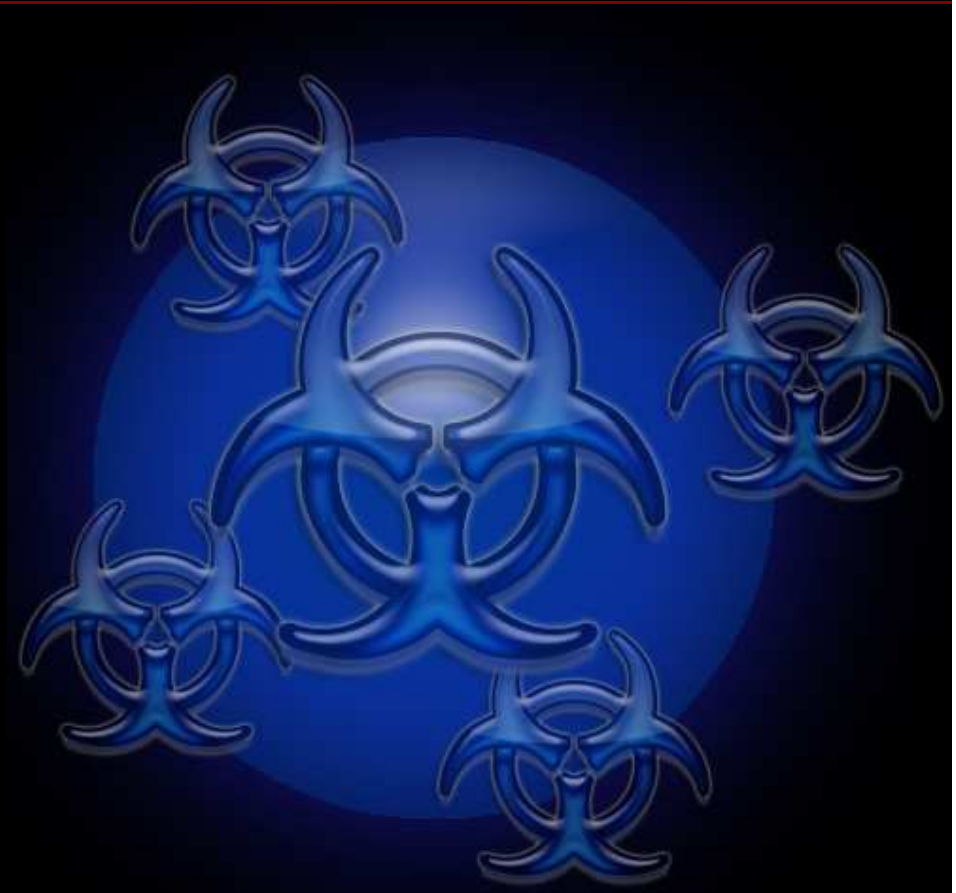
The Biological Weapons Convention

Overview and prospects



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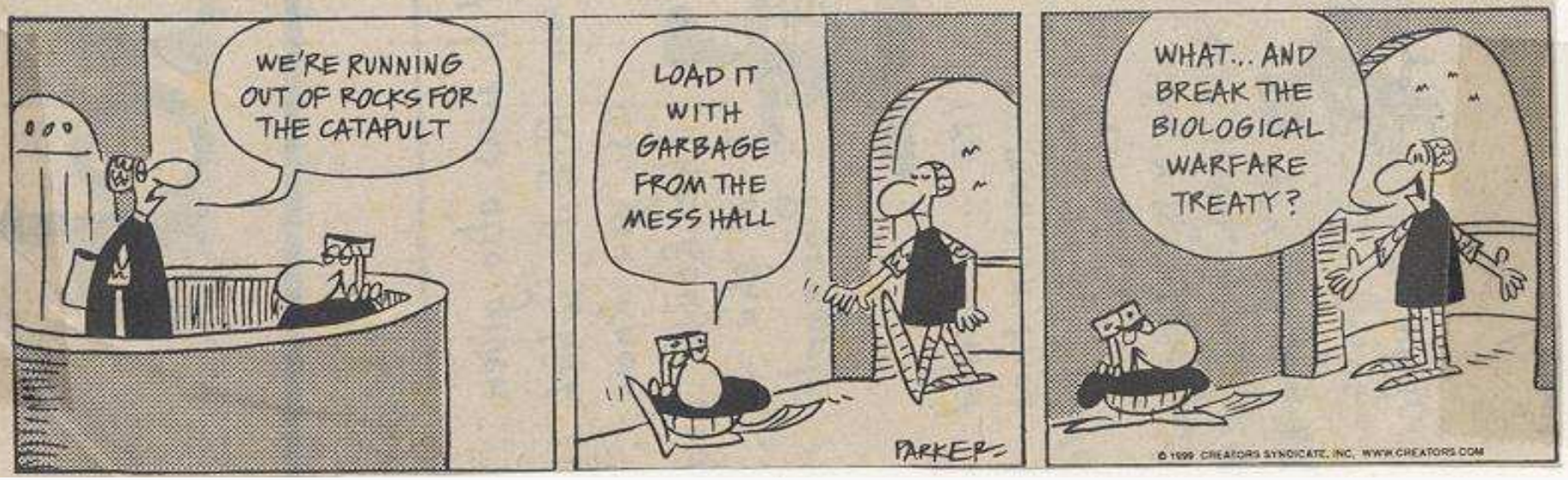
Burnet Institute
Medical Research. Practical Action.

Sir Frank Macfarlane Burnet OM AK KBE

Winner of the Nobel Prize for Medicine

Australian of the Year (1960)

WIZARD OF ID BY PARKER AND HART



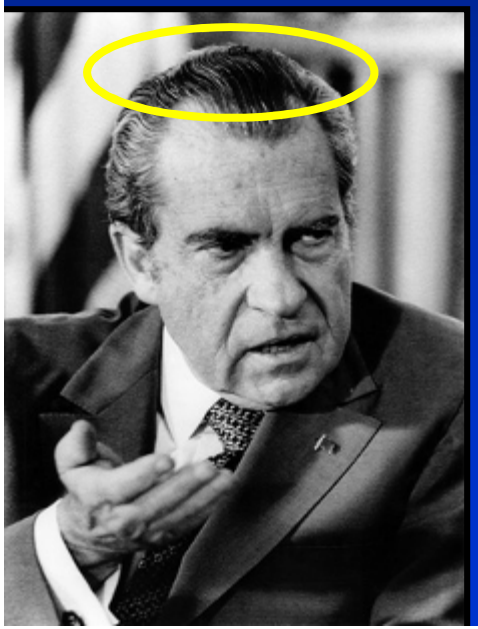
The norm against biological warfare

- **Geneva Protocol (1925)**
- **US renunciation of BW (1969)**
- **Biological Weapons Convention (1972)**

  "bacteriological (biological) agents and toxins being used as weapons … would be repugnant to the conscience of mankind"

- **Maintaining the norm today**

  technology, law and ethics



Richard Nixon

Biological Weapons Convention (1972)

Article I

Each State Party to this Convention undertakes never in any circumstances to develop, produce, stockpile or otherwise acquire or retain:

(1) Microbial or other biological agents, or toxins whatever their origin or method of production, of types and in quantities that have no justification for prophylactic, protective or other peaceful purposes;

(2) Weapons, equipment or means of delivery designed to use such agents or toxins for hostile purposes or in armed conflict.

Australian Law

Crimes (Biological Weapons) Act 1976 (Cth), Section 8:

(1) It is unlawful to develop, produce, stockpile or otherwise acquire or retain:

(a) microbial or other biological agents, or toxins whatever their origin or method of production, of types and in quantities that have no justification for prophylactic, protective or other peaceful purposes; or
(b) weapons, equipment or means of delivery designed to use such agents or toxins for hostile purposes or in armed conflict.

(2) A corporation that, or a natural person who, does an act or thing declared by subsection (1) to be unlawful is guilty of an offence and is punishable, on conviction:

(a) in the case of a corporation—by a fine not exceeding $200,000; and
(b) in the case of a natural person—by a fine not exceeding $10,000, or by imprisonment for a specified period or for life, or both.

Biological Weapons Convention (1972)

Other key provisions:

Article III	Not to transfer, or in any way assist, encourage or induce anyone else to acquire or retain biological weapons.
Article IV	To take any national measures necessary to implement the provisions of the BWC domestically.
Article VI	To request the UN Security Council to investigate alleged breaches of the BWC and to comply with its subsequent decisions.
Article X	To do all of the above in a way that encourages the peaceful uses of biological science and technology

National Health Security Act 2007

"security-sensitive biological agents"

Tier 1	Tier 2
Abrin	**African swine fever**
Bacillus anthracis	**Capripox virus**
Botulinum toxin	**Classical swine fever virus**
Ebolavirus	***Clostridium botulinum***
Foot and mouth disease virus	***Francisella tularensis***
Highly pathogenic Influenza A virus, infecting humans (including Avian Influenza H5N1)	**Lumpy skin disease virus**
Marburgvirus	**Peste des petits ruminants virus**
Ricin	***Salmonella* Typhi**
Rinderpest	***Vibrio cholerae* (O1 and O139)**
SARS coronavirus	**Yellow fever virus**
Variola virus	For more information go to www.health.gov.au/SSBA
Yersinia pestis	

HHS SELECT AGENTS AND TOXINS

Abrin
Botulinum neurotoxins
Botulinum neurotoxin producing species of *Clostridium*
Cercopithecine herpesvirus 1 (Herpes B virus)
Clostridium perfringens epsilon toxin
Coccidioides posadasii/Coccidioides immitis
Conotoxins
Coxiella burnetii
Crimean-Congo haemorrhagic fever virus
Diacetoxyscirpenol
Eastern Equine Encephalitis virus
Ebola virus
Francisella tularensis
Lassa fever virus
Marburg virus
Monkeypox virus
Reconstructed replication competent forms of the 1918 pandemic influenza virus containing any portion of the coding regions of all eight gene segments (Reconstructed 1918 Influenza virus)
Ricin
Rickettsia prowazekii
Rickettsia rickettsii
Saxitoxin
Shiga-like ribosome inactivating proteins
Shigatoxin
South American Haemorrhagic Fever viruses
- Flexal
- Guanarito
- Junin
- Machupo
- Sabia

Staphylococcal enterotoxins
T-2 toxin
Tetrodotoxin
Tick-borne encephalitis complex (flavi) viruses
- Central European Tick-borne encephalitis
- Far Eastern Tick-borne encephalitis
- Kyasanur Forest disease
- Omsk Hemorrhagic Fever
- Russian Spring and Summer encephalitis

Variola major virus (Smallpox virus)
Variola minor virus (Alastrim)
Yersinia pestis

OVERLAP SELECT AGENTS AND TOXINS

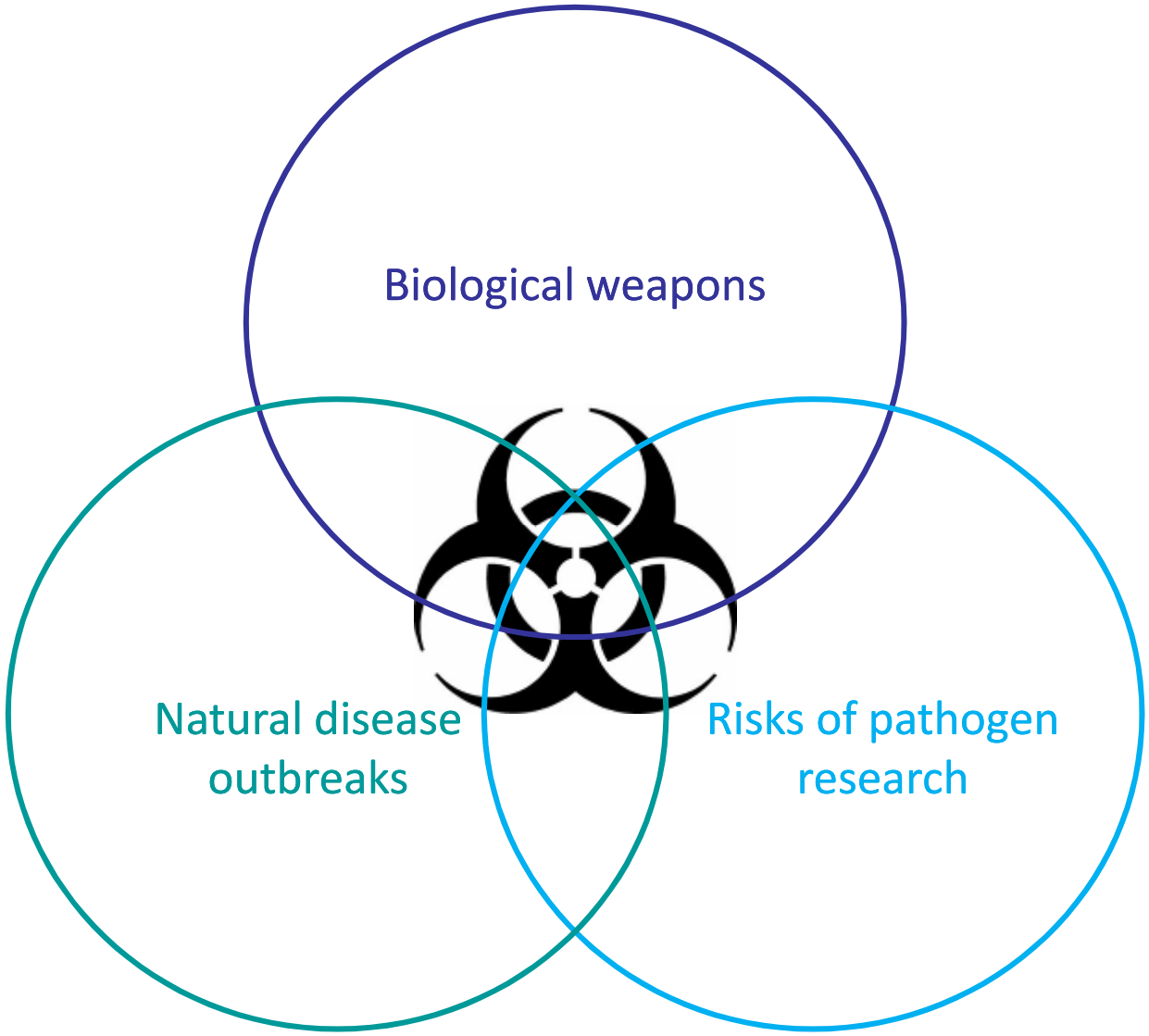
Bacillus anthracis
Brucella abortus
Brucella melitensis
Brucella suis
Burkholderia mallei (formerly *Pseudomonas mallei*)
Burkholderia pseudomallei (formerly *Pseudomonas pseudomallei*)
Hendra virus
Nipah virus
Rift Valley fever virus
Venezuelan Equine Encephalitis virus

USDA SELECT AGENTS AND TOXINS

African horse sickness virus
African swine fever virus
Akabane virus
Avian influenza virus (highly pathogenic)
Bluetongue virus (exotic)
Bovine spongiform encephalopathy agent
Camel pox virus
Classical swine fever virus
Ehrlichia ruminantium (Heartwater)
Foot-and-mouth disease virus
Goat pox virus
Japanese encephalitis virus
Lumpy skin disease virus
Malignant catarrhal fever virus (Alcelaphine herpesvirus type 1)
Menangle virus
Mycoplasma capricolum subspecies *capripneumoniae* (contagious caprine pleuropneumonia)
Mycoplasma mycoides subspecies *mycoides* small colony (*MmmSC*) (contagious bovine pleuropneumonia)
Peste des petits ruminants virus
Rinderpest virus
Sheep pox virus
Swine vesicular disease virus
Vesicular stomatitis virus (exotic): Indiana subtypes VSV-IN2, VSV-IN3
Virulent Newcastle disease virus[1]

USDA PLANT PROTECTION AND QUARANTINE (PPQ) SELECT AGENTS AND TOXINS

Peronosclerospora philippinensis (*Peronosclerospora sacchari*)
Phoma glycinicola (formerly *Pyrenochaeta glycines*)


Biological weapons
Natural disease outbreaks
Risks of pathogen research

7th Review Conference of the Biological Weapons Convention

United Nations Office in Geneva, 5 to 22 December 2011

Treaty-relevant developments in science and technology

Transparency and confidence-building measures

Decision-making at annual BWC meetings

Outreach and education

Universality

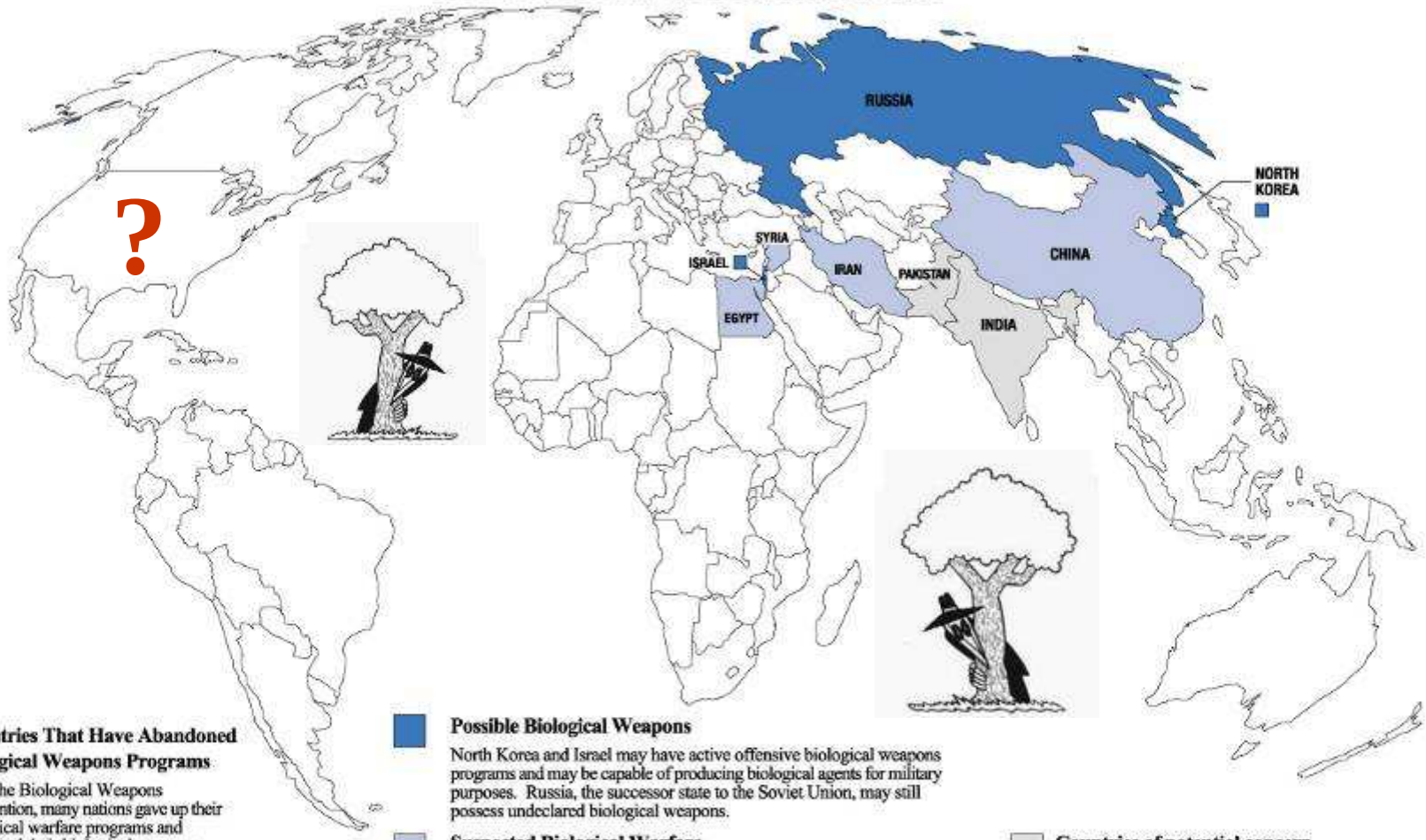
Universality

Of the 195 states in the United Nations, the Biological Weapons Convention currently has 164 States Parties and 13 signatories.

There are 18 states which have neither signed nor ratified the Convention:

Andorra
Angola
Cameroon
Chad
Comoros
Djibouti
Eritrea
Guinea
Israel
Kiribati
Marshall Islands
Mauritania
Micronesia (Federated States of)
Namibia
Nauru
Niue
Samoa
Tuvalu

BIOLOGICAL WEAPON STATUS 2005



Countries That Have Abandoned Biological Weapons Programs

With the Biological Weapons Convention, many nations gave up their biological warfare programs and destroyed their biological weapons stockpiles, including the United States, the United Kingdom, France, Canada, Germany, Japan, states of the former Soviet Union, and South Africa.

Possible Biological Weapons

North Korea and Israel may have active offensive biological weapons programs and may be capable of producing biological agents for military purposes. Russia, the successor state to the Soviet Union, may still possess undeclared biological weapons.

Suspected Biological Warfare Research Programs

China, Iran, Egypt, and Syria may have offensive biological warfare research programs. There is no conclusive evidence that Iran or Syria has produced actual agents or weapons.

Countries of potential concern

Some are concerned that India and Pakistan possess the industrial infrastructure to support offensive biological weapons programs, but there's no evidence that such programs exist.

BTA Net Assessment–Technical Threat Assessment Task Areas

Acquire, Grow, Modify, Store, Stabilize, Package, Disperse

- Assess criminal, terrorist, and state technical capabilities, methods, and devices for delivering BTA against U.S. targets
- Assess the nature of nontraditional, novel, and nonendemic induction of disease from potential BTA
- Provide high-fidelity models and simulations of disease transmission of BTA for threat assessment, countermeasure development, and emergency management
- Assess and evaluate emerging technologies as they relate to BTA analysis and threat assessment
- Apply Red Team operational scenarios and capabilities
- Evaluate and predict U.S. vulnerabilities to foreign and domestic threats

Homeland Security

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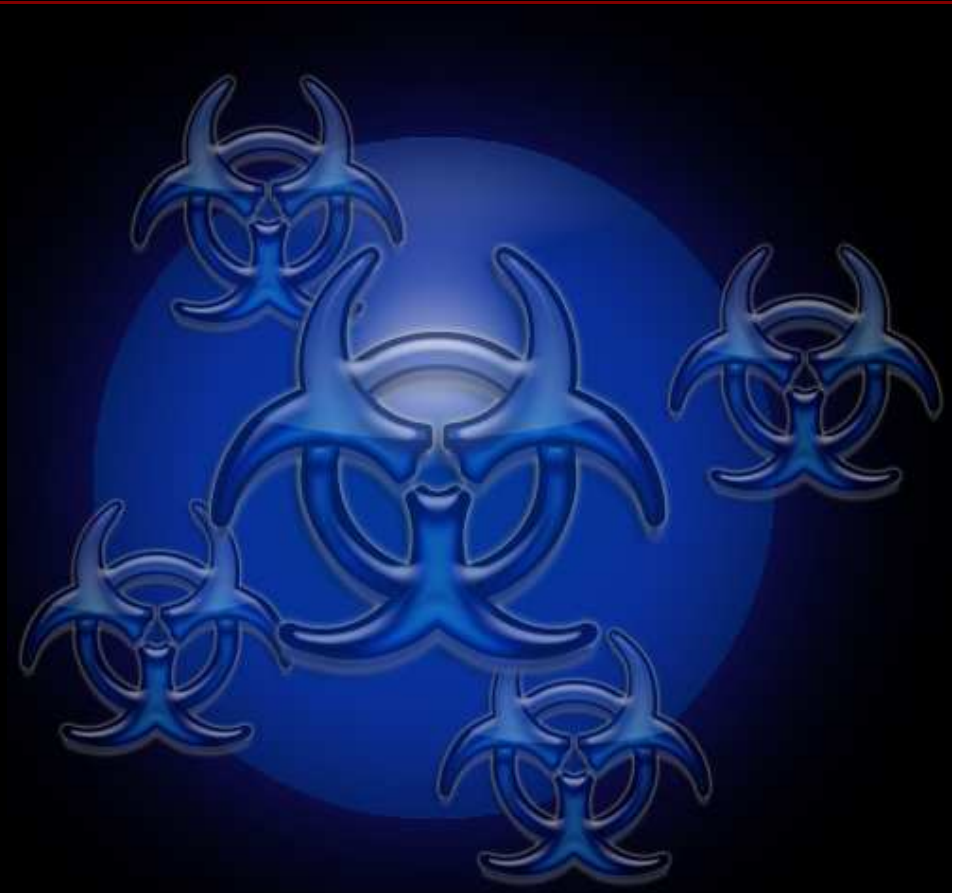
Source: Bioweapons and Biodefense Freedom of Information Fund website, www.cbwtransparency.org/archive/

Original source: US Armed Forces Pest Management Board website, www.afpmb.org, 2004 (since removed)

The Biological Weapons Convention

Overview and prospects



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