



Terrorist Use of Chemical and Biological Weapons

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February 2003**

Sand No. 2003-0524P

Sandia is a multiprogram laboratory operated by Sandia Corporation, a Lockheed Martin Company,
For the United States Department of Energy under contract DE-AC04-94AI8600





Overview

- **CW Terrorist Groups**
- **BW Terrorist Groups**
- **Agent Choices**
- **Motives for Use**
- **Consequences of Use**
- **Future Threat of CBW Terrorism**

Chemical Weapons Terrorism

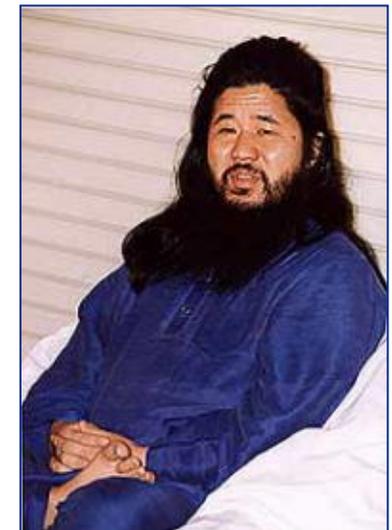
- Terrorist and criminal use of CW increasing
- Apocalyptic groups
 - Aum Shinrikyo, Japan (1995)
 - Restoration of the 10 Commandments, Uganda (2000)
- Political groups
 - Hamas/Hizbollah, Middle East (2000-present)
 - Western Group of Federal Forces, Chechnya (2000)
 - Revolutionary Armed Forces of Colombia (2001)
 - Al Qa'ida (2001-present)?



Al Qa'ida Dog Gassing Video



Chechen Rebel



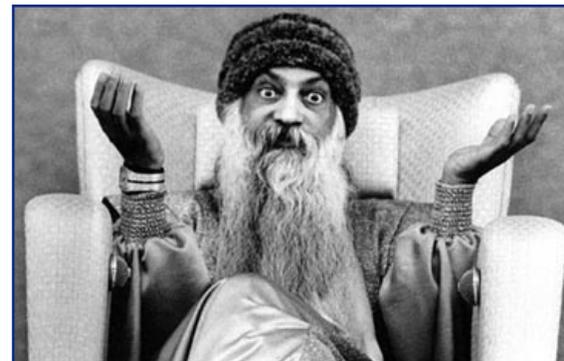
Aum Shinrikyo

Notable Non-State CW Incidents

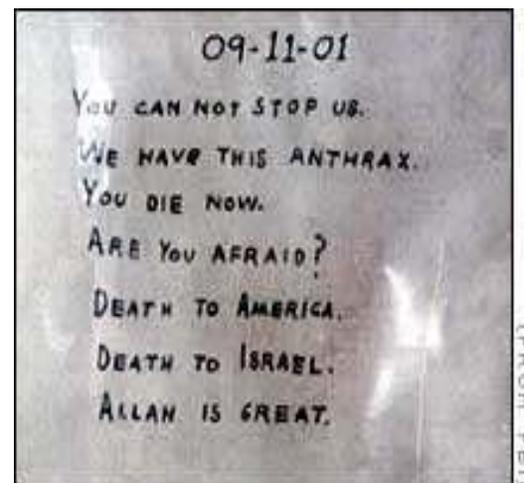
User	Type of Group	Year	Agent(s)	Relative Success
AUM SHINRIKYO	RELIGIOUS CULT (APOCOLIPTIC)	1994-1995	SARIN (GB), VX	1,500-2,000 CASULTIES, 22+ FATALITIES
HAMAS / HIZBOLLAH	POLITICAL	2000-2002	RAT POISON	0 CASULTIES OR FATALITIES (CHEMICAL BURNS UP IN SUICIDE EXPLOSION)
RESTORATION 10 COMMANDMENTS (UGANDA)	RELIGIOUS CULT (APOCOLIPTIC)	2000	SULFURIC ACID / BATTERY ACID	778 FATALITIES
WGFF (CHECHNYA)	POLITICAL	2000	CHLORINE	0 CASULTIES OR FATALITIES (PLOT FOILED)
FARC (COLUMBIA)	POLITICAL	2001	CHLORINE	1 CASUALTY, 4 FATALITIES
AL QA'IDA	POLITICAL	2002	HYDROGEN CYANIDE	VIDEOTAPE OF A DOG BEING GASSED
UNKOWN (AL QA'IDA?)	POLITICAL	2003	RICIN	0 CASUALTIES OR FATALITIES (PLOT FOILED BUT MOST OF AGENT BELIEVED TO BE MISSING)

Biological Weapons Terrorism

- In general, BW terrorism less successful and less devastating than CW terrorism
- Religious groups
 - Rajneeshees, Oregon, US (1984)
 - Aum Shinrikyo, Japan (1995)
- Unknown perpetrator
 - *Bacillus anthracis* attacks in U.S. (2001)
- Overwhelming majority of WMD terrorist hoaxes involve biological weapons
 - 603 of 628 incidents in 2001 (96%)



Bhagwan Shree Rajneesh



U.S. Anthrax letter

Non-State BW Incidents

Individual/Group	Type of Group	Year	Agent(s)	Relative Success
Pancho Villa	Nationalist-Separatist	1910	Botulinum toxin	Unknown
Palestinian Jewish Groups	Nationalist-Separatist	1947	<i>Vibrio cholerae</i>	Unknown
Mau-May	Nationalist-Separatist	1952	African Milk Brush	Eight steers killed
Dark Harvest	Single-issue	1981	<i>Bacillus anthracis</i>	Unsuccessful
Rajneeshee	Religious	1984	<i>Salmonella typhimurium</i>	776 people sickened
The Breeders	Single-issue	1989	Medfly	Unknown
Aum Shinrikyo	Religious	1990-1995	Bot Tox, <i>Bacillus anthracis</i>	Unsuccessful
Afghani Warlord	Nationalist-separatist	1995	Hepatitis	Unknown
Unknown-Nazi Sympathizers	Right-wing	1999	Unspecified medical waste	Unsuccessful
Dan Savage	Lone actor/SI	2000	Influenza	One person sickened (unrelated)
Palestinians	Nationalist-separatist	2000	Salmonella	Unknown—operational for 18 mos.
Israeli settlers	Nationalist-separatist	2000	Sewer Water	Possible crop damage
Unknown	Unknown	2001	<i>Bacillus anthracis</i>	22 killed/injured



Non-State BW Possession Examples

Individual/Group	Type of Group	Year	Agent(s)
RISE	Single-issue	1972	Salmonella typhi
Minnesota Patriots Council	Right-wing	1995	Ricin
Thomas Lewis Lavy	Right-wing	1995	Ricin
Larry Wayne Harris	Right-wing	1995	Yersinia pestis
James Dalton Bell	Right-wing	1997	Ricin, botulinum toxin
PKK	Nationalist-separatist	1997	E. coli, botulinum toxin
Thomas c. Leahy	Lone Actor	1997	Ricin, “killer virus”
Hamas/Hezbollah	Religious/Nationalist-separatist	1997/1998	Unspecified BW components
PKK	Nationalist-separatist	1998	Cobra poison
Chechen Rebels	Nationalist-separatist	2000	Unspecified “biological agent”

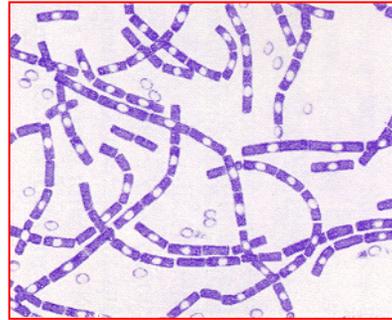
Agents Used in Terrorist Incidents

- **Chemical agent choices**

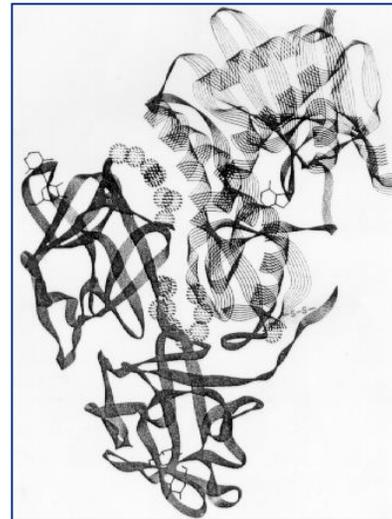
- Chlorine
- Cyanide
- Rat poison
- Ricin

- **Biological agent choices**

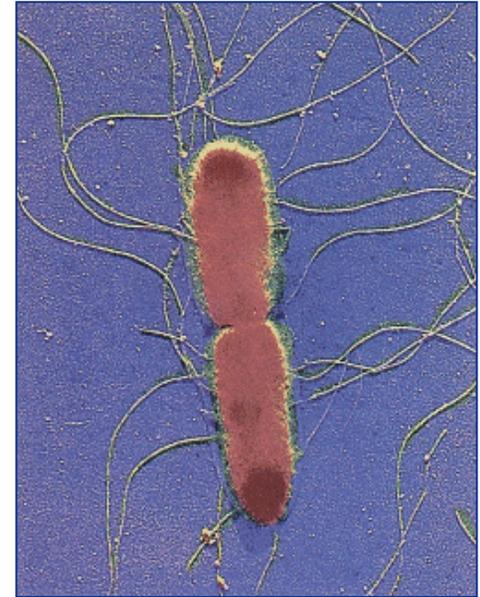
- *Salmonella typhimurium*
- *Bacillus anthracis*
- *Botulinum toxin*
- *Yersinia pestis*



Bacillus anthracis



Ricin



Salmonella typhimurium



Yersinia pestis

Terrorist Motives and Event Consequences

- **CW terrorism – motives**
 - Apocalypse, doomsday cults
 - Targeted (specific group)
- **CW terrorism – consequences**
 - 10s-100s of fatalities, 100s-1000s of casualties
- **BW terrorism – motives**
 - Assassination, instill fear
 - Targeted (specific individual/group), localized event
- **BW terrorism – consequences**
 - Less than 10 fatalities, less than 100 casualties
 - Unwilling or unable to cause a mass casualty BW event?





Historical Record and Future Threat

- **Based on historical record, religious/apocalyptic groups pose the greatest threat (e.g. Rajneeshees, Aum Shinrikyo)**
- **Globally, terrorists generally have preferred the “instant” gratification of explosives**
 - **Many non-WMD alternatives available to terrorists**
- **Terrorists tend to use CBW that**
 - **Require little educational training**
 - **Require little manipulation**
 - **Are easily deployed (crude dissemination methods)**
- **Chemicals are the terrorist CBW agents of choice**
 - **Most biological cases are hoaxes**
- **U.S. anthrax attacks a watershed?**
 - **Sophisticated biological processing and dissemination techniques**
 - **Lack of restraint to cause mass casualties**

Other Aspects of CBW Terrorism Threat

- Dual use agents and technologies
- Wide access to CBW information
 - Internet resources and “how to” books
- Relatively low cost
 - Little infrastructure required for CBW
- High consequence pathogens and toxins stored and used in laboratories and culture collections throughout world
 - Frequent outbreaks of exotic, highly infectious disease
- Large stockpiles of chemical agents in Russia under questionable security
 - Most chemical agents widely available
- Unemployed weapons engineers from FSU and elsewhere may be hired by well funded terrorist organizations

