.
Hiroshima (1945): 80 - 100,000 civilians killed.
Operation Olympic (1946 - projected): 100,000 American soldiers killed.
Total Warfare: World War II

**Results:** US, Germany, Italy
Resilience of the Nation State

**Results:** USSR
Lack of Alternatives

**Caveats:** Has The World Changed?
Not So Long Ago…
Electronic Media
The Somme
Total Warfare:  World War II

**Results:** Japan

High technology, state-sponsored suicide.

Okinawa: 3,000 sorties, 300-plane waves, 36 ships sunk, 368 ships damaged, 4,900 US sailors dead, 4,824 wounded.

Why the Emperor Surrendered.
3. Limited Wars

Boer War: 21,000 British soldiers killed (0.05%)

Vietnam:
- Total: 58,000 US soldiers killed (0.03%)
- Rate: 16,869 US soldiers killed in 1968.
- Shock: 543 US soldiers killed (Tet Offensive)
Total vs. Limited War

“If Great Britain goes down, the Axis powers will control the continents of Europe, Asia, Africa, Australasia and the high seas – and they will be in a position to bring enormous military and naval resources against this hemisphere. It is no exaggeration to say that all of us in the Americas would be living at the point of a gun.”

Franklin D. Roosevelt
December 12, 1940
Total Warfare: World War II

Total vs. Limited War

Japan’s Attrition Strategy

The Commitment Problem

Challenging the Status Quo: Napoleon & Hitler
4. Destabilization

Funding Challengers, Disinformation
Guatemala (1954)
Cuba & Eastern Europe
Western Democracies
5. Decapitation

Cold War Fears

Katyn Forest

1 admiral, 2 generals, 24 colonels, 79 lieutenant colonels, 258 majors, 654 captains, 17 naval captains, 3,420 NCOs, 7 chaplains, 3 landowners, 1 prince, 43 officials, 85 privates, and 131 refugees, 20 university professors, 300 physicians, several hundred lawyers, engineers, and teachers; and more than 100 writers and journalists; 200 pilots.

~ 5,000 Murders, nearly one-half the Polish officer corps.
Implications:

Minimum Required Casualties:

*Limited War:* 10s of Thousands of Killed + Commitment Strategy

Al Qaeda’s Ambitions

*Total War:* 100s of Thousands of Killed

Bin Ladin’s Estimate
Technology Issues
Conventional Terrorism

Candidate Technologies
- Repeated Attacks
- WMD
- Complexity?
Repeated Attacks

Repetition Rates x 100
Countermeasures
Large Public Spaces
Conventional Terrorism

WMD?

- WMD (Pt. 1): Chemical, Biological & Radiological Weapons
- WMD (Pt. 2): Nuclear Weapons (66,000 – 100,000 dead)
True WMD is Hard!

The Idea of WMD:
  Heinzen, Fenians, Anarchists, Social Revolutionaries
  Richard Feynman’s Depression

Technology and Industrial Resources
  Nuclear Weapons
  Radiological Weapons
  Chemical Warfare
  Biological Weapons

Difficult, But Not Impossible.
Vulnerability in Complex Societies

The Power Lines Argument

Some History

Norman Angell, *The Great Illusion* (1911)
Churchill & The Admiralty
Sabotage at Black Tom
US Strategic Bombing (Germany, Vietnam)
Nazi Saboteurs
Terrorists in the 1960s
  PLO, IRA, New World Liberation Front, ELN (Colombia), *etc.*
Rational Agent Models

Searching for the Magic Tree
Human Factors & Management
What’s So Hard About Terrorism?
(and why does it take so long…)

Human Factors & Management
Overview

Prob (Success) = Prob (Step 1) \times Prob (Step 2) \\
\times Prob (Step 3) \ldots

Common Obstacles

Management Techniques

Complex Operations
First Answer: Terrorism Isn’t Hard at All …

- Eric Meunta (1915)
- Carlos (1970s)
- Unabomber (1990s)

Not Scaleable!

- Japanese United Red Army (1972)
- Jamal Ahmed al Fadl & L’Houssaine Kherchtou (1990s)
- IRA (1970s – Present)

Obstacles:
- People
Implications for Defense
Protecting Informants
Rewards

Obstacles:
People
<table>
<thead>
<tr>
<th>Movement</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peoples Will (1880s)</td>
<td>Bombmakers Rokotilov and Dembov die in separate accidents.</td>
</tr>
<tr>
<td>Fenians (1884)</td>
<td>Three Fenians die trying to bomb London Bridge</td>
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<tr>
<td>Anarchists (1893)</td>
<td>Vaillant blows himself up attempting to bomb Chamber of Deputies</td>
</tr>
<tr>
<td>Social Revolutionaries (1905)</td>
<td>Bombmaker Schweitzer dies in accident.</td>
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<tr>
<td>Organization</td>
<td>Event Description</td>
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<tr>
<td>Red Army Faction (1976)</td>
<td>Terrorists holding Stockholm embassy detonates explosives prematurely; explosion causes second accident involving grenade.</td>
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<tr>
<td>Group</td>
<td>Year</td>
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<td>---------------------</td>
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<tr>
<td>Al Qaeda</td>
<td>1995</td>
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<tr>
<td>Al Qaeda</td>
<td>1999</td>
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<tr>
<td>Islamic Jihad</td>
<td>1990s</td>
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<tr>
<td>Al Qaeda</td>
<td>2005</td>
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</table>
Implications for Defense

Embargos

Air-to-Air Missiles

Encryption

Obstacles:

Technology
Obstacles: Tradecraft

Third Answer: Tradecraft

1974 IRA: Bomber panics and runs away after spotting security at Ritz Hotel.

1975 IRA: London police spot and chase suspicious man. Resulting manhunt uncovers weapons, cash, and name of a cell member.

JRA: Two terrorists arrested in Stockholm while photographing and carrying out surveillance on embassies.

1978 IRA: Civilians report explosives cache; 3 terrorists are arrested when they arrive to inspect it.
Obstacles:

RAF: Civilians find and report weapons cache.

IRA: Policeman shot during routine traffic stop.

IRA: Policeman shot after stopping suspicious van.

IRA: Irish police spot two car bombs before they can be driven north.

Al Qaeda. Border stop foils Millennium Bomb plot.

1982  
IRA: Policeman shot during routine traffic stop.

1992  
IRA: Policeman shot after stopping suspicious van.

1993  
IRA: Irish police spot two car bombs before they can be driven north.

1998  
Al Qaeda. Border stop foils Millennium Bomb plot.

1999
Implications for Defense
CAPPS and Profiling
Police Presence & Rousting Suspects
“Disrupting Attacks”
Airport Screening
Customs
Visas
Video Surveillance
National Identity Cards

Obstacles:
Tradecraft
Fourth Answer: Combat

Combat is Hard

Entebbe, Mogadishu, etc.

Killing is Hard

SAC, SAS, World War II Infantry, Nazi Saboteurs

Suicide is Hard

Al Qaeda
Required Success Rate

Why Not Use Flight Sims?

Protecting Good Ideas

Casualties, Futility, Ridicule
Management Techniques: Preparation

First Answer: Preparation

Staff Work & Intelligence
Selectivity
Second Answer: Training

Human Material
Recruitment, Training & Discipline
Training People to Kill
Training People to Die
Training People to Kill

Lying & Drugs
Firing Squads
Simulation & Training
Madness in Small Groups
Cults, Stockholm Effect, Military Discipline

Ideology & Dogma

Karl Heinzen (1849): Terrorists can have no room for love, friendship, gratitude, or honor – only the revolutionary cause.
W.B. Yeats

“Hearts with one purpose alone/Through summer and winter,
seem/Enchanted to a stone/To trouble the living stream.”

“And what if excess of love/Bewildered them till they died?”

- Easter 1916

“I know not what the younger dreams -/Some vague Utopia - and she seems,/ When withered old and skeleton-gaunt,/ An image of such politics. ”

- In Memory Of Eva Gore-Booth And Con Markiewicz
Training People to Die

Suicide Weapons
The World Wars
Religion & Nationalism
Commitment

What We Know About Suicide
The Werther Effect – The Power of Examples
Farewell Letters and Other Commitment Strategies

Madness of Small Groups

Sacrifice & Atonement?
Management Techniques: Supervision

Third Answer: Supervision

Why Managers?
- Access to “Big Picture” Strategy
- Representing the Organization
- Psychological Needs

Management vs. Security
- Invisibility vs. Capability
- Cells & ASUs
Complexity and Risk

Suicide Bombers
  ~ 25% failure rate.
Islamic Jihad vs. Hamas
The Wall

Bombings
  IRA ASUs

Assassinations
  Attacks on Hitler
  Iranian Assassination Squads
  ~ 50 – 70% failure rate?

Truck Bombings
  Al Qaeda Attack on *The Sullivans*
Kidnappings
  Red Brigades
Hijackings
Complex Operations
  Nazi Saboteurs
  9/11
The Nazi Saboteurs

Eleven Man Team
  Stability, Language, Technical Skills
  Sympathizers

Training and Equipment
  Raid
  Willingness to Kill
  Security
    Money, Family & Friends, Girls, Liquor, Fear.

Results

Complex
Attacks
Al Qaeda

Mid-1996: KSM pitches plots to Bin Laden. Ideas include car bombings, political assassination, hijackings, reservoir poisoning, and suicide hijacking of airliners.

1998: Bin Laden approves Sept. 11 Plot. KSM begins work but continues to develop other ideas. Al Qaeda performs successful trial run at NY airport.

Afghan “Pilots”
Hamburg “Pilots”
Other “Pilots”
“Muscle” Hijackers

Mid-1999: KSM researches Western aviation magazines, flight schedules, and flying schools. He gives Hazmi, Abu Bara, and Khallad basic training in English phrases, reading phone books, renting apartments, etc.

1999: Yemeni citizens Khallad and Abu Barra cannot obtain visas and are unable to learn English. Bin Laden insists that they play a role. KSM invents second airline bombing plot that requires neither pilot training nor English.
Mid-1999  Yemeni police arrest Khallad by mistake as part of the Cole investigation. Khallad’s father gets him released.

Nov. 1999  Mohammed Atta, Ramzi Binalshibh, Marwan el Shehhi, and Ziad Jarrah travel to Afghanistan to volunteer for Jihad.

January 2000  Hazmi and Mihdar enter the US. KSM relaxes security so that they can receive support from San Diego Mosque.

Spring 2000  Hani Hanjour arrives in Afghanistan training camp and is recruited to the plot. Atta applies for USDA loan.

March 2000  Mihdar starts “ranting and raving” over a security deposit.
May 2000: Hazmi and Mihdar give up trying to learn English. Flight school becomes impossible.

June 2000: Mihdar goes AWOL and tells his cousin that Bin Laden is planning five attacks in the US. Bin Laden prevents KSM from firing him.

June 2000 Hazmi is bored in Mihdar’s absence and asks KSM for permission to search for a wife on the Internet. He tells a coworker that that he will “become famous.”

May 2000 – January 2001 Atta, el Shehhi and Jarrah complete flight training. Atta is a rude and abusive student. Fourth Hamburg plotter fails to obtain entry visa.
October 2000

KSM sends Moussaoui to Malaysia for flight training, but Moussaoui decides to work on a different plot instead. KSM recalls Moussaoui, and sends him to the US for flight training. Interviewed by FBI on August 15 2001 and arrested on immigration charges the following day.

2000-2001:

Bin Ladin chooses “muscle hijackers.” Nine other hijackers are selected who do not participate because they fail to obtain travel documents, back out, or are removed by the leadership. Pilot hijackers meet muscle hijackers and help them rent apartments, etc.
Complex Attacks

Summer 2001: Atta, el Shehhi, al Hamzi, Jarrah, and Hanjour make at least six trips to Las Vegas.

Sept. 11, 2001: Hanjour, Mihdar and one muscle hijacker are flagged by CAPPS. Fourth airliner hijacking fails.

Results.
Israeli “Wrath of God” Teams

Recruitment

Israeli Army.

Training

1 year basic course, 15% graduate.

Hyper-Realism

Discipline
“Wrath of God” Teams *ctd*...

<table>
<thead>
<tr>
<th>Role</th>
<th>Members</th>
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<tbody>
<tr>
<td>Aleph (Killers)</td>
<td>2</td>
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<tr>
<td>Beth (Guards/Getaway Personnel)</td>
<td>2</td>
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<tr>
<td>Heth (Logistics)</td>
<td>2</td>
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<tr>
<td>Ayin (Surveillance &amp; Planning)</td>
<td>6 – 8</td>
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<tr>
<td>Ooph (Communications)</td>
<td>2</td>
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</table>

**Results:** Simple Task, Complete Surprise, ~90% Effective.
Implications

Violence – and especially complex violence – is difficult.
Radical improvement is unlikely.
Small defensive steps matter.
  Visas, CAPPS, willingness to inform authorities, surveillance.
Entrepreneurs, Outsourcing & Venture Capital
Outsourcing & Venture Capital

Al Qaeda: Grants, Venture Capital & In-House Funding
The (Non)-State Sponsor
Startups
Entrepreneurs
Mergers & External Innovation

In-House Projects
The Cole Bombing (1999)
9-11 Attacks (2001)

Evading Limits to Growth?
The Financial War
Outsourcing & Venture Capital

New Problems

Ronald Coase & The Theory of the Firm

The Downside of Professionalism
Jamal Ahmed al Fadl & L’Houssaine Kherchtou

Agency Problems
Competing Start-Ups
The Uranium Fraud

Coordination Problems
The Jordanian Millennium Plot
The Canadian Millennium Plot
Does Al Qaeda Outsource Because It’s Efficient…

Or Because it Has To?

Or Because it Provides Status?
Conclusion: The Fragility of Terrorism?
Conclusion

Is Terrorism Fragile?
- Economies of Scale
- Members, Recruits, Sympathizers
- Success, Horror & Ridicule

Is Terrorism Self-Limiting?
- Messianic Expectations, Example, and Futility
- A Generational Cycle?
Further Reading

Terrorism Theory

____________, *No End to War: Terrorism in the Twenty-First Century* (Continuum: 2004)

Terrorism History

Peter Harclerode, *Secret Soldiers: Special Forces in the War Against Terrorism* (Cassell: 2000)
David Tinnin, *The Hit Team* (Dell: 1976)
Further Reading

Terrorism History, *ctd.*


Further Reading

Intelligence


Saboteurs

Jules Whitcover, *Sabotage at Black Tom*

Suicide & Suicide Weapons

Further Reading

How Wars End


Further Reading

Complexity

*The United States Strategic Bombing Survey*, available at [http://www.anesi.com/ussbs02.htm](http://www.anesi.com/ussbs02.htm)

Casualties


Flight Simulators & Terrorism

Further Reading

W.B. Yeats
