

Treaty Structure that has contained CBR since WW1 - 1918

may be unswerving. My involvement ~ 15 years. Account to Board  
substantial time

Cl<sub>2</sub> COCl<sub>2</sub> Lewisite Mustard used in 1917-18  
major part of the (non lethal) casualties of 1918.

A few frags - none systematic - in BW by Imperial German  
Govt. Would have exploited their undoubted supremacy  
in biomedical research of that epoch.

World reaction in Disarmament (with German post  
Versailles mode - prohibition mutual deterrence  
(French reservation) - Geneva protocol 1925

Mutual deterrence succeeded through stresses of WW2  
despite a) German development of nerve gas  
b) US/British investment in bacteriology  
as well as chemical weapons - Fort Detrick  
since 1943.

post WW2 - Research captured German nerve gas  
stocks + technology. Very little solid info,  
except in dubitably my bag.

~ 1970 new movement to strengthen arms control in  
C+BW ... →

(1972) BW Disarmament. Inel. toxins  
US ratify Geneva protocol - Formal engagement

U.S. disarmed - destroyed substantial stockpiles  
published a great deal of what was  
done at Ft. Detrick.

disassembled its military BW .....  
greatly downgraded CW.....

Since then, discussions on CW disarmament.

Problematic w/c verification problems. New US initiatives:

- 1) Declaration and destruction of stockpiles + facilities - 10 yrs.
- 2) on-site monitoring of declared sites
- 3) Short notice, unannounced inspections all military or gov. owned facilities
  - ? commercial - Sov. already complained
  - ? non CW mil. sites - e.g. "stealth" factory.
  - ? what is an "inspection"

△ A step would be monitored destruction of some fixed quantities.

Meanwhile, in absence of treaty, deterrent posture has been looked to, starting about 3 years ago

stockpile leaky - big deterrent problem.

largely unusable w/c transport + delivery risk except in grave general war.

{ defense equipment + technology was in very poor shape.

Restoration - in 3 or 4 years most of our <sup>NATO</sup> forces will have reasonable gas masks + protective clothing. Reduce temptations of a "first strike"

Binary modernization of CW deterrent.

DoD will now accept a 1:1 substitution.

yellow rain. CU practiced in Laos, Cambodia, Afghan.

Af.

Admiss. position that Soviet Union has supplied the material. Indubitable for Afghanistan. Probably a variety of chemicals tried, really don't know what they are. No reliable samples have come out.

SE Asia

2 problems.

- 1) Soviet role
- 2) Nature of the weapons

1) - evidence based on intelligence sources that are not prudently revealed. "Believers" but such closely compartmented information intrinsically does not get internal cross check. Very limited technical talent in govt. on these matters I can't form a careful judgment

2) yellow rain = mycotoxins. Certainly some samples are bc deposits. Mycotoxins doesn't make too much sense. Many refugee reports of lethal attacks: I don't doubt. <sup>TOXIN</sup> Jewish - called under Bd treaty. No greater threat to us than nerve gas. <

IRAG → IRAN

mustard, nerve gas, not mycotoxins.

Really want to talk about BW.

definition: vs EW

Treaty: Disarmament vs. Mutual Deterrent EW.

Potential for spread!

BW agents could be favored by modern biology to be more controllable. I'm not going to tell you how to do that.

Over a 10-15 year period the rumored Soviet R+D in applying genetic engineering could be a formidable threat.

Hard to monitor, define R+D. in setting of distrust. They probably think as ill of us (projecting their assumptions) as we must of them.

Hazards to U.S.

- 1) Terrorism. Small states. spread
- 2) Accidental or catalytic war.
- 3) clandestine war. Cross.
- 4) arms race + distrust
- 5) backlash on authenticity of biomedical research problems humanis
- 6) thin detentions of microbiologists like Cold War. Contra intern'l cooperation in treaty

We don't want to live in a BW world!

We have shared interests in USSR

They will not run a "biological race"; though they may be less restricted in testing than we are.

Their race may be with China; they differ us with nuclear weapons.

(Discouragingly) Few technical <sup>①</sup> No magic answers. Find some platforms of communication with their scientists capable of seeing large issues. Some public steps through CRSAC --- probably private channels. Try to get more openness.

② Enhance our intelligence so we can better assess what is going on.

③ Develop our defensive capability -- air defense! Detectors, vent, lab systems, base security. prophylaxis

④ Not talk too much about how easy air attack would be discretion

Will be very hard to respond to terrorist attacks. Embassy don't need BW to retaliate. Do need a framework of mutual reinforcement of existing treaty. Letting closer contact with allies! - not easy.