

Iraqi CBW Armament and the UN Special Commission

Saddam Hussein is evidently prepared to risk much in order to preserve the Iraqi nuclear-weapons program from total and irrevocable elimination under UN Security Council Resolution 687. The UN Special Commission (UNSCOM) charged with implementing the resolution has had to contend with all manner of subterfuge, deception, obstruction and threat in its work on nuclear weapons. What about Iraq's other weapons of mass destruction?

The answer seems to be that Iraq is now, since mid-May, cooperating fully with the UN Special Commission as regards CW weapons. Saddam Hussein appears content to abandon his poison gas. On BW, the picture is less clear. Here there are signs of cover-up and dissimulation -- but of a weapons program curtailed after it had barely started and which Iraqi authorities have been doing all they can to assure the world no longer exists and never again will.

That, at least, is what may plausibly be inferred from the information currently in the public domain. But there is much misinformation there too, and no doubt disinformation as well. UNSCOM is limiting disclosure of what its inspection teams have been finding and what their future plans are; quite rightly so at the present juncture. Not least for the future of CBW disarmament, a lot hinges on what Iraq turns out in fact to have been doing and on how the international community has been able to respond. In the meanwhile, however, false truths may take hold and do damage.

The News Chronology section of the *Bulletin* has reported, as far as possible, all that has been published on what the UNSCOM has learned about Iraqi CBW armament: see the entries for 18 April, 25 April, 16 May, 17 May, 9 June, 14 June, 30 July, 2 August, 7 August and 15-22 August. We are able here to add the following supplementary information. Although it has not previously been published with proper attribution, we are nonetheless convinced that it is reliable.

Iraqi Chemical Weapons

UNSCOM decided early on -- correctly, as it transpired -- that Iraq, in its communication to the United Nations of 18 April, had not declared all of its holdings of CW agents, nor all of its CW sites. Iraq was duly told of this and, on 16 May, submitted what it described as a 'comprehensive list.' Neither this list nor its associated clarifications have yet been published, but according to Iraq it was these disclosures and not detective work by UNSCOM inspectors which showed Iraq's CW capability to be larger than initially declared [see News Chronology, 30 July].

The first opportunity for checking what Iraq had declared came one month later with the dispatch of UNSCOM 2. This, the team assembled to conduct the first of UNSCOM's series of CW-related inspections, was tasked with the initial scouting mission to Muthanna State Establishment near Samarra, Iraq's principal CW facility, and was led by Peter Dunn of Australia [see News Chronology, 14 June]. It reported that none of the large amount of information it had gathered was in significant conflict with the declaration by Iraq for the site.

UNSCOM 2 confirmed earlier suppositions about the agent production routes used at Muthanna. Mustard gas had been produced from thiodiglycol and thionyl chloride. Tabun had been made by the original German route, namely from phosphoryl chloride via N,N-dimethylphosphoramidic dichloride. Sarin had been made by the route phosphorus trichloride to trimethyl phosphite to dimethyl methylphosphonate to methylphosphonyl dichloride, from which the immediate precursor methylphosphonyl difluoride (DF) was obtained using hydrogen fluoride; where the final product sought was sarin/GF mixture, the DF was reacted with a mixture of isopropanol and cyclohexanol. Both the sarin and the sarin/GF mixture had been produced as undistilled product, using triethylamine as stabilizer. Agent CS had also been produced at Muthanna, Iraqi authorities stating that it had been loaded into mortar bombs.

The second CW-related UNSCOM inspection, led by Jean-Paul Peroz of France and visiting several sites, took place two months later. It, too, reported good cooperation from Iraq. It had been preceded during 11-14

August by a small fact-finding mission sent to explore Iraq's capabilities for destroying its own CW weapons in the light of an analysis that had just been conducted by UNSCOM's Expert Panel on CW Destruction. Iraq told this fact-finding mission that it had never had a fatal accident during the whole of its CW-weapons program, including the limited demilitarization conducted at the end of the war with Iran; it had about 200 personnel, thoroughly trained and experienced in handling CW agents, available for UN chemdemil work. The mission recommended that Iraq's offer to help in this work should be given serious consideration.

The UNSCOM mission was also told that the 336 binary sarin bombs at Al Walid declared in the 18 April communication were filled with alcohol only, and that, of the *Al-Hussein* missile warheads declared to be in storage at Dujayl, 14 were binary warheads, again filled with alcohol only. This information contrasted with what UNSCOM had earlier understood, and publicly announced, about what Iraq meant by 'binary sarin' -- namely that it denoted a chemical munition containing a mixture of sarin and GF [see News Chronology, 14 June].

Iraqi Biological Weapons

The Iraqi communication to the UN of 18 April had declared that "Iraq does not possess any biological weapons or related devices." Western commentators at once expressed skepticism, as well they might in view of the lengths to which US and other Coalition forces had gone to protect themselves against anthrax and botulin. The 18 April communication also announced that Iraq had joined the Biological Weapons Convention, so UNSCOM asked Iraq to furnish the same information about its biological programs as the UN had been receiving from BWC states-parties under the 1986/7 confidence-building agreement. Iraq acceded. In regard to the facility which Western news media had been reporting as the central Iraqi BW research establishment, at Salman Pak, Iraq notified the Special Commission that the purposes of the facility were the inspection and analysis of foods and liquids for human consumption, and the identification of chemical and biological contamination by laboratory diagnoses.

In early August, the Salman site became the object of UNSCOM 7, the first BW-related inspection, led by David Kelly of the UK. The team was told upon arrival that, since mid 1986, there had in fact been BW-related work at the facility but that the work had ceased in Autumn 1990, all BW agents then being destroyed by autoclaving. The team subsequently reported to UNSCOM that an aerosol chamber had been built at Salman before 1986 (probably 1983) in a building constructed for the purpose, and that botulin toxin had been deployed in studies in this chamber; and it reported, too, that it had been shown the crushed remains of the chamber on a garbage dump outside Baghdad. Iraqi authorities said that a 150-litre fermenter, purchased by SEPP in 1985 and installed at Salman the following year, had also been removed from the site. And the team had found on-site a purpose-built, hardened, stand-alone microbiological cold store, admirably suited, it reported, for the bulk storage of microbes. The assessment of the team was that the capability had existed at Salman to produce BW weapons on a limited scale.

These and other such observations (noted in the News Chronology) led the team to put forward the following conclusion. After Iraq had taken the decision to terminate BW work at the Salman site, there had been a high-level decision to deny that the program had existed and to remove all evidence of it from the site. Subsequently, as events made this position untenable, there was a decision to admit the existence of the program at Salman. Finally there was a decision to eliminate all evidence that could reveal to the UNSCOM inspection team the progress and size of the program.

Iraqi authorities handed over to the team as it was leaving a collection of bacterial seed stocks -- a gesture clearly meant to be taken as a token of intent to renounce BW armament. From the collection, the team concluded that Iraq possessed the following biological warfare agents: *Bacillus anthracis*, *Brucella abortus*, *Brucella melitensis*, *Francisella tularensis*, *Clostridium botulinum* strains which individually and independently produce botulinum toxins type A, E and F, *Clostridium tetani* which produces tetanus toxin, and *Clostridium perfringens* which produces a range of toxins, including epsilon toxin.

--The Editors