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**BIOLOGICAL WARFARE COUNTERMEASURES**

**A POLICY-ORIENTED GAMING  
SIMULATION (BioWar 2000) (U)**

**POST-GAME "QUICK LOOK" REPORT**

**KAI TR 16-95**

**17 November 1995**

**Kapos  
Associates Inc.**

Suite 1900  
1101 Wilson Boulevard  
Arlington, VA 22209-9998

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Classified by: OASD/ISP/CP, Dr. Mitchel Wallerstein

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Submitted to:  
SAIC  
1309 Continental Drive, Suite F  
Abingdon, MD 21009  
Attention: Mr. Walt Brandt

Submitted by:  
Kapos Associates Inc.  
Suite 1900  
1101 Wilson Boulevard  
Arlington, VA 22209

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I. INTRODUCTION (U)

(U) BioWar 2000, a seminar gaming activity, took place at the National Defense University's War Gaming and Simulation Center, Washington, D.C., on 8 and 9 November 1995. BioWar 2000 is the gaming component of a three-phase analysis, gaming and workshop program designed to assess policy options for biological defenses for U.S. and coalition forces, and to facilitate the development of concepts for a Commanders' Reserve of biological agent vaccines and possibly other biological warfare countermeasures to be used for regional contingencies involving Other Than U.S. Forces (OTUSF). The program is funded by the United States Army's Medical Research and Materiel Command, and co-hosted by the Office of Counterproliferation Policy of the Office of the Assistant Secretary of Defense for International Security Policy and by the National Defense University's Center for Counterproliferation Research.

A. *Game Design* (U)

(U) The BioWar 2000 seminar gaming activity was composed of three regionally-based modified seminar games conducted simultaneously by three separate "syndicates" of players, with opening and closing plenary sessions. The selected regions — Korea, Iraq/Kuwait and Bosnia — represent areas of interest to the U.S. where the potential use of biological agents by hostile states or political factions is conceivable. Each syndicate of players was composed of representatives, about twenty in number, from three levels of government that would, in concert, be engaged in resolving regional crises and developing or executing national policy concerning biological warfare countermeasures. These levels of government were defined as the national policy level, the strategy and operational policy level, and the warfighting level.

B. *Global Scenario Description* (U)

(U) Independent regional scenarios were prepared, one for each syndicate. The regional scenarios were set in a single global scenario that portrayed world affairs in the year 2000. Highlights of the global scenario are as follows:

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(U) In Europe: The goals of the European Union have been bolstered by a strong economy. NATO is reorganizing its command structure to facilitate military operations outside of its members' territories. Russia is reconsolidating its "near abroad" through a strengthened economy and deployed "peacekeeping forces." Peace agreements hold in Bosnia under the watchful eyes of UN peacekeeping forces positioned along borders defined in the peace agreement negotiated in 1996. However, the 1996 boundaries are the subject of mounting criticism in Serbia and Russia.

(U) In the Middle East: Secular governments are being overtaken by fundamentalist Islamic movements. A Pan-Islamic fundamentalist bloc is also emerging. In Iraq, the Baath regime fell to Islamic fundamentalists in 1997. It was quickly apparent, however, that the national interests of the new regime included putting Kuwait in Baghdad's sphere of influence.

(U) In Asia: Japan, dependent as ever on its traditional sea lines of communication, remains focused on East Asia and on its China market. China has embarked on aggressive tax and tariff programs, at the expense of Hong Kong and the other enriched southern and coastal provinces, to fill the coffers of the central government. Tensions are high in Korea, where reunification talks — on and off at the working level for years — have been terminated by North Korea.

(U) In South Asia: India has gained strength as centralized government control of the economy gives way to government oversight of more competitive markets. Foreign investors in India, principally Asian multinationals, have enabled the completion of major improvements in the transportation and power infrastructures. In Pakistan, tribal difficulties in the northwest border with Afghanistan and perennial clashes with India over minorities along the borders hobble economic progress and threaten internal political alliances.

(U) In Africa: South Africa has emerged as a viable economic state with influence extending northward into central Africa. In much of central Africa, however, tribalism continues to fuel anarchy and continued poverty, and threatens to further alienate world investors and aid donors.

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(U) In Central and South America: Interlinked trade groups are remaking national economies. By 2000, over half of the 34 governments will have joined the Free Trade Area of the Americas (FTAA), which is linked to the North American Free Trade Agreement (NAFTA) and regional customs unions. Cocaine and heroin are still cash crops in Ecuador and Bolivia. Chronic debt still plagues Haiti, the Dominican Republic and the Central American countries. UN peacekeeping forces remain in Honduras and Costa Rica in a thus far successful attempt to cool Nicaragua's border disputes with its neighbors.

### C. *Game Design Commonalities (U)*

(U) There were two game design criteria: (1) provide a conceptual baseline for framing Department of Defense and U.S. Government biological warfare passive defense (BWPD) policy options and for understanding the associated policy-development and decision-making process in the context of regional conflicts involving the use, or threatened use, of biological warfare; and, in the process, (2) benefit the entire interagency policy-making community in its planning for coordinated responses to biological warfare threats.

(U) To that end, a common set of BWPD issues were identified for separate consideration in region-specific settings in each of the syndicates. The issue identification process included an analysis of DoD Directive 6205.3, DoD Immunization for Biological Warfare Defense, and consultation with the sponsors of the BioWar 2000 program. A presentation of the BioWar 2000 issues was included in the BioWar 2000 Player Handbook, which was provided to each of the players about a week before the game. A copy of this presentation is attached as Appendix A.

(U) Most game format features were standardized and game documentation was tailored to facilitate player concentration on the BWPD issues in the context of separate scenarios.

- A seminar format was employed with separate, parallel play by three syndicates of players. Players were responsible for role playing and discussant functions, but other

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game elements — play of higher authority, the environment, the threat, and actions following from game decisions — were provided by the Syndicate Facilitator.

- The game was played over a period of one and one-half calendar days.
- Events within each scenario were cumulative and escalative across the period of play and involved time skips and scene shifts.
- Enabling questions were prepared for each Syndicate Facilitator before the game. These questions were designed to focus player discussion on the BWPD issues within the context of the specific syndicate scenario. The enabling questions were, therefore, issue-based. For that reason, the substance of the enabling questions was very similar across the syndicates, differing mainly in scenario-specific elements.
- Scenario events (cues) were introduced during the action play as stimuli for player discussion, decision and action. Scenario events were prepared for each syndicate for this purpose. Scenario events were also issue-based and, therefore, shared a high degree of commonality across the syndicates. However, the employment of events differed among the Syndicates. The Syndicate Facilitator's judgment concerning the tempo of player discussion and the need for player stimulation determined the employment and selection of events.
- Game documentation was designed to focus player attention on BWPD and OTUSF matters. The military campaign plan and the warfighting options were prepared by the control team. Players were advised to assess the suitability and feasibility of the war plans only as they affected the acceptability of Biological Warfare (BW) responses and BWPD initiatives.
- Players were advised in the opening plenary session that, upon completion of syndicate game play, each syndicate's Senior Player would present a briefing on game play and

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findings at the closing plenary session. The control team provided a recommended set of syndicate briefing topics to all the syndicates.

*D. Game Design Variables (U)*

(U) BioWar 2000 gaming activity was cast in three parallel regional scenarios as a means to assess the sensitivity of BWPD issues to a set of region-related variables. These variables and their regional settings are as follows:

- **Intelligence and Warning Time**
  - Korea: Long — four to six months.
  - Iraq/Kuwait: Medium — two to three months.
  - Bosnia: Short — a matter of weeks.
- **Cultural and Environmental Factors**
  - Korea: Asian, rural/mountainous.
  - Iraq/Kuwait: Arab, desert.
  - Bosnia: European, multi-ethnic, rural/pastoral.
- **Political Context and History**
  - Korea: Unresolved remnant of the Cold War. Long-standing issue of reunification with stable forces in opposition.
  - Iraq/Kuwait: Western access to Middle East oil reserves as a coalition imperative. Iraq, as a rogue state, seeking hegemony in the Persian Gulf.
  - Bosnia: Western influence on the evolution of Eastern Europe in the post-Cold War era. Long-simmering ethnic animosities unconstrained in post-Cold War setting.
- **History of Prior Use of Biological Warfare (BW) or Chemical Warfare (CW)**
  - Korea: Known inventories of weaponized agents. No prior use.
  - Iraq/Kuwait: Known inventories. Prior use by aggressor state reported.



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- **Bosnia: No known inventories. No prior use.**
- **Aggressor's Objectives**
  - **Korea: Reunification of Korea under communist regime.**
  - **Iraq/Kuwait: Annexation of Kuwait. Control of oil reserves.**
  - **Bosnia: Multiple aggressors, confused objectives.**
- **Friendly Mission**
  - **Korea: U.S. support of long-standing ally.**
  - **Iraq/Kuwait: Coalition deter aggressive activities of Iraq. Assure continued access to Middle East oil.**
  - **Bosnia: NATO cessation of hostilities. Restoration of 1996 peace agreement.**
- **Other, Non-Military Actors — Non-Governmental Organizations (NGO) and Third Country Nationals (TCN)**
  - **Korea: Few NGOs, very large TCN business population. Large dependent population.**
  - **Iraq/Kuwait: Few NGOs, large TCN contractor population. Few dependents.**
  - **Bosnia: Extensive NGO population, relatively few TCNs. No dependents.**

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II. SYNDICATE PLAY (U)

A. *Common Syndicate Issues (U)*

(U) Following this section on common syndicate issues, the report will focus on each syndicate's unique set of issues. The following are the common topics discussed by all syndicates during the course of game play.

1. **Common Assumptions (U)**

(U) The following assumptions were common among the syndicates and were used to frame discussions on the major issues of the game:

(U) a. U.S. forces will continue to deploy, in times of crisis, to areas where known biological threats are present. Use of BW might slow but not terminate the employment of forces in a region.

(U) b. All intelligence information is not accurate and may change at any time.

(U) c. Logistics nodes are primary targets for chemical/biological (CW/BW) weapons.

(U) d. BW terrorism cannot be ruled out.

(U) e. There are enough vaccines to immunize U.S. forces.

(U) f. The warfighter will be allowed to assist in the prioritization of the allocation of the Commanders' Reserve of vaccines in his area of responsibility.

(U) g. Most allied nations will rely heavily on the U.S. for BW defense support.

2. Common Concerns (U)

(U) All syndicates agreed on the need for an integrated BW defense plan to establish a baseline for the development of all future BW passive measures. An integrated BW defense plan would include policy, planning, coordination, and programmatic elements.

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(U) b. Intelligence concerns, in the areas of both exploitation and sharing, were important to warfighters and to the scientific and technical support community. Intelligence about the nature of BW in regions of interest is of obvious benefit to the warfighter; it can also provide the programmatic community information necessary to ensure that planning, research, development and acquisition take place as needed to counter the BW threat. The sharing of this information with allies could encourage them to become more self-sufficient in selected areas of BW detection and protection. In turn, this may have an effect on an enemy's willingness to use BW weapons if the enemy perceives the level of BWPD preparation of the forces in opposition to be high.

(U) c. Logistical concerns were addressed in syndicate play. Concerns ranged from the disruption of key air ports of debarkation/sea ports of debarkation as a result of the use of BW weapons, to the interruption and/or saturation of lines of communication in the target country after the use of BW weapons.

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(U) f. Syndicates were concerned that allied forces around the world would not be able to participate at an equal level of burden-sharing regarding BW defenses. These nations may not be able to afford the cost, or possess the ability/willingness to produce and employ BW defense measures with their forces. Other nations need to appreciate that the U.S. cannot provide the world's needs for BW vaccines, equipment or medical support. At home, the severity of the BW threat and the dimensions of BWPD must be conveyed to Congress and to the American people.

(U) g. There was a concern regarding a hoped-for link between deterrence and high BW defense readiness.

(U) h. Finally, players were concerned with the need for a U.S. declaratory policy concerning BW. This concern emerged from syndicate discussions that recognized a paradigm shift in the art of war that would occur upon the initial use of biological weapons against U.S. and coalition forces.

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*B. Bosnia (U)*

1. Synopsis (U)

(U) The scenario for the Bosnia syndicate was set in the summer of 2000, and involved the activation and deployment of NATO rapid reaction forces to Bosnia in a crisis situation where the threat and potential use of BW agents were determined to be highly probable. The background for this situation was based on the unraveling of a 1996 Balkan peace agreement being monitored by a UN peacekeeping force in Bosnia. In this scenario, a Bosnian Serb entity known as the Serb Republic, which had been established in the eastern half of Bosnia in 1996, launched a military action against the Republic of Bosnia and the UN peacekeeping force. The purpose of this attack was to seize control of the city of Gorazde which had been ceded to Bosnia in the peace agreement and linked to Sarajevo by a UN protected corridor. Several hundred UN peacekeepers (including a U.S. contingent) were trapped in Gorazde along with the general population. During the action, it was discovered that the Serb Republic might have a BW capability, and it was also learned that the Bosnian government had been seeking weapons of "greater leverage."

(U) In response to this crisis, the UN Secretary-General requested NATO assistance and the Alliance responded by authorizing the activation of NATO forces to reinforce the UN peacekeeping mission in Bosnia, and to deter further Serbian aggression and restore the territorial integrity of Bosnia. NATO formed a Combined Joint Task Force (CJTF) for the operation, consisting of land, air and maritime components of NATO's rapid reaction force.

(U) For the purposes of this game, the Senior Player represented the Commander of the CJTF-Bosnia and the other players represented the CJTF staff, component commanders, technical advisors, and selected elements of the policy sector. Given the immediate situation and the BW threat, the players were assembled in their game roles to consider the major BW issues associated with the CJTF's assigned mission in Bosnia.

(U) Game play began with an evaluation of the mission and a discussion of major concerns and assumptions. The syndicate identified several political and practical concerns affecting the CJTF's assigned mission. Policy concerns focused on the projected deterrent posture, on the degree of danger to U.S. forces, and on public perceptions. Practical concerns included the level of coalition solidarity and host nation support, soldier empathy, folklore or misinformation regarding BW in the region, and BW defense capabilities in theater.

(U) The game participants then focused their attention on the specified and implied tasks that the CJTF would have to accomplish, and on what impacts and effects BW would have on pre-deployment activities, force entry logistics, non-combatant evacuation operations (NEO), and deterrent force operations. The syndicate considered several problems and questions, such as:

- (U) • How would the BW threat impact force deployment?
- (U) • (b)(1)
- (U) • What would be state of BW readiness for U.S. forces and OTUSF in the year 2000?
- (U) • What should be our BW strategy with respect to public affairs, diplomacy, legal considerations, and psychological operations?
- (U) • Would the timing of the arrival of NATO forces be influenced by the BW threat?
- (U) • What kinds of BW protective measures would the U.S. provide to allied forces and host nation personnel, and on what side?
- (U) • (b)(1)
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- (U) • Would it be possible to establish BW threat conditions?
- (U) • What impact would BW have on non-combatant evacuation operations?

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## 2. Scenario-Specific Considerations (U)

(U) Bosnia is a unique setting, fraught with ambiguity. The CJTF is not a combatant in this conflict but, rather, a third party entering into a conflict-ridden region with no clear-cut policy framework governing even such basic considerations as a clear identity of "friendly" and "enemy" forces, much less the thresholds of BW conflict. In other words, there is no clear "good guy/bad guy" paradigm to frame the policy.

(U) There is a great deal of BW-relevant folklore in this region associated with the ethnic nature of this conflict, certain biological and medical conditions unique to this area (e.g., frequently occurring tick-borne encephalitis), and various cultural differences (e.g., poor education, poor communication infrastructure) that impact the CJTF's mission. A determined effort must be made to deal with this folklore through education, information sharing, civil defense awareness, and other means of assistance.

(U) Expecting a tepid degree of public support for this operation (about what is currently reflected by the American public), the Commander of the CJTF would be inclined to believe that a worst-case risk assessment is of paramount importance even though the BW threat in the scenario is minimal. In fact, the outcome of this calculation can be factored into a policy risk-benefit assessment at the outset to determine if the intervention is worth its potential cost, particularly to civilian non-combatants whose deaths may well be laid at the feet of the U.S. The Heisenberg Principle reigns in this scenario in that BW would change the paradigm of the conflict to such a

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degree that the costs and risks associated with placing U.S. forces in Bosnia to "reopen a corridor" that is not of vital national interest to the U.S. might render the operation unacceptable.

(U) The best deterrent to the use of BW weapons is a clearly prepared and protected force. This calls for passive protection, vaccines, and extensive formal troop education programs, all of which are in short supply. An assumption that "we'll be better off in the year 2000" may not be warranted if current Program Objective Memorandum (POM) levels are not re-addressed.

(U) Preparations for exposure to BW agents mandate extensive medical support, which may not exist in sufficient quantity in theater. Significant medical support thus becomes a significant pacing item aggravated by short-warning response.

### 3. Critical Issues (U)

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(U) Support to civilian populations is critical in Bosnia. Civilians and military forces will be highly mixed throughout Bosnia in this type of operation. However, there are relatively simple protective measures that are available and effective in protecting the general population against BW agents. One example of civil defense preparedness for CBW can be found in Israel, where the government has instituted the concept of "safe rooms" in their homes and other buildings. The government of Israel has provided instructions to its citizens on how to make these safe rooms and how to respond in the event of a CW/BW attack. The process is simple and inexpensive, and it was proven to be effective in Iraqi SCUD attacks during Desert Storm.

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(U) U.S. short-warning responses may be negatively affected by post-vaccination response times required for inoculations to take effect. In other words, the timeline involved in the decision-making process and vaccination process prior to deployment of U.S. forces into a BW threat environment can be several months in length, which is not acceptable for short-warning crises. Therefore, short-warning scenarios may require a proactive U.S. immunization policy whereby military personnel receive initial inoculations during basic training and their immune status is maintained by boosters so they are protected when deployed in a crisis response.

(U) There is a defined need for forward-deployed medical intelligence diagnostic teams and BW detection systems to generate time-sensitive threat responses.

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(U) If struck by BW weapons, response options quickly become national strategic considerations (and multi-national, as well), and are taken out of the hands of the Commander of the CJTF. Advance planning is essential in this area to ensure that the on-ground response is fully understood by the adversary.

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(U) Several major scientific and programmatic issues were identified and discussed during the course of this game. These issues have significant implications related to military requirements.

- There are insufficient stockpiles of vaccines and physical protection assets available in current inventories.
- Better educational programs are needed to enhance awareness and readiness of U.S. military forces to respond to BW situations.
- The vaccine developmental timeline (10 years) is too long. This is due primarily to the regulatory requirements of the FDA and inability to prove efficacy in humans (no human testing). Emerging bio-technology must be leveraged to reduce this timeline.
- It is highly unlikely that an omnivalent vaccine could be developed to counter all BW agents, given the complexities of human biology and the constant emergence of new biological organisms and toxins.
- It is technically and fiscally impossible to develop and manufacture a licensed vaccine for every known BW agent. Therefore, DoD must invest wisely by focusing on the primary threats and prioritizing them for vaccine research and development.

C *Southwest Asia (U)*

1. *Synopsis (U)*

(U) The scenario for the Southwest Asia (SWA) syndicate was set in the summer of 2000. Political leaders of the Shiite majority in south Iraq entered into an uneasy alliance with the Kurds to bring down the Baath party in 1997. Early that same year, U.N. sanctions and embargo efforts were lifted. The new regime in Baghdad began diplomatic and trade campaigns designed to gain an economic foothold in Kuwait. Agenda items included joint oil exploration, pipeline construction,

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Iraqi control of Kuwaiti oil fields located at the Iraq/Kuwait border that tapped "Iraqi reserves," and seaport access.

(U) In May 2000, Baghdad began to move ground and missile forces to the south, and air forces from the north of Iraq to bases south of Baghdad, all within striking range of Kuwait. The consensus among western analysts was that Baghdad was intent, once again, on annexing at least a portion of Kuwait as an Iraqi province. In July, the President of the U.S., in response a UN Resolution, authorized the deployment of contingency U.S. forces to SWA. The warfighter's mission was to conduct coalition deterrence operations to defend Kuwait and deter Iraqi aggression.

(U) In Move One, on 8 November, the SWA syndicate dealt with "Deterrent Force Deployments," "Non-Combatant Evacuation Operation," and "Force Entry Logistics and Counters to Enemy BW Capabilities." In Move Two, on 9 November, the syndicate's discussion centered upon the impact of Iraq's BW strikes against coalition forces and facilities.

2. Scenario-Specific Considerations (U)

(U) The SWA scenario was unique for at least three reasons concerning coalition warfare involving both U.S. forces and OTUSF in the face of a BW threat. First, the game players acknowledged that the U.S. has an overriding national security interest in unimpeded and reliable access to Middle East oil. Second, given Iraq's past use of chemical and biological weapons, syndicate players agreed that the Iraqi BW threat was clear and ominous, more so, quite likely, than that posed by North Korea or the warring factions in Bosnia. Third, the mission to defend Kuwait and thwart Iraqi aggression poses significant logistical challenges due to long lines of communication and the proximity to Iraq of sea and air ports of debarkation. Players reasoned that Iraq, having made the strategic mistake of allowing the allies to build up forces unhindered for almost six months in 1991, would probably not allow coalition forces the same luxury in BioWar 2000.

(U) Players identified unique cultural sensitivities in SWA that would affect basic medical planning and readiness. Cultural sensitivities would influence how body parts and cadavers are to be

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disposed of. Furthermore, the propensity of Arab men to have beards would make it difficult for them to achieve an air-tight seal on protective masks.

(U) The SWA syndicate developed a number of scenario-related working assumptions. First, an aggressive BWPD program for OTUSF would have deterrent value. Second, coalition allies would strongly object to the absence, incompleteness, or "deficiency" of an OTUSF policy; perhaps to the point that it might unravel coalition relations and hence diminish military cooperation in coalition warfare. Third, Iraq in the year 2000, even without Saddam Hussein in power, could still be as unpredictable as before. Fourth, the U.S. will retain world leadership in BW defense matters. Fifth, OTUSF are essential to complete the mission at hand, especially at air and sea ports of debarkation.

### 3. Critical Issues (U)

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(U) The specter of domestic terrorism in the U.S. was raised several times. Game players brought up the issue in terms of a rogue state coercing the U.S. with BW "blackmail," not unlike what Iraq tried to do with the threat of chemical weapons against coalition forces during the 1991 Persian Gulf war. The potential for specific BW attacks against domestic air and sea ports of embarkation, not just foreign ports of debarkation in host nations, was of primary concern.

(U) Ramifications of the "Gulf War Syndrome" regarding both troop and public opinion were of great concern to syndicate players.

(U) Intelligence, particularly human intelligence (HUMINT), was recognized by the game players to be key in BW detection and monitoring. The players recognized that Iraq had managed to deceive the U.N. Special Commission (UNSCOM) for four years concerning the full extent of its

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suspected BW capability. The Iraqi case study shows that the accuracy of HUMINT — including surprise on-site inspections in this case — cannot be ensured when it comes to BW intelligence collection (or, for that matter, other intelligence concerns).

(U) The game players agreed that a "Red Team" comprising a group of BW and BWPD experts (technical, scientific, and military) would provide useful services to the warfighter and the unified commander-in-chief.

*D. Korea (U)*

*1. Synopsis (U)*

(U) The Korea scenario was set in the year 2000 and was distinguished by confirmed and validated threats of chemical and biological weapons programs, and of weaponized (ballistic missiles, aircraft spray tanks, artillery and covert delivery) biological warfare agents, none of which had been used in the theater by North Korea. U.S. combat troops were withdrawn in 1998, leaving only small headquarters, logistics and POMCUS maintenance units. In the scenario, the South Koreans would not acknowledge, and thus did not prepare for, North Korean use of biological weapons. After peace and reunification talks were suspended due to a North Korean walkout, tensions rose. Border probes and penetrations increased even as uncertainty as to the political situation in Pyongyang increased. A power struggle there made our already cloudy reading of North Korean intentions even worse.

(U) South Korea asked the United Nations to reinforce its defenses with combat capable forces. The United Nations responded positively, and also imposed economic sanctions. The U.S. undertook a large reinforcement, returning large numbers of combat troops. For whatever reason, North Korea eventually launched an attack, accompanied by BW attacks, into South Korea.

(U) The Senior Player took on the role of Commander, Combined Joint Task Force - Korea. He was advised in that role by a CJTF staff, component commanders, technical, scientific and medical advisors. In his role as Senior Player, he was assisted and advised by Washington interagency

representatives and by strategic and operational policy-level persons representing various entities of the DoD.

**2. Scenario-Specific Considerations (U)**

(U) Korea fits a profile where the possibility of armed conflict is high and where weaponized BW agents were assumed to exist in the hands of a hard-line, intemperate, isolated and often "rogue" regime. With the withdrawal of U.S. combat forces, South Korea became even more vulnerable, but with the prospects of peace engendered by rapid progress in the peace talks, the Government of South Korea accepted the risk. When the U.S. forces were present, deterrence clearly kept the situation calm. Now, North Korea sensed an opportunity and the power struggle in Pyongyang ensued.

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**3. Critical Issues (U)**

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(U) The Korea syndicate quickly realized the advisability of revising the Time Phased Force Deployment List (TPFDL). The revision should move medical and logistical units to an earlier arrival time. This earlier arrival of medical units, biological detector-equipped units, diagnostic laboratories and medical logistics units will put in place the biological defense that will be essential if there is an attack on arriving combat and logistical support units. Another issue considered central to the

success of deployments was the readiness of the U.S. National Guard and Reserves for BW. It was agreed that the active forces could not enter hostilities without the Guard and Reserves, and thus the latter must be as ready as the active forces; they should be well immunized and equipped with defenses against biological attack. This entire discussion was revisited and refined during consideration of the Deterrent Force Deployment phase of BioWar 2000.

(U) The crucial role that logistical support OTUSF would play in the Korea scenario was readily recognized. What was not considered crucial early in the scenario play, but came to assume greater importance as the scenario progressed, was the complicating role of non-government American citizens, dependents and third-country citizens the U.S. forces might evacuate in a non-combatant evacuation operation. The numbers could easily reach 100,000. If any of these persons were suspected of having been exposed to BW agents, then a non-Korea quarantine would have to be considered at the national policy level. Whether all are evacuated to CONUS, or non-U.S. citizens are held on unincorporated U.S. possessions in the Pacific, or are repatriated directly to their home country is a difficult issue. The legal authority for restricting the movement of citizens, conducting a quarantine and the subsequent medical treatment of evacuees are representative of the several difficult areas in question. For example, what legal right does the U.S. have to detain persons showing no symptoms of disease or illness and to hold them in isolation? This issue raised the myriad logistical and medical plans that would need to be immediately put into action if such an evacuation were conducted and evacuees/patients flown into, as was suggested, the isolated Dugway Proving Grounds. A footnote to this issue is the need for diagnostic laboratories to differentiate medically between diseases and symptoms caused by BW agent attack, and naturally occurring diseases. In the case of Korea, anthrax occurs naturally.

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(U) The Korea syndicate discussed several BioWar 2000 issues that would not occur on the Korea peninsula. First, the support Japan might give, or withdraw, if North Korea threatened Japan with missile and BW agent attack might be mitigated if more and better missile defenses were available. Second, the possibility of using third party non-coalition or non-allied military and civilian forces (i.e., medical, missile defense, detection and warning) to protect Japan or to deal with evacuated persons and casualties is an area the syndicate concluded was worthy of policy exploration. Finally, the distinct possibility of BW terrorism in CONUS against civilian and military locations, especially those supporting deployments, was considered, as were such attacks in Europe and Asia against U.S. facilities.

(U) Underpinning every phase of the Korea syndicate's deliberations was the issue of sharing intelligence with likely coalition and host nation partners. A result of sharing threat intelligence with the host nation might be better passive and active defenses against an attack, detection of imminent use of BW agents and weapons, detection of actual use, and warning of a downwind hazard to

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troops, civilian and OTUS logistical support components. It was thoroughly agreed that long-term strategic intelligence and short-term warning intelligence were essential to a coalition's success, and likely to be a proximate cause if it failed.

(b)(1)



(U) It was quickly decided that decontamination was essential and more work on this in the biological defense research and development community was needed. More difficult was the discussion of how to induce crew members to remain with their aircraft or vessels, how to assure them they could be protected from BW attack and that they could be medically treated even if they were exposed, and that continuous monitoring was available. A medical representative suggested that U.S. medical personnel could be embarked with commercial shipping to maintain continuous observation and treatment as the ships moved from West Coast (U.S.) ports to Korea and Japan. Some in the group felt that increasing the wages of seamen would be sufficient, whereas others opted for the wage and medical countermeasures approach.

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**III. RECOMMENDED BioWar 2000 DISCUSSION TOPICS (U)**

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(U) C. Given that vaccines and other BW passive defense measures can be stockpiled as a Commanders' Reserve, the control, allocation, allotment and use of this reserve require that a decision-making and control structure be in place to help formulate, and then adjust, the implementation of national policy for OTUSF passive defenses. What should be the key elements of this structure, who are the major players, and what sort of interagency arrangements are necessary to ensure that the policy is executable?

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(U) G. What can or should the U.S. expect of allies, coalition partners, host nation governments, or the United Nations and other non-government organizations? Given the magnitude of the problem and the limits on U.S. capability to protect OTUSF, is it reasonable to assume that other entities will play a role in the protection of OTUSF.

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**APPENDIX A  
BioWar 2000  
8-9 November 1995**

**PARTICIPANTS**

**KAIPOS ASSOCIATES INC.**

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Bosnia Syndicate Players

PLAYER'S NAME	TITLE	ORGANIZATION	GAME ROLE	
National Policy Level (b)(6)	MG	TRADOC	Senior Player - CCJTF-Bosnia	
	Capt (Army)	USA/PA	White House Public Affairs	
	LCol	OASD-ISP/CP/CA&R	USDP	
	Ms.	ACDA	State Department	
	CDR	USPHS	USPHS	
	Mr.	OSD/AE	USD A&T	
	LCol	AFMIC	Intelligence Community	
	Ms.	DIAC	Host Nation	
	Strategy & Operational Level (b)(6)	Mr.	ASD (SO/LIC)	ASD (SO/LIC)
		MAJ	JCS J-5 NucDiv	JCS J-5
LTC		DAMO/FDB	CINCAF/SOUH C-5	
COL		USAMRIID	USAMRMC	
Mr.		ACDA/GC	Legal	
Ms.		ACDA	CINC POLAD/RPA	
Warfighting Level (b)(6)		Maj	AF/XOXI	Air Component Commander
		MAJ	DAMO/FDB	Land Component Commander
		LCOL	HQMC/PP&O	Maritime Component Commander
		LTC	USAMRIID	Science & Technology Advisor
	Capt (Army)	USAMRIID	Science & Technology Advisor	
	Maj	DCS/LOG	CJTF C-4	
	LCDR	JCS J-5 NucDiv	CJTF C-3/5	
	Dr.	OPNAV (N514)	CJTF POLAD/RPA	
	LT	OPNAV (N931D)	Medical Advisor	

Korea Syndicate Players

PLAYERS NAME	TITLE	ORGANIZATION	GAME ROLE	
National Policy Level (b)(6)	MG (Ret)	KAI	Senior Player - CJTF-Korea	
	CDR	NSCPA	White House Public Affairs	
	LtCol	OASD-ISP/CP/CA&R	USDP	
	Mr.	STATE/PM	State Department	
	Mr.	USPHS	USPHS	
	Mr.	OSD/AE	USD A&T	
	LtCol	NDU NPC	Intelligence Community	
	Dr.	SAIC	Host Nation	
	Strategy & Operational Level (b)(6)	CDR	JCS J-3 SOD	ASD (SO/LIC)
		LTC	JCS J-5 NucDiv	JCS J-5
LtCol		JCS J-5 NucDiv	JCS J-5	
LtCol		CINCPAC J-5	CINCPAC J-5	
MAJ		USAMRMC	USAMRMC	
Mr.		USAMRMC	Legal	
Mr.		STATE/PM	CINC POLAD/FPA	
Warfighting Level (b)(6)		Maj	AF/OXI	Air Component Commander
		MAJ	JCS J-8	Ground Component Commander
		Capt (USMC)	HQMC/PP&O	Maritime Component Commander
	Mr.	DNA	Science & Technology Advisor	
	LTC	OSD (HA)	Science & Technology Advisor	
	LtCol	USAF/LGX	JTF J-4	
	LtCol	JCS J-5 NucDiv	JTF J-3/5	
	Ms.	CNA	JTF POLAD/FPA	
	LTC	DAMO/SG	Medical Advisor	



SWA Syndicate Players

PLAYER'S NAME	TITLE	ORGANIZATION	GAME ROLE
National Policy Level (b)(6)	RADM (Ret)	KAI	Senior Player - CJTF-Kuwait
	Ms.	NSC	NSC
		OSD/PA	White House Public Affairs
	Mr.	OASD-ISP/CP/CA&R	USDP
	Dr.	STATE/PM	State Department
	Mr.	USPHS	USPHS
	Dr.	OSD/AE	USD A&T
	Ms.	CIA	Intelligence Community
	LtCol	NDU/CP	Host Nation
Strategy & Operational Level (S) (6)	COL	ASD (SO/LIC)	ASD (SO/LIC)
	CDR	JCS J-5 NucDiv	JCS J-5
	CDR	CINCCENT J-5	CINCCENT J-5
	MAJ	USAMRMC	USAMRMC
	Mr.	STATE LPM	Legal
	Mr.	NDU	Legal
	Ms.	OATSD(AE)	CINC POLAD/FPA
Warfighting Level (S) (6)	Maj	AF/XOXW	Air Component Commander
	Capt (Army)	DAMO/FDB	Ground Component Commander
	LCDR	OPNAV (NSI)	Naval Component Commander
	Dr.	Wright Labs	Science & Technology Advisor
	COL	JPO-BD	Science & Technology Advisor
	LTC	CENTCOM	JTF J-3/5
	Ms.	CENTCOM J-5	JTF POLAD/FPA
	LTC	CENTCOM/SG	Medical Advisor

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*APPENDIX B (U)*

**BioWar 2000 ISSUES (U)**

(U) Players in all three syndicates explored a common set of BWPD issues in separate region-based settings. The set of issues has been compiled to focus the design objectives for the overall BioWar 2000 Program, namely (1) to provide a conceptual baseline for framing DoD/USG policy options and for understanding the associated policy development and decision-making process in the context of regional conflicts involving the use, or threatened use, of BW — and in the process, (2) to benefit the entire interagency policy-making community in its planning for coordinated responses to BW threats.

(U) An analysis of DoD Directive 6205.3, DoD Immunization for Biological Warfare Defense, suggests a useful way to organize biological warfare countermeasures issues. The directive establishes *policy*, assigns *responsibilities*, addresses *requirements*, and prescribes *procedures* all in broad terms sufficient to facilitate coordination of the overall program among identified DoD organizations. The directive does not, and needs not, address the many issues that attend its implementation or the BW defense program as a whole. The directive properly establishes parameters, such as “adequate” quantities of vaccines . . . for “programmed” forces . . immunized in “sufficient” time . . . against “validated” threats . . . . These parametric terms require guidelines and boundaries and, as such, represent issues within the Department.

(U) The issues are numerous, reflecting a complex program. It will not be possible to raise all of them much less to resolve them all. They include:

*Policy (U)*

(U) • What are the policy development and decision processes regarding the employment of BWPD?

- (U) • What are the ethnic, religious and cultural impediments to BWPD employment by U.S. forces? By coalition forces?
- (U) • Are there unique diplomatic considerations attending the employment or non-employment of BWPD for coalition forces? For supporting civilians? What should be the relative weight of effort among the various BWPD alternatives?

~~Ø~~ • (b)(1) [Redacted]

- (U) • What should be U.S. BWPD policy concerning Other Than U.S. Forces (OTUSF)?
- (U) • What should the OTUSF cohort include?
- (U) • What are the readiness implications of immunization timing (e.g., pre-deployment, during mobilization, during deployment) decisions?

~~Ø~~ • (b)(1) [Redacted]

- (U) • Do current national policies provide an adequate and acceptable foundation for consensus determination of BWPD?
- (U) • Should the U.S. sponsor the development of BWPD vaccine programs in other countries? If so, how extensive should U.S. participation be? The modalities could include:
  - Foreign Military Sales (FMS) cases to build and run facilities.
  - Direct transfer of technology.
  - Technological assistance.

**Responsibilities (U)**

~~Ø~~ • (b)(1) [Redacted]

- (U) • Who is equipped to respond to mass casualties?

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- (U) • Is there a quarantine policy and who administers it?

***Requirements (U)***

- (U) • What are the unique intelligence requirements concerning the BW threat? Are acceptable means and methods available to the commander to provide adequate indications and warnings?
- (U) • Should the U.S. stockpile chemical-biological protective clothing as part of the Commanders' Reserve?
- (U) • What capability does, or should, the U.S. have for decontamination of affected combatants and OTUSF?

***Procedures (U)***

- (U) • What are the medical and logistic issues attending the maintenance and employment of the Commanders' Reserve?
- (U) • What are the advantages and disadvantages of evacuation vs. prohibiting dependents in some theaters?
- (U) • How do we deal with BW agent contaminated patients and bodies?