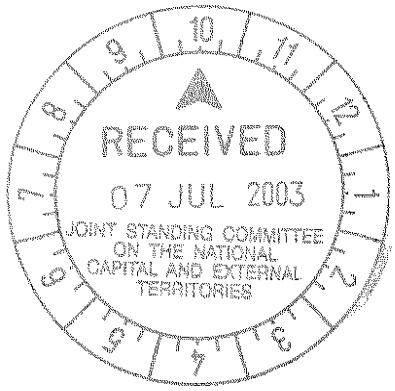

wmd-notes

WMD in Iraq - What Constitutes a Smoking Gun?

Dr Carlo Kopp, Defence Analyst and Consulting Engineer

The debate concerning the interpretation of intelligence concerning WMD capabilities in Baathist Iraq appears to pay little attention to metrics or measures of importance in specific WMD capabilities. Public discussion in the media often appears to focus on quantity rather than quality as a measure of the strategic value of WMD.

Iraq's WMD capabilities prior to Desert Shield/Storm in 1991 were best developed in the areas of lethal and disabling chemical agents and biological agents.

In the domain of chemical weapons Iraq was well established with the production of blistering/mustard agents and nerve agents, with widely available literature indicating the capacity to produce large quantities of G-series agents (GA, GB, GD, GF) and small quantities of much more lethal V-series agents (VX, VR). In biological agents Iraq was known to have weaponised anthrax, botulotoxin and aflatoxin.

For a chemical or biological agent to be successfully deployed as a weapon with military effect it requires a delivery system with the capacity to deliver a useful quantity of the agent to a useful distance, with viable accuracy.

During the Iran-Iraq war Iraq's primary delivery system was artillery, supplemented by artillery rockets and aerial bombs. Some Scud derivative ballistic missiles were modified with rudimentary warhead casings for chemical agent deliveries.

The current public debate on the subject of Iraqi WMD intelligence interpretation would appear to be based upon the assumption that large stocks

of munitions filled with chemical and biological agents would constitute the 'smoking gun' evidence of a standard appropriate to justify the use of armed force, and that nothing less would constitute acceptable evidence.

This argument is worth some scrutiny. The UNSCOM inspections program of the 1990s established that Iraq's post 1990 capability was predominantly in battlefield weapons, and these largely comprising artillery munitions filled with blistering agents and G-series nerve agents. To achieve significant military effect with either category of chemical weapon, quite large quantities must be delivered - hundreds or thousands of kilograms of agent per attack.

The relatively modest lethality of these agents, which by design date back to the 1914-1918 and 1936-1945 periods, makes them cumbersome as strategic weapons or indeed as terrorist weapons.

In the context of the current War on Terrorism, much more relevant are those agents which have sufficient lethality to achieve strategic effect when deployed in much smaller quantities. Several kilograms of a V-series or Foliant series binary nerve agent, deployed by a ballistic missile, drone aircraft or terrorist against a densely populated urban area would produce significantly greater military/strategic effect than much greater quantities of a much less lethal G-series nerve agent or a blistering agent.

During the period following Iraq's defeat in 1991 and preceding the coalition invasion of Iraqi and ousting of the regime, Iraq's strategic focus and its relevant means of WMD delivery shifted. Rather than confronting human wave attacks of Iranian Revolutionary Guard Corps troops without chemical/biological protective suits Iraq faced the prospect of conflict either with Israel, or a US-led coalition, both equipped with good WMD protective capabilities and well developed doctrine.

From a military perspective large quantities of blistering agents or G-series nerve agents deliverable by artillery or multiple rocket launchers against

battlefield forces constitute an impediment to operations rather than a weapon of strategic relevance.

Conversely, a small quantity of a more lethal V-series nerve agent or biological agent such as anthrax, delivered either by covert insertion using operatives (ie state sponsored terrorists) or terrorist proxies against population centres in the US, EU or Middle East, would represent a much more relevant threat. No differently a ballistic missile, drone aircraft or suicide pilot flown combat aircraft could deliver a useful amount of such an agent against a target inside the Middle East, such as a US-aligned Arab state or Israel.

A single MiG-25 Foxbat fighter equipped with a 1,500 kg capacity drop tank filled with anthrax spore or a V-series nerve agent, and flown by a suicide pilot on a one-way supersonic high speed profile would be extremely difficult to intercept and could deliver a quantity of lethal agent which could inflict very significant civilian casualties against an urban target in the region. Even if shot down the aircraft's payload could contaminate a large area downwind making interception by Surface Air Missile batteries in the vicinity of capital cities quite problematic.

On the balance, the military payoff to the Baathist regime of small quantities of highly lethal agents was immeasurably greater than that of large quantities of much less lethal agents. Another consideration is that small quantities of highly lethal agents are much easier to conceal from UN inspectors and US/UK reconnaissance assets than large quantities of much less lethal agents.

It follows that the Iraqi regime had both strategic and pragmatic incentives to maintain small quantities of highly lethal agents rather than large quantities of much less lethal agents.

In terms of what expectations the world should have of a likely Iraqi WMD arsenal the odds must strongly favour small quantities of highly lethal agents, and the facilities to develop and manufacture these. The opportunity

to develop even more lethal agents like the Russian Foliant series would provide a genuine incentive, in this context, to maintain appropriate research and development capabilities.

A quantity as small as several truckloads of V-series agent or anthrax spore would be adequate to provide a strategically viable capability for the regime to credibly threaten its neighbours with - unlike G-series or blistering agents.

If the Iraqi WMD program reflected the strategic pressures the regime faced prior to 2003, the total quantity of weapons and R&D/production facilities required for these could be volumetrically quite small and thus not difficult to conceal quickly and effectively within a nation the size of Iraq.

Should we indeed assume a stockpile which could fit into several trucks or vans, then such a stockpile could be concealed most effectively within the Baath aligned rural areas north of Baghdad.

The expectation that such a concealed, or even dispersed, stockpile could be quickly found is not realistic unless an intelligence windfall of some kind occurs - such as the capture of personnel who concealed the items in question.

The strategic imperatives for the Baathist regime in the period preceding 2003 indicate that `smoking gun' quality WMD evidence could comprise as little as several truck payload sized quantities of lethal agents or production equipment.

End Submission