

The Baseline Intelligence

*Where is the wisdom we have lost in knowledge?
Where is the knowledge we have lost in information?
(Choruses from the Rock, T.S. Eliot)*

- 1.1 This chapter examines the body of information on Iraq's weapons of mass destruction (WMD) which formed the basis of pre-war assessments undertaken by Australia's intelligence agencies and its partner agencies in the US and UK prior to 19 March 2003. With respect to the Terms of Reference for this Inquiry, this chapter is intended to address the issues of:
 - The existence of Iraq's WMD,
 - The capacity and willingness of Iraq to use these weapons
- 1.2 The issue of the immediacy of the threat posed by these WMD is dealt with separately in Chapters 2 and 4 of this report.

Baseline figures - UNSCOM

- 1.3 As a starting point for the assessment of the intelligence information provided to Government by the various intelligence agencies, the Committee considered that it was necessary to establish a set of figures that set out as accurately as possible, the estimated level of WMD holdings by Iraq at the cessation of inspections by the United Nations Special Commission into Iraq, (UNSCOM), in December 1998. Included in these baseline figures are the numbers of the

various chemical and biological weapons and warheads, missile and other delivery systems, quantities of bulk agents and toxins, and bulk quantities of precursor chemicals and growth media. These baseline figures are derived from the Material Balance tables produced by UNSCOM for each of the respective Iraqi WMD programmes. In addition, to assist in providing the most up-to-date set of baseline figures, results from the inspection activities undertaken by the United Nations Monitoring, Verification and Inspection Commission, (UNMOVIC), during the period 27 November 2002 to 18 March 2003, have been included.

UNSCOM Inspections

- 1.4 During the period 1991 to December 1998 UNSCOM, in conjunction with inspectors from the International Atomic Energy Agency, (IAEA), undertook an extensive series of inspection activities in an attempt to validate the level of holdings of WMD which Iraq had declared following the 1991 Gulf War. As part of this declaration, Iraq also included quantities of chemical weapons, warheads, delivery systems, bulk agents and precursors which it (Iraq), claimed it had unilaterally destroyed in July 1991, (prior to the commencement of UNSCOM inspection activities). It should be noted that 'from the first UNSCOM inspections in 1991 until 1995 Iraq denied it had a biological warfare, (BW), programme and had taken steps to conceal it from the Special Commission.'¹ 'These included fraudulent statements, false and forged documents, misrepresentation of the roles of people and facilities and other specific acts of deception.'²
- 1.5 The inspection activities sought to investigate the history of each of Iraq's Chemical and Biological warfare (CBW) programmes in order to verify the 1991 Iraqi declaration of its holdings of CBW related equipment, materials and facilities, and where possible to validate the numbers of weapons and materials which had been unilaterally destroyed by Iraq. In order to work towards achieving these objectives, UNSCOM's inspection activities involved:
- evaluation and analysis of Iraq's declarations;
 - inspections of relevant sites in Iraq;

1 United Nations Special Commission (UNSCOM), Report No S/1999/94 dated 25 January 1999, Appendix III, Executive Summary, p. 101

2 *ibid*, Appendix III, p. 101

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- ⇒ interviews of Iraqi personnel connected to proscribed weapons programmes;
- seeking access to and study of relevant Iraqi documentation;
 - seeking assistance from Member States, particularly through the provision of relevant information, as required of them by the Security Council.³
- 1.6 The consolidated results for all of UNSCOM's inspection activities during the period 1991 to December 1998 are contained in its final report to the United Nations Security Council – UNSCOM Report No S/1999/94 dated 25 January 1999. The tables and figures relating to each of Iraq's WMD programmes contained in the UNSCOM report are too extensive to be included in this report. However, a series of summary tables based on the UNSCOM Material Balance have been prepared and are included in Appendix D to this report. The following sub-sections set out the salient points from each of the respective material balances.
- 1.7 During the course of this process, as the remaining stocks of proscribed items and materials were identified, they were:
- destroyed by UNSCOM, the IAEA, or under their supervision;
 - removed from Iraq in the case of nuclear programme related equipment, and retained under IAEA safeguard.
 - Rendered harmless by UNSCOM, the IAEA, or under their supervision;
 - secured under IAEA seal in the case of some nuclear related material; or
 - Cleared for release to Iraqi authorities for re-use in conventional roles.

Material Balance – Ballistic Missiles

- 1.8 Iraq's ballistic missile programme was extensive and consisted of imported missiles as well as imported and indigenously produced missile related operational assets. In its inspections UNSCOM focussed on the following key components: `the missiles as well as

3 *ibid*, p. 4

their launchers, warheads, and single use propellants for the proscribed missiles.⁴

- 1.9 A detailed breakdown of UNSCOM's accounting for the missiles, the launchers and warheads are set out in Part 1 of Appendix D to this Report. The discrepancies or the unaccounted for missiles and related systems can be summarised as follows:

Missiles

- 1.10 As part of its overall declaration in 1991, Iraq declared that it had imported 819 SCUD-B missiles, of which over half were subsequently modified by Iraq into the missiles known as the Al Hussein class of missiles. In late 1995, as a result of missile inventory checks, UNSCOM became aware of the existence of a further seven indigenously produced missiles.
- 1.11 Of these SCUD-B and Al Hussein missiles, 593⁵ were used prior to the 1991 Gulf War and their use has been accounted for. Of the remaining 226 imported and seven indigenously produced missiles, UNSCOM accounted for all except two imported and the seven indigenously produced missiles.

Missile Launchers

- 1.12 Iraq declared that it had 80 missile launchers in total, consisting of a mix of imported and indigenously produced mobile combat launchers, converted trailer launchers, fixed operational launchers and stand-by/training launchers. All 80 launchers were accounted for by UNSCOM as being either unilaterally destroyed by Iraq, destroyed under UNSCOM supervision, or released for conversion and use in non-proscribed activities.

Missile Warheads

- 1.13 The numbers of missile warheads declared by Iraq since 1991 have changed several times. The most recent figures provided in 1998 indicate that Iraq had a total of 940 warheads for the SCUD-B/Al Hussein missiles, consisting of 819 imported combat warheads, and 121 indigenously produced combat warheads. Of the 940 declared warheads, 75 were classed by UNSCOM as non-conventional or "Special Warheads" as they were filled or designed to be filled with

4 *ibid*, p. 18

5 *ibid*, p. 19

chemical or biological agents. All of these 75 special warheads were accounted for as follows:

- 30 were destroyed under UNSCOM supervision, and
- Remnants of 43 to 45 warheads were identified at the various unilateral destruction sites.

1.14 Notwithstanding the fact that all special warheads were accounted for, the discovery of 'degradation products of nerve agents, and in particular VX'⁶, on a number of the excavated warheads, conflicts with declarations provided by Iraq that 'the unilaterally destroyed special warheads had never been filled with any chemical warfare agents'.⁷ This issue then raised the question of whether or not all special warheads declared to have been produced by Iraq have been accounted for and their destruction verified.

1.15 To further complicate the overall accounting for missile warheads, of the 303 to 307 conventional warheads declared by Iraq as being unilaterally destroyed, 'some 25 imported warheads and some 25 Iraqi manufactured warheads'⁸ remain unaccounted for.

Material Balance – Chemical Weapons

1.16 Iraq's chemical warfare (CW) programme was by far the most extensive and advanced of all its WMD programmes. It consisted of: procurement and research and development activities; stockpiles of CW munitions and agents; and holdings of their precursors and large scale production facilities. 'Iraq declared overall holdings of more than 200,000 unfilled and filled special munitions (those produced and procured for CW and BW purposes during the entire period of the implementation of its CW programme.'⁹ Of this total of special munitions, Iraq claimed to have used about 100,000 filled special munitions during the period 1982 – 1988.

1.17 As of January 1991, Iraq declared that it had 127,941 filled and unfilled special munitions. A detailed breakdown of UNSCOM's accounting by type for these various CW munitions, the bulk CW agents and their precursors are set out in Part 2 of Appendix D to this

6 *ibid*, p. 29

7 *ibid*, p. 29

8 *ibid*, p. 27

9 *ibid*, p. 73

Report. The discrepancies, or unaccounted for CW munitions, bulk CW agents and chemical precursors can be summarised as follows:

Chemical Munitions

1.18 The Iraqi declaration of 127,941 filled and unfilled special munitions consisted of the following:

- **Destroyed during 1991 Gulf War:** Iraq declared that 41,998 filled and unfilled special munitions were destroyed during the 1991 Gulf War. It should be noted however, that UNSCOM only accepted the destruction of 34,000 munitions based on both physical and documentary evidence and the fact that extensive bomb damage to CW storage facilities precluded the completion of an accurate numerical count.
 - ⇒ As a result, UNSCOM concluded that `the destruction of about 2,000 unfilled munitions remains uncertain, and 550 filled munitions remain unaccounted for.’¹⁰
- **Unilaterally Destroyed by Iraq:** Iraq declared that it unilaterally destroyed 29,668 filled and unfilled munitions in July 1991, either by demolition or melting. As a direct consequence of the destruction methods used, UNSCOM was unable to account numerically for the total numbers of munitions declared as destroyed.
 - ⇒ As a result, UNSCOM accepted the destruction of about 13,660 munitions based physical and documentary evidence; however, most importantly, `about 100 munitions filled, according to Iraq, with BW agents remain unaccounted for.’¹¹
- **Munitions Remaining after 1991 Gulf War:** Iraq declared that 56,281 filled and unfilled munitions remained after the 1991 Gulf War. Of these, 40,048 were destroyed under UNSCOM supervision, and of the remaining 16,263 munitions, 15,616 were released to Iraq for conversion to conventional munitions. In accounting for the munitions which remained after the 1991 Gulf War, it is noted that UNSCOM accepted a discrepancy of several hundred munitions as a consequence of the difficulties and minor variations associated with physically counting large stockpiles of weapons.

10 *ibid*, p. 75

11 *ibid*, p. 75

Bulk Chemical Agents

- 1.19 Iraq declared that its CW programme resulted in the production of a total of 3,859 tonnes of bulk CW agents, with the CW agents Sarin (GB/GF), Tabun (GA) and Mustard being produced in large quantities. Iraq also declared that of this total figure 3,315 tonnes were weaponised and that about 80 per cent of this figure was used during the period 1982 to 1988. In addition, Iraq claimed that it had discarded some 130 tonnes of non-weaponised agent during this period. It should be noted, however, that UNSCOM could not verify the figures for total production and holdings due to the 'absence of information sought by the Commission from the suppliers'¹² and Iraq with respect to its CW programme.
- 1.20 In its declaration of bulk CW agent, Iraq stated that as of January 1991, it held 412.5 tonnes of bulk CW agents. Of this figure, 411 tonnes of bulk agents were subsequently destroyed under UNSCOM supervision and 1.5 tonnes of the nerve agent VX, which Iraq unilaterally declared as having been discarded, remained unaccounted for.

Precursor Chemicals

- 1.21 In undertaking its entire CW programme, Iraq declared that it had either produced or imported some 20,150 tonnes of precursor chemicals, and that of this figure only 14,500 tonnes were used in the production of CW agents and other key precursors. UNSCOM noted, however, that they could not fully verify the figures relating to Iraq's CW production programme 'due to the absence of sufficient evidence provided by Iraq and its foreign suppliers'.¹³
- 1.22 In its precursor chemicals declaration, Iraq stated that as of January 1991, it held 3,915 tonnes of precursor chemicals. These were subsequently accounted for as follows:
- **Destroyed during 1991 Gulf War:** Iraq declared that 823 tonnes were destroyed during the 1991 Gulf War. UNSCOM qualitatively confirmed this figure, but was unable to verify it quantitatively.
 - **Unilaterally Destroyed by Iraq:** Iraq declared that it unilaterally destroyed 242 tonnes of precursors in July 1991, including 'all

12 United Nations Special Commission (UNSCOM), Report No S/1997/774, dated 6 October 1997, p. 11

13 United Nations Special Commission (UNSCOM), Report No S/1999/94 dated 25 January 1999, p. 82

precursors for the production of VX.¹⁴ UNSCOM indicated, however, that the quantity declared as unilaterally destroyed was only partially accounted for.

- **Precursor Chemicals Remaining after 1991 Gulf War:** UNSCOM accounted for the remaining 2,850 tonnes of precursor chemicals. Of this figure, 2,610 tonnes of key precursors were destroyed under UNSCOM supervision.

Material Balance – Biological Weapons

Iraq's offensive BW programme was among the most secretive of its programmes of weapons of mass destruction. Its existence was not acknowledged until July 1995. During the period from 1991 to 1995 Iraq categorically denied it had a biological weapons programme and it took active steps to conceal the programme from the Special Commission. These included fraudulent statements, false and forged documents, misrepresentation of the roles of people and facilities and other specific acts of deception.¹⁵

1.23 By far the greatest impediment to UNSCOM's efforts to assess and establish an accurate picture of the extent of Iraq's BW programme was an almost total lack of supporting documentation. This situation arose as a result of a decision by Iraq in 1991 to destroy all documents relating to its BW programme, and subsequently manifested itself in often conflicting and contradictory evidence being presented to UNSCOM inspectors as they attempted to quantify and verify the nature and extent of Iraq's BW programme. The net result being that after:

- assessing three separate Full, Final and Complete Disclosures by Iraq with respect to its BW programme,
- conducting 35 BW verification inspection missions, and
- correlating this information with other information such as that provided by Iraq's former suppliers,¹⁶

UNSCOM had no confidence that all bulk agents have been destroyed; that no BW munitions or weapons remain in Iraq; and that a BW capability does not still exist in Iraq.¹⁷

14 *ibid*, p. 83

15 *ibid*, p. 108

16 *ibid*, p. 104

- 1.24 A breakdown of UNSCOM's accounting by type for the various BW munitions, the bulk BW agents and growth media are set out in Part 3 of Appendix D to this Report. The discrepancies, or unaccounted for BW munitions, bulk BW agents and growth media can be summarised as follows:

BW Munitions and Weapon Systems

- 1.25 Notwithstanding Iraqi claims that it destroyed all its BW munitions and related weapons systems in 1991, UNSCOM inspection and verification activities identified the following discrepancies between declared and actual (verified), figures:

- R-400 Aerial Bombs: 157 unaccounted for.
- Aerosol Generators (Heli-borne): 12 unaccounted for.
- Mobile transfer tanks (1 m³): In excess of 20 unaccounted for.

In addition, evidence was presented by Iraq which indicated the development of a pilotless MIG 21 aircraft for use as a delivery system. However, it was unclear whether it was to be used to carry chemical or biological agents. There was also no evidence to confirm that the project was dropped in 1991 prior to its completion.

Bulk Biological Agents

- 1.26 The figures presented by Iraq as representing the quantities of bulk BW agents produced were all characterised by uncertainty and a total lack of supporting documentation. In particular, UNSCOM considered that the figures provided for the quantities of Bulk BW agent which were unilaterally destroyed by Iraq in 1991 were all contrived – estimates based on estimates of usage and losses etc. As a consequence, UNSCOM was **unable** to determine a figure for the unaccounted for quantity for any of the bulk BW agents declared by Iraq.
- 1.27 In the summary of its BW inspection activities, UNSCOM stated in relation to quantities of bulk BW agents produced, quantities used in filling BW munitions and quantities declared as being unilaterally destroyed, that it had 'little or no confidence in the accounting for proscribed items for which physical evidence is lacking or

inconclusive, documentation is sparse or non-existent, and coherence and consistency is lacking'.¹⁸

Bacterial Growth Media

- 1.28 The quantities of growth media declared by Iraq, like those for the bulk BW agents, were characterised by considerable uncertainty and a lack of supporting documentation. For example, the figures provided by Iraq for the amounts of growth media used in the production of the various BW agents were based on the production quantities of the agents, which were themselves estimates.
- 1.29 Deficiencies were also noted in the quantities of growth media declared by Iraq as being imported when compared to the actual quantities shipped by international suppliers. Furthermore, there was no evidence to support the acquisition of quantities of growth media which were claimed by Iraq as having been acquired locally.
- 1.30 As a result, UNSCOM considered that the accuracy of the derived figures for growth media acquisition, usage and disposal as declared by Iraq could not be verified. However, as a consequence of being aware of how much growth media was imported by Iraq and how much was destroyed under the Commission's supervision, UNSCOM was able to derive the following minimum figures for the quantities of growth media which were considered to be unaccounted for:
- Casein: 460 kg, (sufficient to produce 1,200 litres of botulinum concentrate).
 - Thioglycollate Broth: 80 kg.
 - Yeast Extract: 520 kg, (sufficient to produce 26,000 litres of anthrax).
 - Peptone: 1,100 kg, (sufficient to produce 5,500 litres of perfringens concentrate).

Material Balance – Nuclear

- 1.31 As noted previously in paragraph 1.3 of this report, the numerous inspection missions and consequent determination of extent and state of Iraq's nuclear weapons programme was conducted by inspectors from the International Atomic Energy Agency (IAEA). Whilst these

inspections were generally conducted separately from the UNSCOM inspections, they were often conducted in conjunction with them.

- 1.32 The IAEA undertook an extensive and intrusive programme of inspections and verification activities during the period 1991 to 16 December 1998, when both UNSCOM and IAEA inspection activities were suspended and representatives of the respective organisations departed Iraq. The IAEA in its Report No S/1999/127 dated 9 February 1999 stated that its:

extensive verification activities in Iraq, since May 1991, have yielded a technically coherent picture of Iraq's clandestine nuclear programme. These verification activities have revealed no indication that Iraq possesses nuclear weapons or any meaningful amounts of weapon-usable nuclear material, or that Iraq has retained any practical capability (facilities or hardware) for the production of such material.¹⁹

- 1.33 The IAEA qualified this indication taking into account the degree of uncertainty that has and still exists with respect to Iraq's compliance with its obligations under the relevant Security Council resolutions. The qualification states that:

the IAEA despite its extensive verification measures, cannot provide absolute assurance of the absence of readily concealable items, such as components of centrifuge machines or copies of weapon-related documents. Similarly it should be recognised that verification measures cannot guarantee detection of readily concealable or disguisable activities, such as computer-based weaponisation studies, explosives experimentation or small scale centrifuge cascade development. A statement by the IAEA that it has found "no indication" of prohibited equipment, materials or activities in Iraq is not the same as a statement of their "non-existence".²⁰

- 1.34 The specific detail relating to the scope and status of Iraq's nuclear weapons programme is set out in Attachment 1 to UN Security Council Report S/1997/779, dated 8 October 1997. A summary of the detail of Attachment 1, also taken from the same report, is included in Part 4 of Appendix D to this report as the material balance for Iraq's nuclear programme.

19 United Nations Security Council Report S/1999/127, dated 8 February 1999, p. 14

20 *ibid*, p. 15

UNMOVIC update to Material Balance Figures

- 1.35 During the latter half of 1998, despite numerous assurances by Iraq that it would cooperate with UNSCOM, the level of restrictions imposed by Iraq on inspection activities continued to increase to the extent where the Executive Chairman, Dr Richard Butler, in his 15 December 1998 report to the United Nations Security Council stated that in 'the absence of full cooperation by Iraq, it must regrettably be recorded that the commission is not able to conduct the substantive disarmament work mandated to it by the Security Council'.²¹ UNSCOM ceased its inspection activities in Iraq on 17 December 1998.
- 1.36 On 17 December 1999, as a result of the adoption of the United Nations Security Council Resolution 1284 (1999), the United Nations Monitoring, Verification and Inspection Commission (UNMOVIC) replaced UNSCOM. However, as a result of Iraq's continued refusal to cooperate with the United Nations, inspection missions did not recommence until 27 November 2002.
- 1.37 From the commencement of inspections in Iraq on 27 November 2002 until the day of the withdrawal of all United Nations personnel on 18 March 2003, UNMOVIC conducted 731 inspections, covering 411 sites, 88 of which had not been inspected before.²²As a consequence of these inspections, the following amendments were made to the material balance tables produced by UNSCOM:
- **Ballistic Missiles Material Balance:** The figures for unaccounted for Al Hussein missiles remain unchanged at nine, and the figure for unaccounted for Al Hussein warheads also remains unchanged at 50. UNMOVIC did however conclude that the Iraqi Al Samoud 2 missiles were, under the terms of Security Council resolution 687 (1991), a proscribed item. All Al Samoud 2 missiles, warheads and associated equipments were accounted for by UNMOVIC, however not all components were destroyed prior to 18 March 2003. The missiles and equipment remaining to be destroyed consisted of 25 missiles, 38 warheads and 6 each of the launchers and command vehicles. These changes are not reflected in Part 1 of Appendix D to this report as it was based only on figures derived for the Al Hussein class of missiles, its warheads and associated equipment.

21 United Nations Security Council Report S/1999/1172, dated 15 December 1998, p. 8

22 United Nations Security Council Report S/2003/580, dated 30 May 2003, p. 6

- **Chemical Weapons Material Balance:** In an overall sense the numbers of additional chemical munitions discovered by UNMOVIC was considered to be small and therefore did not result in any change to the material balance figures produced by UNSCOM. However, the following items were destroyed under UNMOVIC supervision:
 - ⇒ 14 artillery shells, (155 mm), which were filled or had been filled with mustard gas.
 - ⇒ 18 missile warheads (122 mm), of which seven were filled with water and 11 were empty.
 - ⇒ 500 ml of thiodiglycol, which is a precursor for the production of mustard gas.

These additional figures are not reflected in Part 2 of Appendix D to this report as they are relatively small and can be considered as included in the discrepancies accepted in deriving the original figures for chemical weapons.

- **Biological Weapons Material Balance:** Of the 157 R-400 aerial bombs previously declared by Iraq as having been filled with BW agents and unilaterally destroyed in 1991, UNMOVIC inspections were able to confirm the destruction of 128 of these bombs. In addition, 244.6 kg of declared but expired growth media was destroyed under UNMOVIC supervision. These new figures are included in Part 3 of Appendix D to this report.
- **Nuclear Weapons Material Balance:** 'Between 25 November 2002 and 17 March 2003, Agency, (IAEA), inspections teams carried out 237 inspections at some 148 locations, including 27 new locations.'²³ As a result of these inspections the IAEA stated that:
 - ⇒ It had not found any substantiated evidence of the revival of a nuclear weapons programme.
 - ⇒ In the areas of uranium acquisition, concentration and centrifuge enrichment, extensive field investigation and document analysis revealed no evidence that Iraq had resumed such activities.²⁴
 - ⇒ It had 'observed a substantial degradation in facilities, financial resources and programmes throughout Iraq that might support a nuclear infrastructure.'²⁵

23 IAEA Report GOV/2003/50-GC(47)/10, dated 8 August 2003: *Implementation of United Nations Security Council Resolutions Relating to Iraq*, p. 3

24 *ibid*, p. 4

25 *ibid*, p. 4

The IAEA noted, however, that, in order to fully verify the above statements, a longer period of inspections would be required, as well as the implementation of an extensive and sophisticated ongoing monitoring and verification system. The latter would be required to reduce the uncertainties associated with the verification process and to 'act as a deterrent to the resumption by Iraq of its nuclear weapons programme'.²⁶

Additional Intelligence – Post 1998

- 1.38 In order to gain a more complete understanding of the intelligence assessments which were used to inform decisions taken by Government in the lead-up to the commencement of military operations in Iraq in March 2003, it is also necessary to consider the intelligence which was sourced by the Australian and coalition intelligence agencies from other than UNSCOM or UNMOVIC. The intelligence view of Iraq's WMD as derived from UNSCOM and UNMOVIC, while representing a substantial proportion of the intelligence picture on Iraq's WMD programmes prior to March 2003, did not cover the period from the withdrawal of UNSCOM in December 1998 through to the commencement of UNMOVIC inspections in late November 2002, the period when Saddam reportedly recommenced activity on his WMD programmes. In addition, as a direct consequence of the events of 11 September 2001, both the US and UK intelligence agencies, through their declared "War on Terrorism", had applied a substantial intelligence gathering effort on the broader Middle East and more latterly Iraq.
- 1.39 As a result of this increased intelligence effort, a number of strategic issues which were linked to Iraq's WMD programme, and which were to become important supporting evidence to the decision to go to war in Iraq, were brought to light. Of these issues, four in particular, which were considered to be fundamental to the existence of WMD in Iraq and to the capacity of Iraq to use them, would also create a deal of controversy among the intelligence agencies, especially in the US, over the accuracy and reliability of the information presented and the nature of the assessments drawn from that information. The four issues were:

- The attempt by Iraq to acquire uranium from Africa.
- The acquisition by Iraq of high-strength aluminium tubes for alleged use in the centrifuge enrichment process.
- The use of mobile BW production laboratories.
- The development of unmanned aerial vehicles, (UAVs) for the delivery of BW and CW agents.

1.40 It is important to highlight the chronology of the unfolding of these issues as they are relevant to examining how the Australian intelligence agencies viewed, assessed and reported them to government. The examination of the conduct of the intelligence assessments undertaken by the Australian intelligence agencies is dealt with in Chapters Two, Three and Four of this report. In addition, these issues were considered to be important factors in assessing Iraq's capacity and willingness to use its WMD, as well as the immediacy of the threat posed by them.

Attempt to source Uranium from Africa

1.41 A detailed chronology of Iraq's alleged attempts to source uranium from Africa is set out at Part 1 to Appendix E to this report. The following is a summary of the salient events and issues from the chronology:

- The US Central Intelligence Agency (CIA) first became aware that Iraq was attempting to acquire uranium oxide from Africa in late 2001/early 2002. However, within a couple of months of the receipt of this intelligence, other US intelligence agencies had indicated the information was not credible.²⁷
- In June 2002 the UK Secret Intelligence Service (SIS) also acquired intelligence regarding Iraq's attempt to import uranium from Africa.
- Despite some continued dissenting views over this issue, especially within the US, the issue featured prominently in a number of major policy statements within the US and the UK in late 2002 and early 2003.
- The US Secretary of State in his address to the United Nations Security Council on 5 February 2003 did not include reference to

²⁷ It should be noted that this information was not passed on to intelligence agencies in Australia or the UK.

the uranium from Africa issue following advice from within the State Department that they could not confirm the reports.

- The Director General of the IAEA in his update to the United Nations Security Council on 7 March 2003 advised that the IAEA had concluded 'with the concurrence of outside experts, that these documents – which formed the basis for the reports of recent uranium transactions between Iraq and Niger – are in fact not authentic.'²⁸
- The UK, however, based on information from a second independent source, continued to believe that Iraq had sought to negotiate the purchase of uranium from Africa. The veracity of this claim was accepted by the UK's Parliamentary Intelligence and Security Committee in its investigation into the UK intelligence assessments of Iraq's WMD during August – September 2003.

1.42 Thus it can be seen that there was intelligence available to both support as well as counter the claim that Iraq had attempted to source uranium from Africa. As a result, a conclusive judgement one way or the other would be difficult, although, given the IAEA's thorough investigation of this issue and the unwillingness of the UK intelligence services to provide any further evidence for their ongoing view,²⁹ the claim could more readily be considered to be false. A final determination with respect to this issue may be achieved through the current activities of the US led Iraq Survey Group (ISG). However, the reported systematic mass destruction of documents and computer hard drives either during or immediately after the 2003 Gulf War, will make this task extremely difficult.

Acquisition of Aluminium Tubes for use in Centrifuge Enrichment

1.43 A detailed chronology of Iraq's acquisition of high-strength aluminium tubes for supposed use in gas centrifuges is set out at Part 2 to Appendix E to this report. The following is a summary of the salient events and issues from the chronology:

- The CIA first became aware of Iraq's purchase of aluminium tubes in July 2001 when approximately 3000 tubes were intercepted on

28 Director General IAEA, *Status of Nuclear Inspections in Iraq: An Update*, 7 March 2003, p. 3

29 The FAC of the UK Parliament commented that 'it was very odd ... that eight months later the Government was still reviewing the evidence.' See House of Commons, Foreign Affairs Committee, *The Decision to go to War in Iraq*, July 2003. p. 24. The Committee is aware that the UK ISC did review the 'other intelligence' and found it 'reasonable.'

their way into Iraq. In late 2001, the first dissenting view on their intended use was expressed by US centrifuge experts.

- Throughout the period January to early September 2002, the US President and other high-level US government representatives continued to emphasise the threat posed by Iraq's nuclear programme.
- In September – October 2002, the CIA, at the request of the US Senate Select Committee on Intelligence, prepared a National Intelligence Estimate (NIE) on Iraq's WMD programmes. A key judgement of the NIE was that, while 'Saddam does not yet have nuclear weapons or sufficient material to make any, he remains intent on acquiring them.'³⁰ The NIE also expressed the dissenting views on this issue by experts from the US Energy Department and more importantly, from the US State Department's Bureau of Intelligence and Research, albeit in an appendix to the main document.
- In early January 2003 the IAEA as a result of its inspection activities reported that 'analysis to date indicates that the specifications of the aluminium tubes sought by Iraq in 2001 and 2002 appear to be consistent with reverse engineering of rockets. While it would be possible to modify such tubes for the manufacture of centrifuges, they are not directly suitable for it.'³¹ Despite this IAEA report and further counter evidence from US intelligence analysts, the US President, the Secretary of State and other senior government representative made a number of official statements throughout January and early February, which included reference to the aluminium tubes as a component of Iraq's nuclear programme.
- In mid February the Director General of the IAEA confirmed that as a result of their inspection programme the IAEA had found no proscribed nuclear or nuclear related activities in Iraq. However, he added that a number of issues remained the subject of on-going investigations.

1.44 The key factor which is evident in the review of the aluminium tubes issue is that from the outset, opinion among intelligence analysts as well as experts was divided on the intended use of the tubes. It is also

30 CIA National Intelligence Estimate, *Iraq's Weapons of Mass Destruction Programs*, October 2002, p. 1

31 Director General IAEA, *Status of the Agency's Verification Activities in Iraq As of 8 January 2003*, 9 January 2003, p. 2

apparent that the dissenting views, while continuing to increase during the latter part of 2002, were not appropriately considered by the CIA and the executive of the US administration as it did not support or add to the case for taking military action against Iraq over its protracted and intransigent refusal to comply with the requirements of the various United Nations Security Council resolutions on Iraq's WMD. On the other hand however, the UK having also noted the issue, were more circumspect in their assessment of the intended use of the tubes.

- 1.45 The specific conclusions reached by the IAEA in its investigation of the issue are considered to clearly indicate that the aluminium tubes were not intended for use in gas centrifuges, but rather as Iraq had declared, for use in the reverse engineering of rocket motors. It is also considered noteworthy that the interim report of the ISG makes no reference to the issue of aluminium tubes in its subsequent investigation of Iraq's nuclear programme, although it did find 'indications that there was interest, beginning in 2002, in reconstituting a centrifuge enrichment program.'³²

Mobile Biological Agent Production Laboratories

- 1.46 A detailed chronology of Iraq's supposed development and use of mobile BW agent production laboratories is set out at Part 3 to Appendix E to this report. The following is a summary of the salient events and issues from the chronology:
- Details relating to the inception of an Iraqi mobile BW and CW production capability are at best very sketchy. UNSCOM reported that Iraq had considered the use of mobile production facilities as early as 1995. Information from defectors in late 2002 indicated that Iraq had converted a fleet of refrigerator trucks into mobile BW production facilities.
 - Both the UK, in its Dossier on Iraq's WMD (dated 24 September 2002), and the CIA in its National Intelligence Estimate (dated October 2002), indicated that Iraq possessed a BW agent production capacity based on the use of mobile facilities.
 - The US President in his State of the Union Address on 28 January 2003 and in particular, the Secretary of State in his address to the

32 Dr David Kay, *Interim Progress Report on the Activities of the Iraq Survey Group (ISG) before the House Permanent Select Committee on Intelligence, The House Committee on Appropriations, Subcommittee on Defense and the Senate Select Committee on Intelligence*, 2 October 2003, p. 8

United Nations Security Council on 5 February 2003, referred to the existence of Iraqi mobile BW production facilities. However, in March 2003 the Executive Chairman of UNMOVIC in his report to the United Nations Security Council indicated that 'several inspections have taken place at declared and undeclared sites in relation to mobile production facilities. ... No evidence of proscribed activities have so far been found.'³³

- During late April and early May 2003, two mobile laboratory trucks were discovered in the north of Iraq. The CIA and the US Defense Intelligence Agency reported that they could be used to support a BW programme or legitimate research. However, senior Iraqi officials claimed the trailers were for the production of hydrogen for artillery weather balloons. The US State Department's Bureau of Intelligence and Research also disputed the CIA findings, stating 'that it was premature to conclude that trailers were evidence of such weapons'.³⁴
- The controversy over the trailers further increased when the Executive Chairman of UNMOVIC commented that 'neither the information presented nor pictures given to us by the Iraqi side, match the description that has recently been made available to us ... by the United States.'³⁵
- As a result of doubts about the trailers by US intelligence analysts, the UK dispatched a separate team to examine the trailers. They concluded that the trailers were not mobile BW laboratories, but were as the Iraqis had insisted, 'for the production of hydrogen to fill artillery balloons'.³⁶
- The ISG in its October 2003 interim report to various intelligence committees of the US Senate and Congress could not confirm the existence of mobile BW production facilities. However, among a number of possible uses for the trailers, they would not rule out BW agent production.

33 Executive Chairman of UNMOVIC, Oral introduction to the 12th quarterly report of UNMOVIC, 7 March 2003

34 D. Jehl, *After the War: Intelligence; Agency Disputes CIA View On Trailers as Weapons labs*, The New York Times, 26 June 2003, p. 1

35 Executive Chairman of UNMOVIC, Oral introduction to the 13th quarterly report of UNMOVIC, 5 June 2003

36 P. Beaumont and A. Barnett, *Iraqi mobile labs nothing to do with germ warfare, report finds*, The Observer, 15 June 2003

- 1.47 The review of the chronology of the alleged mobile BW production facilities again highlights, especially during the latter stages of the issue, the apparent disregard of dissenting views within the US on the use of the trailers as again, they did not support or add to the case for taking military action against Iraq over its continued refusal to comply with the requirements of the various United Nations Security Council resolutions on Iraq's WMD. In terms of assessing the accuracy of the intelligence and information available, it is considered that the reporting from UNMOVIC should be taken as being the most authoritative, as it is based on inspection activities which directly addressed the issue, and the fact that the independent UK assessment of the trailers arrived at a similar conclusion.

Unmanned Aerial Vehicles (UAVs) for BW and CW agent Dissemination

- 1.48 A detailed chronology of Iraq's programme of development of UAVs to disseminate BW and CW agents is set out at Part 4 to Appendix E to this report. The following is a summary of the salient events and issues from the chronology:
- Iraq declared to UNSCOM in 1995 that prior to the 1991 Gulf War it had conducted some developmental work on an unmanned delivery system for BW agents. Iraq declared that this programme was halted as a result of the 1991 Gulf War; however, UNSCOM were unable to find any clear evidence to indicate the project had been terminated.
 - As a result of Operation Desert Fox in December 1998, UK based intelligence indicated that Iraq had converted a number of L-29 aircraft into UAVs for delivery of BW and CW agents. US intelligence analysts were however, more circumspect in their assessment and considered their use for agent delivery only as a possibility.
 - From 2000 through to mid 2002, US intelligence sources continued to report on Iraq's conversion of L-29 aircraft which 'may be intended for the delivery of chemical and biological agents.'³⁷
 - In early September 2002 the UK based International Institute for Strategic Studies released its Net Assessment of Iraq's WMD. This was followed later that month by the UK Government's Dossier on

37 US Secretary for Defense, *Proliferation: Threat and Response – January 2001*, 10 January 2001, p.42

Iraq's Weapons of Mass Destruction, and on 1 October the CIA provided to the US Administration its classified National Intelligence Estimate (NIE) on Iraq's WMD programmes. All three documents referred to Iraq's development of UAVs for the probable delivery of BW agents in particular, and possibly CW agents. The NIE noted the dissenting opinion of UAV specialists from the US Air Force.

- During the period late October 2002 to February 2003, a number of key public statements were made in the US and all contained reference to Iraqi UAVs and their probable use to disseminate BW and CW agents.
- In February 2003, following an inspection of an Iraqi UAV, UNMOVIC stated that they believed that 'Iraq's unmanned aerial vehicle programs were for reconnaissance'³⁸ purposes rather than for use in their CBW programme as had been suggested by Secretary of State Powell and others.
- In October 2003, the ISG in its Interim report to the various intelligence committees of the US Senate and Congress reported that 'Iraq was continuing to develop a variety of UAV platforms and maintained two UAV programs',³⁹ and that these were the subject of on-going examination by the ISG.

1.49 From the above review of the chronology of intelligence on Iraqi UAV, it is evident that Iraq had developed, and were continuing to develop a number of types of UAV. Opinion on their intended use however, remains divided. Given that Iraq initially declared that it intended to use an aircraft (a MIG 21), as a UAV to deliver BW agents, it is considered highly probable that Iraq had intended to pursue the use of UAVs as part of its BW programme and possibly its CW programme. The further activities of the ISG will therefore be important in establishing the full nature and extent of the Iraqi UAV programmes and whether or not they were linked to Iraq's BW or CW programmes.

38 D. Linzer and J. Lumpkin, *Weapons experts: Iraqi drones posed no threat*, Associated Press, 25 August 2003, p. 2

39 Dr David Kay, *Interim Progress Report on the Activities of the Iraq Survey Group (ISG) before the House Permanent Select Committee on Intelligence, The House Committee on Appropriations, Subcommittee on Defense and the Senate Select Committee on Intelligence*, 2 October 2003, p. 9

Iraq's Capacity and Willingness to use WMD

1.50 Iraq's capacity to use WMD is derived from the combination of a series of key enabling factors. These have been identified as: the possession of the weapons themselves, or at least the ability to produce them at relatively short notice; the availability of appropriate and serviceable delivery systems; and the doctrinal aspects of command, control, training and logistics support within the Iraqi military organisation. Without all of these being present it is considered that it would not be possible, or at least extremely difficult, for Iraq to launch a coordinated and sustained campaign involving the use of CW and BW. The factors that would provide an indication of Iraq's capacity to use WMD can be summarised as follows:

- **Possession of BW and CW munitions:** Despite Iraq's various declarations with respect to its manufacture of BW and CW munitions and bulk agents, its declared use of CW in the 1980 – 88 Iran – Iraq War, its declared unilateral destruction of its BW and CW stocks in mid 1991, and the destruction of further stocks of munitions and bulk agents by UNSCOM, there remained, according to UNSCOM, various quantities of BW and CW munitions and bulk agents which were not accounted for. These figures have been confirmed and updated by subsequent UNMOVIC inspections. The more recent activities of the ISG, despite having received 'multiple reports that Iraq retained CW munitions made prior to 1991, possibly including mustard',⁴⁰ has not located any stockpiles of BW and CW munitions. It is therefore considered that as a minimum, the unaccounted for BW and CW munitions could constitute Iraq's immediate WMD capability prior to the 2003 Gulf War.
- **Capacity to Produce further BW and CW Munitions:** UNMOVIC through the conduct of its inspections during the period 27 November 2002 to 18 March 2003 reported to the United Nations Security Council that it 'did not find evidence of the continuation or resumption of programmes of weapons of mass destruction or significant quantities of proscribed items'⁴¹. It should also be noted that the ISG, as a result of its more recent investigations, 'discovered dozens of WMD-related program activities and

40 *ibid*, p. 7

41 United Nations Security Council Report S/2003/580, dated 30 May 2003, pg 5

significant amounts of equipment that Iraq concealed from the United Nations'.⁴² However, these in the main related to research and development activities or the retention of skills rather than the direct production of bulk quantities of BW and CW agents. The ISG is continuing its investigations of a number of possible dual-use commercial chemical facilities in order to determine whether they were used, or planned to be used as alternative CW production sites. Therefore, it can be argued that prior to the March 2003 Gulf War, it is unlikely that Iraq possessed any capacity to produce further BW or CW munitions and bulk agents.

- **Availability of delivery systems:** The number and variety of WMD capable delivery systems possessed by Iraq was considered to be extensive, ranging from Al Hussein ballistic missiles, 122 mm rockets, numerous types and sizes of aerial bombs, 155 mm artillery guns and possibly includes UAVs and aircraft spray tanks. Notwithstanding the fact that the majority, if not all these systems, also has a conventional warfare role, they are, with the exception of 155 mm artillery guns, all included on the UNSCOM/UNMOVIC list of unaccounted for proscribed items. Therefore, it can be considered that Iraq did possess a capacity to deliver CW and BW munitions prior to the March 2003 Gulf War. It is noted, however, that the more complex of these systems, in particular the Al Hussein missiles, may not have been readily useable due to inadequate levels of maintenance and other serviceability problems. It is considered that use of complex delivery systems, particularly at short notice, would have been problematic.
- **Iraqi military doctrine, command, control, training and logistic support for the deployment and use of BW and CW:** The use by Iraq of chemical weapons during the 1980 – 1988 Iran – Iraq war is clear evidence that the deployment and use of WMD was a key component of Iraq's strategic and military doctrine. It also indicated that the necessary command, control, training and logistics processes were in place and effective all the way down the chain of command to the tactical level. The extent to which this capacity had been degraded through non-use throughout the 1990s is not well reported as the majority of intelligence effort was focussed on the WMD production programmes themselves. In late 2002, UK intelligence assessed that 'Iraq's current military

42 Dr David Kay, *Interim Progress Report on the Activities of the Iraq Survey Group (ISG) before the House Permanent Select Committee on Intelligence, The House Committee on Appropriations, Subcommittee on Defense and the Senate Select Committee on Intelligence*, 2 October 2003, p. 4

planning specifically envisaged the use of chemical and biological weapons'⁴³, and that 'Iraq's military forces are able to use chemical and biological weapons, with command, control and logistical arrangements in place.'⁴⁴ However, reporting by the ISG following the 2003 Gulf War indicates that they 'have not yet found evidence to confirm pre-war reporting that Iraqi military units were prepared to use CW against Coalition forces.'⁴⁵ Thus, while it was generally believed that Iraq was militarily capable of deploying and using its WMD prior to the commencement to the 2003 Gulf War, the fact that it did not do so raises the question that it may not have been capable of doing so.

- 1.51 The UK Institute of International and Strategic Studies in its net assessment of Iraq's WMD capability also noted that Iraq's offensive CW doctrine was not well understood and that 'virtually nothing is known about command and control and delegation of authority'⁴⁶ for the use of chemical weapons beyond Iraq's post 1991 Gulf War 'claims that commanders were authorised to use CBW if they believed ... coalition forces were advancing towards Baghdad.'⁴⁷

Iraq's Willingness to use WMD

- 1.52 The fact that Iraq had in the past used chemical weapons against Iran as well as against its own people, indicates a clear willingness on the part of the Hussein regime to use WMD offensively. However, Iraq's willingness to use of WMD during the 1980s needs to be viewed in the context of Iraq's desire to maintain its strategic dominance within the Middle East region, combined with the fact that the use of such weapons was not likely to precipitate a greater or more lethal response from its regional neighbours. However, following Iraq's invasion of Kuwait on 2 August 1990 the balance of power within the Middle East region was, to say the least, significantly altered.
- 1.53 During the lead-up to the March 2003 Gulf War, Saddam's enduring desire to possess WMD, including nuclear weapons, continued to be

43 The UK Government, *Iraq's Weapons of Mass Destruction, The Assessment of the British Government*, 24 September 2002, p. 17

44 *ibid*, p. 17

45 Dr David Kay, *Interim Progress Report on the Activities of the Iraq Survey Group (ISG) before the House Permanent Select Committee on Intelligence, The House Committee on Appropriations, Subcommittee on Defense and the Senate Select Committee on Intelligence*, 2 October 2003, p. 7

46 The International Institute of Strategic Studies, *Iraq's Weapons of Mass Destruction – A Net Assessment*, London, 9 September 2002, p. 72

47 *ibid*, p. 72

well reported and was used extensively in the UK and the US as evidence to support the argument for taking military action against Iraq. The UK Joint Intelligence Committee assessed that 'Saddam is willing to use of chemical and biological weapons, including against his own Shia population.'⁴⁸ The US Secretary of State in his address to the United Nations Security Council on 5 February stated:

Saddam Hussein has chemical weapons. Saddam Hussein has used such weapons. And Saddam Hussein has no compunction about using them again -- against his neighbors and against his own people. And we have sources who tell us that he recently has authorized his field commanders to use them. He wouldn't be passing out the orders if he didn't have the weapons or the intent to use them.⁴⁹

- 1.54 Intelligence agencies in both the UK and the US also assessed that Iraq could, as a means of last resort, be prepared to use CBW in the event that Saddam's regime was under threat of being toppled.
- 1.55 Notwithstanding the emphasis that was placed on the potential for Iraq to use chemical and biological weapons, and that coalition forces discovered abandoned chemical suits and gas masks in Iraqi defensive positions in southern Iraq, the fact is none were used during the March 2003 Gulf War. The question, therefore, of whether or not Iraq had actually retained any chemical and biological weapons, and if it did, why weren't they prepared to use them, remains difficult to answer. Indeed, it is further compounded by the recent findings of the Iraq Survey Group that they had 'not yet found evidence to confirm pre-war reporting that Iraqi military units were prepared to use CW against Coalition forces'⁵⁰.
- 1.56 According to Mr Terence Taylor, a former UN weapons inspector, one of a number of possible answers to this question is:

Once they use them, the whole world community would turn against them and everyone would say the Americans and

48 The UK Government, *Iraq's Weapons of Mass Destruction, The Assessment of the British Government*, 24 September 2002, p. 19

49 US Secretary of State, *Iraq Failing to Disarm*, Address to the United Nations Security Council, 5 February 2003, p. 12

50 Dr David Kay, *Interim Progress Report on the Activities of the Iraq Survey Group (ISG) before the House Permanent Select Committee on Intelligence, The House Committee on Appropriations, Subcommittee on Defense and the Senate Select Committee on Intelligence*, 2 October 2003, p. 7

British were right. Even the French have said they would join the coalition if chem-bio was used.⁵¹

51 D. Linzer, *Abandoned chemical suits may be clues to Iraqi plans*, Associated Press, 25 March 2003