Iraq's Weapons of Mass Destruction (WMD):

Unresolved Issues

by **Michael Eisenstadt (/experts/michael-eisenstadt)**

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ABOUT THE AUTHORS

Michael Eisenstadt (/experts/michael-eisenstadt)

Michael Eisenstadt is the Kahn Fellow and director of The Washington Institute's Military and Security Studies Program.

Brief Analysis

The agreement hammered out by UN Secretary General Kofi Annan and Iraqi President Saddam Hussein resolving (at least temporarily) the most recent crisis over access to suspected WMD-related sites in Iraq fails to address the fundamental problem the international community faces in Iraq: Baghdad's continued refusal to comply with UN resolutions requiring it to destroy its WMD programs. The crisis over access was in part manufactured by Iraq to divert attention-by all appearances successfully-from this more fundamental issue. This paper will survey Iraq's remaining WMD capabilities, based on published U.S., British, and United Nations documents, and information provided by UN weapons inspectors in public fora, in order to highlight what remains to be done in order for Iraq to fulfil its obligations in this area.

Chemical Weapons: Iraq is believed to still possess a small stockpile of lethal agents, munitions, precursor chemicals, and production equipment that provide it with the ability to inflict massive casualties on an unprotected civilian population, though it probably does not have sufficient quantities of chemical munitions for effective battlefield use. Items that remain unaccounted for include:

- stocks of blister and nerve agents, possibly including quantities of "VX salt"-a form of the highly lethal nerve agent that can be stored on a long-term basis;

- over 600 tons of VX precursors (enough to make 200 tons of the agent) and some 4,000 tons of other precursor chemicals (enough to produce several hundreds of tons of agent);

- between 30,000-40,000 munitions that could be filled with chemical or biological agents (including some 45-70 al-Hussein missile warheads, 2,000 bombs, 15,000 artillery shells, and 15,000-25,000 rockets).

The U.S. government believes that if inspections and monitoring were to cease, Iraq could resume production of mustard agent in weeks, sarin within months, and VX in 2-3 years.

Biological Weapons: Iraq probably retains agent seed stocks, growth media, production equipment, and munitions, and almost certainly has sufficient quantities of biological agent on hand to cause massive casualties among

civilians, though it may not yet have perfected the means for effectively disseminating biological warfare agents. Items that remain unaccounted for include:

- unknown quantities of seed stock and/or bulk stocks of anthrax, botulinum toxin, clostridium perfringens, aflatoxin, and ricin (Iraq has not produced credible evidence to verify its claim that it unilaterally destroyed all its biological agents and munitions);

- 17 tons of growth media, which is enough to grow more than three times the amount of anthrax that Iraq has admitted to thus far;

- equipment that could be used to produce biological agent in dried form, which is a much more effective way to disseminate the agent than the liquid form that Iraq has acknowledged producing;

- possibly more advanced warhead designs than those recovered to date (in the late 1980s Iraq tried to acquire supersonic parachutes that could have been used to build more advanced models);

- spray equipment that could be used to disseminate agent from manned or unmanned aircraft.

Iraq almost certainly retains a residual biological warfare capability, since some agents (such as anthrax) can be stored and remain viable for decades. Moreover, both UNSCOM and the U.S. government believe that if inspection and monitoring were to cease, Iraq could resume production of biological agents within a matter of days. Some UN inspectors, however, believe that Iraq may currently possess a clandestine biological warfare agent production capability, which means that they could be producing biological warfare agents at this very moment.

Ballistic Missiles: Iraq may retain a small force of operational missiles (locally produced versions of the al-Hussein) equipped with chemical or biological warheads and mounted on mobile launchers. In addition, Iraq has conducted computer design studies of missiles with proscribed ranges since the 1991 Gulf War, and it has continued efforts to procure components for such missiles-including gyroscopes from scrapped Russian long-range missiles that it obtained in 1995. Because Iraq is permitted to produce missiles with a range of 150 km or less, it retains the infrastructure, talent, and know- how needed to reconstitute its missile program rapidly. Thus, were inspections and monitoring to cease, Iraq could produce a missile of proscribed range perhaps within a year, by clustering or stacking missiles currently in its inventory, or by resuming production of the al-Hussein missile.

Nuclear Weapons: The International Atomic Energy Agency (IAEA) lacks a complete picture of Iraq's prewar nuclear program. Unknowns include the scope of foreign assistance to Iraq's gas centrifuge program; the degree of progress toward mastering the production of centrifuge components; the extent of progress toward creating a viable nuclear weapon (i.e., did Iraq succeed in manufacturing all the components-other than fissile material-needed for a bomb?); the organization of Iraq's nuclear procurement network; and the whereabouts of gram quantities of low-enriched uranium from its calutron program. In addition, thousands of documents that could yield important insights into Iraq's nuclear program remain untranslated. Since the Gulf War, Iraq is suspected of having conducted clandestine theoretical research relating to bottlenecks in its pre-1991 program, which would make it easier to resurrect its program if inspections and monitoring were to cease. The greatest concern here remains the possibility that were Iraq to acquire fissile material from abroad, it could probably produce an operational nuclear weapon, even with inspections and monitoring in place.

Conclusions: This inventory of unanswered questions makes it clear that much remains to be done before Iraq can be judged to be in compliance with its obligation to dismantle its WMD programs. Focusing on issues of access during the recent crisis only served Iraq's interest. In future crises, tangible progress toward disarming Iraq by

obtaining verifiable and truthful answers to these unanswered questions (followed by the destruction of proscribed equipment and facilities)-and not the red herring of "access" (which should never have been bargained over)-should be the condition Iraq has to meet to avert the use of force. Otherwise, Iraq's current residual WMD- capabilities will become the baseline for a renewed buildup-and not a milestone along the way to its disarmament.

Michael Eisenstadt is a senior fellow at The Washington Institute. ❖

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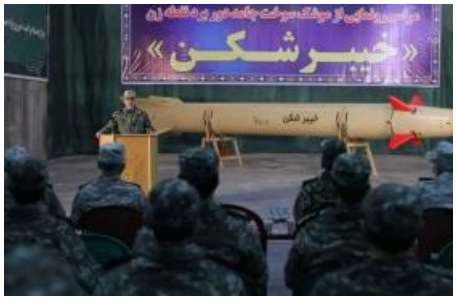

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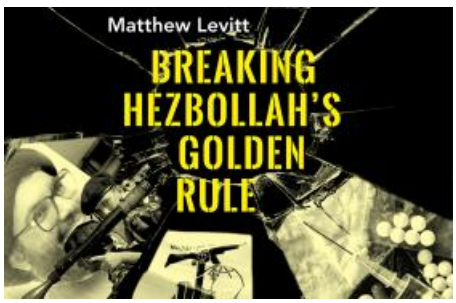

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