CB Weapons Threat Concepts and Issues

(as developed in the "CB 2010" Study)

June 1998

CB 2010 Study Objectives

- Develop a realistic assessment based on military professional judgment of the likely scope of CB use in the future and the impact of that use in a wide range of circumstances in the 2010 timeframe
- Articulate resulting problems and issues

Bottom Line Finding

- This study exposed serious vulnerabilities that could be exploited by the asymmetrical employment of chemical and biological weapons in both CONUS and in the operational theater on our Power Projection System and therefore degrade our nation's ability to respond to crisis

Bottom Line Recommendations

- There must be a significant increase in the level of attention by OSD and the Services to the potential of asymmetrical use of CB weapons.
- The U.S. must develop a capability to deter, counter and prevail in the face of such use of CB weapons

Study Structure and Participants

- Study Management
  - Chair — GEN John W. Foss, USA Ret.
  - Co-Chair — MG John K. Stoner, USA Ret.
  - Senior Advisor — GEN Frederick J. Kroesen, USA Ret.
  - Secretariat Chair — Ms. Amoretta M. Hoeber
- Red Team
  - LTG Harry E. Soyster, USA Ret.
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  - MG John K. Stoner, USA Ret.
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- Special Operations Team
  - GEN Wayne A. Downing, USA Ret.
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Study Structure and Participants
(cont.)

- Army Team
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  - LTG Dan Schroeder, USA Ret.
  - LTG James H. Johnson, USA Ret.
- Navy/Marine Corps Team
  - MG Ray M. Franklin, USMC Ret.
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- Air Force Team
  - LtGen Anthony Burshnick, USAF Ret.
  - LtGen Lawrence E. Boese, USAF Ret.
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Study Support

- Office of the Assistant to the Secretary of Defense/Nuclear, Chemical and Biological Counter-proliferation/Chemical and Biological Defense (NCB CP/CBD)
- Office of the Secretary of Defense/Net Assessment
- U.S. Army Chemical and Biological Defense Command (CBDCOM)
- Executive Office, Joint Service Materiel Group

Methodology

- Joint Vision 2010 and Service Visions 2010
  - Requirements to "Project Decisive Force"
  - Use of technology to gain "Full Spectrum Dominance"
  - Little CB consideration
- Briefing updates for Team
  - 2010 intelligence projections
  - Service CB operational concepts and priorities
  - Current and projected U.S. R&D programs
  - Other CB studies underway

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Methodology (cont.)

- Development of credible postulated CB use
- Interactive gaming of scenario with and without CB use
- Comparative analysis
- Accumulation of insights from gaming results
- Development of findings and recommendations

Scenario Context — 2010

- World remains politically fragmented
- Regional coalitions and alliances situational and conditional
- Massive CB stockpiles and hence massive battlefield use is less likely, partially as a result of the CWC
  - Verification procedures
  - Trade restrictions on nonsignatories
- Threat of circumscribed use of smaller CB stockpiles, especially by rogue nations, remains
- Increased threat of CB attack by terrorist and paramilitary operations
- Allies and host nations are less prepared for CB defense than U.S. forces

Scenario

- Southwest Asia (Persian Gulf) selected as geographical area
  - Major challenge for U.S. military deployment
  - Scenarios in area well-accepted, with historical baseline
  - Rogue nations possess and are likely to continue to develop CB capabilities
- Potentially hostile nations have assuredly learned the following "lessons" from Desert Storm:
  - Do not allow U.S. (and Allies) to build up massive force
  - Do not allow U.S. to build a coalition
  - Do not try to fight U.S. military strength for strength
  - Neutralize U.S. strengths by asymmetrical means
- These "lessons" can be implemented with small stockpiles of CB weapons

Postulated Threat Concept

- Most effective use of CB is in asymmetrical attacks on U.S. Power Projection System
  - Fear of massive retaliation governs choices
  - Decide to use nonlethal CB to gain advantage but avoid large number of fatalities/casualties and thereby minimize probability of U.S. retaliation

*The scenario postulated in this study has not been "validated" by any official intelligence agency

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The Threat in Our Scenario

- Iraq used nonlethal, persistent CB weapons as follows*:
  - BW (cholera) against prepositioned equipment afloat at Diego Garcia (D-3) to delay deployment
  - Persistent CW (mustard) against prepositioned equipment in Kuwait
  - Persistent CW (mustard) to contaminate ports and airbases in Persian Gulf
- Iran used its well-developed terrorist network in U.S. to conduct non-attributable, nonlethal, persistent CW (mustard) attacks on selected deployment airfields and ports in CONUS

*Agents selected for our scenario are examples. There are a variety of available non-lethal and persistent agents that would have equivalent military impact.

U.S. Concept

- Concepts from Joint Vision 2010 and Service Visions; forces and capabilities in accordance with QDR
- Assumed forward deployments in the Persian Gulf similar to those currently in place
- U.S. able to implement Flexible Deterrent Options (FDOs) upon detection of Iraqi buildup
- U.S. operational CB concept continues to be focused on forces operating in a CB environment, relying on early warning, avoidance, and protection — clean up later

Scenario Gaming

- Base Case – no use of chemical/biological weapons
- CB Case – CB weapons employed per Red Concept
- Comparative analysis of base case and CB case
- Development of findings

Base Case

- Iraq attacks with 48 hour unambiguous warning; Iran begins operations in Bahrain
- U.S. executes its operational plan
- Results
  - Enemy conventional missile and air attacks fail to close APOD/SPODs and disrupt operations
  - U.S. reinforcing air, land, and sea elements arrive on schedule
  - Deployed Iraqi forces vulnerable to air attack
  - Iraqi forces stopped prior to capture of Kuwait City
  - Coalition forces (U.S./Kuwait) in position for decisive counter-attack

CB Case

- Iraq neutralizes MPF (prepositioned afloat for all services, including supplies and equipment for two brigades, one Army and one Marine) at Diego Garcia at D-3
- Nonlethal and unobserved bio attack by single aircraft
  - Crews affected, some equipment contaminated
- Iraq begins operations providing 48-hour unambiguous warning; Iran begins operations in Bahrain
- CINCENT begins FDO with a Brigade (to man Kuwaiti set) and AEF (deploying from Langley, Shaw and Seymour Johnson) on D-2

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CB Case (cont.)

- President announces U.S. response (at H-44 hours)
- Chemical attacks (mustard) implemented at H-39 hours at ten U.S. APOEs* via unconventional means (crop dusters, fuel trucks, etc.)
- These attacks disrupt FDO deployment of brigade (3ID) and AEF. Army transfers deployments to other airfields. AF alerts and begins deployment of later assets. A minimum of 24 hours delay in airlift, 48 or more hours in cleanup

* Hunter AAF, Robt. Gray AAF, Pope/(Ft. Bragg) AFB, Ft. Campbell AAF, Dover AFB, Langley AFB, Seymour Johnson AFB, McGuire AFB, Barksdale AFB and Charleston AFB

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CB Case (cont.)

- H-15 hours — U.S. ports* hit by small scale chemical attacks. Disrupts port deployment operations by 48 hours or more
- H-hour, D-day
  - Iraq initiates ground and air attacks on Kuwait
  - Simultaneously launches air, TBM and cruise missile chemical attacks (mustard) on U.S. prepositioned sets in Kuwait, the two major Persian Gulf ports** in Saudi and four major airfields*** with prepositioned equipment and used as arrival airfields

* Bayonne, Newport News, Wilmington, Charleston, Savannah, Jacksonville, Beaumont and Galveston, Norfolk

** Al Jubayl, Ad Dammam

*** Dhahran, Riyadh, Al Kharj, King Kalid

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CB Case (cont.)

- Army brigade in Kuwait only partially deployed upon attack
  - Withdraws most equipment to Saudi Arabia
  - Joined by MFU to provide defense of Saudi
- U.S. air combat operations greatly disrupted by cleanup and impact of MOPP and by relocation of operations to alternative airfields
- Civil Air declines to operate from "dirty" airfields
- Force arrivals shifted to Western Saudi airfields.
- Buildup requires in-country decontamination and extensive motor transportation

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CB Case (cont.)

- U.S. force generation activities and operational capabilities severely curtailed during early stages of operations; Air priority to air defense in Saudi; interdiction attacks primarily limited to use of Naval air and cruise missiles, and USAF B-1 and B-2 attacks on Iraqi targets
- D+2 — Terrorist chemical attack (mustard) on Pentagon Metro Station after night closing
  - Escalator contaminated; station closed
  - Results in heightened security and cleanup, disrupting Washington, D.C. activities

CB Case Results

- Iraq successfully occupies Kuwait by D+5. Announces termination of conflict and embraces Kuwait into Iraq. Apologizes for attacks in Saudi Arabia. Announces oil sales will continue at present prices
- U.S. faced with building force for a counterattack, building a coalition and retaining political will to continue operations

Conclusion

- Asymmetrical employment of chemical and biological weapons in CONUS and the operational theater can exploit vulnerabilities in our Power Projection System which could have serious impact on our nation's response to a crisis

Threat Finding

- Finding #1: Massive use of chemical weapons on the battlefield appears less likely in 2010 because:
  - The Chemical Weapons Convention will make manufacturing, weaponizing and delivering large quantities of chemical weapons more difficult
  - The relative importance of massive forces facing each other in static confrontations will be less
  - U.S. forces will be perceived as able to fight protected, given the capabilities of our battlefield-oriented protective equipment
  - The use of chemical and biological weapons by terrorists or small "special operations" teams is not reduced and may even be increased by these same factors

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Threat (cont.)

- Recommendations: OSD and Service planners and policy makers should explicitly address in all future posture assessments achieving a capability to deal with increased threats of CB use, including:
- CB use against U.S. forces at CONUS bases prior to or during operational deployment
  - CB use against intermediate staging bases
  - CB use against bases in theater
  - CB terrorism against U.S.(CONUS) targets
- Avoid any CWC-induced complacency and address the growing terrorist and asymmetrical use threats of CB

Focus Finding

- Finding #2: Current Service doctrine and operational concepts are focused on massive use of chemicals on the battlefield. This focus has driven the operational concepts and requirements and hence RDA.
- "Operate through" was an appropriate concept of the Cold War, but is less appropriate concept today
  - Lower intensity conflicts, such as we have today and will have in the next decade, are dependent upon force projection and support from friendly nations
  - Protection of the force projection facilities and capabilities is necessary

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Focus (cont.)

- Recommendation: Services should expand doctrine and operational concepts to include other than massive battlefield uses of CB:
  - Joint Force and Service doctrine and operational concepts should be broadened specifically to deal with use of CB by terrorists and small teams
  - Expanded concepts should be used in RDA prioritization

Intelligence Finding

- Finding #3: Intelligence deficiencies exist in
  - Determining intentions and capabilities to use CB weapons
  - Locating small chemical and biological manufacturing and storage sites
  - Identifying pre-launch locations of CB weapons
  - Detecting presence of covert, clandestine and paramilitary capabilities in the theater of operations and in CONUS

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Intelligence (cont.)

- Recommendations: Intelligence agencies should expand HUMINT and collection systems specifically targeted at CB capabilities
  - Production and storage
  - Weapons locations
  - Intentions
  - Clandestine capabilities
- The number of analysts addressing CB threats and the level of CB awareness of analysts focusing on other threats must be increased

Deterrence Finding

- Finding #4: Established concepts of deterrence and retaliation do not consider CB use by terrorists or small action teams against the Power Projection System followed by denial of action
- Recommendation: Deterrence and retaliation policies should be broadened to reflect the current world threat environment (the DSWA deterrence model offers a useful method to address some of these issues)

CONUS Sanctuary Status Finding

- Finding #5: CONUS, especially APOEs/SPOEs, can no longer be considered immune to attack, especially CB attack, during the operational deployments of forces
- There have been several terrorist attacks in the U.S. in recent years
  - Employment of CB weapons against CONUS facilities has major impact and is hence attractive to an opponent
  - Asymmetrical attacks of all types (including CB) in CONUS could be executed in support of overseas operations

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CONUS Sanctuary Status (cont.)

- Recommendation: Additional force structure, training and equipment are required. Force protection concepts, R&D, and resource allocations should be balanced to address CONUS as well as OCONUS facilities and requirements

Training Finding

- Finding #10: U.S. forces are not trained to counter asymmetrical CB threats
- Recommendations: Joint Service Staff and the Services should promulgate requirements for training exercises that include sufficient use of CB weapons against force projection to:
- Identify problems and shortfalls
  - Develop solutions and actions required
- Exercises of the effect of CB contamination on CONUS deploying forces should include other government agencies as necessary for training and policy development

Civilian, Contractor and Host Nation Support Personnel Finding

- Finding #11: Increased reliance on civilian employees and contractor and host nation personnel, all of whom are currently unprotected against CB, is an increasing vulnerability
- Recommendations: U.S. forces, civilian employees, and contractor personnel should be equipped and trained to the level of protection against CB required for those forces they support
- Materiel to achieve this objective should be included in future requirements

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Civilian, Contractor and Host Nation Support Personnel (cont.)

- U.S. equipment and capabilities should be marketed internationally to realize economies of scale and strengthen regional coalition

Public Reaction Finding

- Finding #12: We could not estimate the likely public reaction to chemical attacks on APOEs/SPOEs relative to the availability of the civilian/contractor workforce to support deploying forces
- Special Recommendation: OSD should focus attention on the problems of potential CB attack on CONUS military facilities. We believe that rapid decontamination to high levels of assurance will be vital to bringing the workforce back quickly after attack

Repeating the Bottom Line

- Our Armed Forces have serious vulnerabilities, specifically in power projection, which could be exploited by use of even nonlethal chemical and biological weapons in both CONUS and in the operational theater
- General Recommendation: There must be a significant increase in the level of attention by OSD and the Services to
  - Redress these vulnerabilities and
  - Develop and procure the necessary U.S. capability to deter, counter and prevail in the face of this CB threat.

Final Conclusion

- Given the right level of attention, funding and leadership by OSD, Joint Commanders and the Services, it is believed that this problem can be reduced to manageable size