Email between officials, dated 16 September 2002, sent at 18:23, titled 'Iraq Dossier - Answers to further questions', covering attachment titled '02-09-17 Response to Questions'

#### [redacted]

PSA our response to the questions you posed earlier this afternoon.

#### [redacted]

Attachment titled '02-09-17 Response to Questions'

From: [redacted], ADI PS MINISTRY OF DEFENCE

Room 357a, Old War Office Building Whitehall, London, SW1A 2EU

Direct Dial: 020 7 218 5820 Switchboard: 020 7 218 9000 Facsimile: 020 7 218 4391 BRENT: 0207 218 7479

[redacted]

JIO Assessments Staff Your reference:

Room 243

Cabinet Office Our Reference: D/DI PS/8/1/2

70 Whitehall

London SW1A 2AS Date: 17 September 2002

#### **IRAQI WMD DOSSIER - QUESTIONS**

Our responses to your questions posed are as follows:

1. What is our view about the defector quoted in the news paper - al Hadiri?

We had no information of anyone of that name being in the nuclear or WMD programmes. However, we gather he was an engineer working on buildings and not a scientist working on the programme. We believe his level of access was very limited and the details he has provided, to be superficial.

2. How many years/months did UNSCOM/IAEA state that Iraq was from having a nuclear weapon in 1991, and were there any caveats?

The IAEA did not believe that Iraq was developing a nuclear weapon, and in 1991 didn't have a clue about the Iraqi nuclear weapons programme. The IAEA

Iraq Action Team, once in country, were very surprised at the programme that Iraq had undertaken and the progress made. The IAEA is in no position to make such a judgement, as it does not have expertise in nuclear weapon design. The Iraqi Action Team of the IAEA called a meeting in 1992 of key experts from the P4 to address the status of the programme. Essentially the verdict of the UK expert ([redacted]) held sway, i.e. three years from January 1991 (not "less than three years" as stated in the dossier – this was a "refinement" added by a Minister in the House!)

3. What is the position of Hickmat al-Jalu at al Tamriyah?

He previously worked in the nuclear weapons programme, petrochemical-3, [redacted] he was the Director General of the site, which also goes under the name of the Ibn Sina Research Centre [redacted]

4. Why are we sure that Haidar Taha at Fallujah is the one from pre-Gulf War - is it photographic comparison or intelligence?

We cannot be certain, and have no way of checking. From the photo he looks about the right age and there was such an individual with this name working from 1984 to the end of the Gulf war on the CW programme, researching mustard gas.

5. Names of key BW and nuclear people still in the country who could assist with any programme?

Most of the BW and Nuclear staffs remain in Iraq. We have some 3,000 people associated (probably half indirectly) with Iraq's CBW programmes; and a data base with about 1,300 names on it on the nuclear side - most could assist with the new programme, and many are brigaded in Centres of excellence. To pick out a few key players is extremely difficult – they all contribute. [Note: There were over 7,000 scientists, engineers and technicians working in PC3 as of 1991 [redacted]. If you add several hundred working in the EDC on centrifuges, there must have been about 8,000 staff on the entire programme. I have a listing of the senior group and team leaders as of 1991, but do not know

BW: See Annex A

[redacted]

In 1997 L-29 programme officials were looking for a more modern (probably more stable) aircraft for the L-29 programme and at the time the L-39 was a strong candidate. We have no information on extending the range of helicoptors.

how many are now alive or otherwise available. [redacted]

- 6. What do each of the items in nuclear procurement list do i.e. vacuum pumps?
- aluminium: gas centrifuge rotor tubes.
- ii) vacuum pumps: for the creation and maintanence of low pressures in centrifuge cascades.
- iii) magnets: motors and top bearings of gas centrifuges.
- iv) filament winding machine: manufacture of carbon fibre gas centrifuge rotors, also for using carbon fibre windings to strengthen aluminium rotor tubes.
- v) balancing machines: to balance centrifuge rotor tubes and end caps to rotate at very high speeds.
- 8. What were Iraq's illicit earnings in 1998 and 2000? Has there been a steady increase over last x years?

According to our figures, Iraq's illicit earnings over past years have been:

1999 - \$800m - \$1bn

2000 - \$1.5bn - \$2.0bn

2001 - \$3bn

We do not have comparable figures for pre-1999. As you can see, there has been a steady increase over the past three years. This is mainly due to increased exploitation of the UN OFF programme and increased illegal oil exports. The \$1bn+ increase from 2001 over 2000 was almost entirely due to a full year of operating the Iraq-Syria oil pipeline.

[redacted]

ADI PS WH357A 85820MB Brent 020 7218 7479

# Annex A [why are there 2 annex As? Need to make this clear] IRAQI BW PERSONALITIES

#### Annex B [see comment above]

# L-29 PROGRAMME STATUS POST OPERATION DESERT FOX

#### (i) HISTORY

- 1. In 1990 the Iraqi high command ordered the production of a UAV for CBW delivery<sup>1</sup>. This resulted in an attempt to convert MiG-21 aircraft to this role. Spray tank testing, using an Anthrax simulant, took place in the late 1990 using Mirage F-1 drop tanks. However, the programme failed due to technical difficulties. The programme was declared to The United Nations Special Commission (UNSCOM) as being terminated. (C AUS/CAN/UK/US)
- 2. In 1995 the L-29- Al-Bai'aa programme, was ordered by Saddam Hussein. The overall project control was handed to his son Udai, until an assassination attempt in 1996 when he was seriously injured and as a result the project was handed over to a senior entity in the Military Industry Commission (MIC). (C AUS/CAN/UK/US)

# (ii) NUMBERS OF L-29/UAV IN THE PROGRAMME<sup>2</sup>

[redacted]

#### (iii) POST DESERT FOX

4 As a result of Operation Desert Fox the L-29 hangers at Tikrit and Samarra East were successfully targeted and two L-29/UAV were probably destroyed. [redacted] (S)

#### (iv) SYSTEM COMPONENTS/CAPABILITIES

- 5. The L-29 UAV consists of the following mobile components:
  - a. L-29 UAV is fitted with cockpit camera, nose camera and instruments camera. Views from these are transmitted to ground station and the ground station pilot selects the required view. (S)
  - b. [redacted]

DI55 Tech Memo 55/51/98 - L-29 Project

<sup>&</sup>lt;sup>2</sup> [redacted]

(v) OPERATIONAL TRAINING
[redacted]
(vi) OPERATIONAL ASSESSMENT
[redacted] The L-29 UAV programme is assessed to have achieved an operational capability in the RPV role, out to a maximum range of 150 km. [redacted]
(vii) THE L-39 LINK
[redacted]
(viii) L-29 PROGRAMME ASSOCIATED IMAGES
[redacted]



L-29 Test Bed (C)



Ground Control Station and Video boom-truck(C)

• Email between officials, dated 16 September 2002, sent at 18:52, titled 'FW: IRAQ DOSSIER – IMMEDIATE FOR JIC MEMBERS'

[redacted]

My comments are as follows

- 1. Exec Summ. Para 1: No mention of use of BW agents, this is described later in the text.
- 2. Part 1 Chapter 3 POint 12: 'We know from int that Iraq has continued to produce BW agents. This is quite strong considering what the int actually saya
- 3. Part 1 Chapter 3 Point 12 2<sup>nd</sup> Bullet point. Probable Rennovation at Al Daura FMD: The probable renovation cannot be linked to the current BW programme
- 4. Part 1 Chapter 3 Point 12 3<sup>rd</sup> bullet point: Ameriya Serum and Vaccine Institute has increased its storage capacity: Again there is no int to suggest that the increase in capacity is in any way linked to current BW activity
- 5. Part 1 Chapter 3 Point 16: Iraq has continued to produce BW; again too strong
- 6. Part 2 Point 4 Last bullet: Is massive the correct term for Iraq's BW programme compared to say Russia
- 7. Conclusion: BW production has continued: too strong

• Email between officials, dated 17 September 2002, sent at 08:45 titled '02-09-17 Comment on Final Draft (FLASH)'

Gents,

PSA comments on final draft for discussion this morning.

There is no significance of the coloured fonts, this was for our benefit. Hopefully there are not too many mistakes, but at 11.30 last night we were getting a bit bleary eyed!

#### [redacted]

Attachment titled '02-09-17 Comment on Final Draft.doc'

From: [redacted], ADI PS MINISTRY OF DEFENCE

Room 357a, Old War Office Building Whitehall, London, SW1A 2EU

Direct Dial: 020 7 218 5820 Switchboard: 020 7 218 9000 Facsimile: 020 7 218 4391 BRENT: 0207 218 7479

[redacted]

JIO Assessments Staff Your reference:

Room 243

Cabinet Office Our Reference: D/DI PS/8/1/2

70 Whitehall

London Sw1A 2AS Date: 17 September 2002

#### **IRAQI WMD DOSSIER - COMMENTS ON REVISED DRAFT (15 SEPT 2002)**

#### Exec Summ. Para 1:

No mention of use of BW agents, this is described later in the text at page 12, Para 10. (Aflatoxin)

# **Executive Summary, Para 3 - 1<sup>st</sup> Bullet:**

The judgement "has continued to produce chemical and biological agents;" is too strong with respect to CW. "has probably" would be as far as I would go. And "continued to produce BW agents". This is quite strong considering what the int actually says. . [Iraq has a biological production capability and can produce at least anthrax, botulinum toxin, aflatoxin and ricin within day of the

# order to do so. Sought mobile facilities to produce biological agents. [redacted]]

# Executive Summary, Para 3 - 2<sup>nd</sup> Bullet:

The judgement "has military plans for the use of chemical and biological weapons, some of which could be ready within 45 minutes of an order to use them". Is also rather strong since it is based on a single source. "Could say intelligence suggests..."

#### **Executive Summary, Para 3 - Bullet 4 and 5:**

Switch the order.

# **Executive Summary, Para 3 - 5<sup>th</sup> Bullet:**

Delete "programes".

# **Executive Summary, Para 3 - 11<sup>th</sup> Bullet:**

Insert wording "engine test stand for DEVELOPMENT OF missiles..."

#### Part 1, Chapter 2, Para 1 - Box on effect of Chemical Weapons:

"..grammes kills.. people." I stongly advise against quoting toxicity values in these terms. Something which has been used by the press often in the past. Such an expression fails to take into account efficiency of dissemination and is therefore grossly misleading.

### Part 1, Chapter 2, Para 4 - Line 4:

Add "...research centre. The Russian research reactor worked up to 1991. The surge..."

#### Part 1, Chapter 2, Para 4 - Line 10:

Add One of the French reactors...

#### Part 1, Chapter 2, Para 5 - Line 12:

Add "..under construction. <u>However, Iraq never succeeded in its EMIS technology, and the programme had been dropped by 1991</u>. Centrifuge facilities..."

#### Part 1, Chapter 2, Para 5 - Line 17:

Add ".. the Gulf War, the crash programme.."

#### Part 1, Chapter 2, Para 6 - Lines 1-4:

Rewrite as follows: "Iraq's declared aim was to produce a weapon missile warhead [Iraq always maintained that it only wanted a BM warhead, and had never looked seriously at air-delivery.] with a 20-kiloton yield and weapons designs were produced for both a simple gun type device and for more complex [No!, Iraq was adamant that they never had a gun-assembly design] the simplest implosion weapons. The latter These were similar to the device used at

Hiroshima Nagasaki [Hiroshima was a gun-assembly device] in 1945. Iraq was also starting to working on more advanced concepts.

#### Part 1, Chapter 2, Para 6 - Last line:

Add "Iraq was three years away ... Comment: It says "By end of 1991 later.

#### Part 1, Chapter 2, Para 7:

Change "Most" to "Many".

#### Part 1 Chapter 2 Para 7:

Numbers before war: "Iraq had about 250 imported SCUD-type missiles before the Gulf War plus an unknown number of indigenously produced engines and other components."

[redacted]

### Part 1, Chapter 2, Para 12:

This section now claims to cover the programmes until 1998, but entirely omits the work underway from shortly after the Gulf War on the permitted versions of Al Samoud and Ababil-100.

#### Part 1, Chapter 2, Para 12:

Delete the sentence "Armed with conventional warheads they only done limited damage".

#### Part 1 Chapter 2 Para 12 last but 1 line.

Delete "It is not clear....missiles" Comment. Iraq conducted a test firing of CW-warhead. There is no reason to doubt that they could be mated with the missile. The sentence adds nothing.

#### Part 1, Chapter 2, Para 13 - Line 2:

Insert the word "weapons" after chemical and biological.

#### Part 1, Chapter 2, Para 13 - Line 6:

Amend to read "..over 150km, and the capability to develop and produce them. The..."

#### Part 1, Chapter 2, Para 13 - Line 8:

Delete "and the IAEA."

#### Part 1, Chapter 2, Para 13 - Line 10:

Amend to read " The IAEA also destroyed..."Delete "and the IAEA."

#### Part 1, Chapter 2, Para 13 - Line 11:

Amend to read " They also destroyed the infrastructure for Iraq's nuclear weapons programme, and removed key nuclear materials."

#### Part 1, Chapter 2 Para 13 line 12.

Amend to read: "...see Part 2). Because of this, by 1998, ...."

#### Part 1, Chapter 2, Para 16:

The statement "....Iraq continues to produce chemical and biological agents." This is too strong. See comment above. Suggest "may continue to produce" even "probably continues to produce".

# Part 1, Chapter 3, Para 1 - 1<sup>st</sup> Bullet

The statement "which has included recent production of chemical and biological agents;" is too strong from the CW perspective. This is based on a single source.

# Part 1, Chapter 3, Para 1 - 5<sup>th</sup> Bullet:

The last sentence might better read "It has also begun the development of .....". This seems to sit better with the position as represented in the opening words of Paras 26 and 29 in the same Chapter.

#### Part 1, Chapter 3, Para 1 - Last Bullet:

Delete "despite the parlous state of Iraq's economy"

#### Part 1, Chapter 3, Para 2 - Line 9:

Amend to "..in mobile production centres, based on trailers and railway wagons."

#### Part 1, Chapter 3, Para 4 - Line 3:

Amend to "...within weeks and nerve agents of Sarin and VX..."

#### Part 1, Chapter 3, Para 5 Recent Intelligence

From the CW perspective the language is too strong since this information is based on single sources. The wording "Intelligence shows that" is too strong and inappropriate "reports that", "indicates that", "suggests that" would be more appropriate.

#### Part 1 Chapter 3 Para 8 - Line 1

The statement "Intelligence confirms that Iraq has continued to produce chemical agent." This is far too strong considering the available evidence. The word confirms is totally inappropriate. "Intelligence suggests that...." would be better

#### Part 1 Chapter 3 Para 9:

We are not sure that we can support the assertion that Fallujah II gives Iraq a capacity well beyond that required by Iraq's civilian needs?

Part 1 Chapter 3 Para 10 – Line 8

Amend to read: "The Director General of the research centre is Hickmat..."

#### Part 1, Chapter 3, Para 12:

The statement "We know from intelligence that Iraq has continued to produce BW agents". This is quite strong considering what the int actually says. [Iraq has a biological production capability and can produce at leeast antrax, botulinum toxin, aflatoxin and ricin within day of the order to do so. Sought mobile facilities to produce biological agents]

#### Part 1, Chapter 3, Para 12 - Line 7:

"The experienced personnel who were active in the programme have largely remained in the country. They are.. (List supplied)

# Part 1, Chapter 3, Para 12, 2<sup>nd</sup> Bullet point:

The probable renovation at Al Daura cannot be linked to the current BW programme. Suggest delete "This has probably be renovated;" Alternatively put This has probably been partially renovated.

Also there is no mention of media visits anywhere in the paper.

# Part 1, Chapter 3, Para 12, 3<sup>rd</sup> bullet point:

Amend as follows: Ameriya Serum and Vaccine Institute at Abu Ghraib where UNSCOM ... was used to store biological agents, seed stocks and conduct BW-associated genetic research prior to the Gulf War." There is no intelligence to suggest that the increase in capacity is in any way linked to current BW activity.

# Part 1, Chapter 3, Para 14, 3<sup>rd</sup> Bullet point - Lasts line, Amend to read: "...agent over a large area."

#### Part 1 Chapter 3 Para 16:

The statement "Iraq has continued to produce CBW agent". Some elements of the summary repeat the same overly strong statements as in the rest of the chapter.

### Part 1 Chapter 3, Para 19:

Proposed new re-wording: "Although the IAEA dismantled the physical infrastructure of the Iraqi nuclear weapons programme, including the dedicated facilities and equipment for uranium separation and enrichment, and for weapon development and production, and removed the remaining high enriched uranium, Iraq retained, and retains, its experienced nuclear scientists and technicians, specialised in the production of fissile material and weapons design. Some 8,000 technical staff worked on the pre-Gulf War programme. They include ... The former head of the Petrochemicals 3 nuclear weapon programme, Jafa'ar Dhia Jafa'ar, has become a Presidential advisor. Other senior nuclear scientists and engineers such as Mahdi al-'Ubaidi, Khalid Sa'id, 'Abdul Qadir Ahmed and Dhaffir al-'Assawi have also moved to head non-nuclear establishments. All could return to their former key positions. It also retains the accompanying programme documentation and data, which was withheld from supposedly all handed over to the inspectors.

#### Part 1 Chapter 3, Para 21:

Amend to read "Following the expulsion departure [they were never expelled!] of weapons inspectors in.."

#### Part 1 Chapter 3, Para 22:

Usage of equipment acquired in support of nuclear programme. Comment passed back to Assessment Staff. (See DIS note dated 17/9/02)

#### Part 1 Chapter 3, Para 24:

Amend to read: "The continuing existence of the specialist teams and back-up data means that, were Iraq to obtain fissile material <u>and essential components</u> from abroad, the timeline would be much shorter".

#### Part 1 Chapter 3, Para 24 - RDDs:

This section should be deleted, as it weakens the case! However, if there is an overarching need to retain it the following wording should be used: "Iraq experimented with radiological dispersal devices (RDDs) during 1987, This programme never progressed beyond the research stage, and was dropped". If retained a title is needed.

#### Part 1, Chapter 3, Para 28:

If we want to express a degree of ambiguity about availability of retained Al Hussein for use, I suggest "We do not know their true state of readiness" instead. This formula has been used in previous assessments and covers variables other than just whether all are fully assembled.

#### Part 1, Chapter 3, Para 32 - Line 5:

Following previous point, too many "somes" and "items" in the next sentence - suggest "dual use nature of such materials".

#### Part 1, Chapter 3, Para 32 - Line 9:

Insert word "near complete sets of solid propellant rocket motor".

#### Part 1, Chapter 3, Para 34 - Line 4;

Insert words "including for chemical, biological, nuclear <u>and missile</u> programmes"; or "WMD programmes".

Part 2, Para 1 - Box UNSCR 707

Suggest Changing position of 2<sup>nd</sup> and 3<sup>rd</sup> sentences for clarity/impact.

Part 2, Para 3 - 5th line

Amend to read: "...timeframe and took covert action to hide significant elements of its WMD programmes."

#### Part 2. Para 4. Last bullet:

Is massive the correct term for Iraq's BW programme compared to say Russia

#### Part 2, Para 8, Line 6:

Amend to ".. acknowledged that it had <u>had a nuclear weapon programme</u>, <u>and</u> pursued a biological programme that led to the deployment of actual weapons."

Part 2, Para 7 - Box – 5<sup>th</sup> Bullet Suggest swapping order of sentences.

Part 2, Para 9 - Box Second para

Put last sentence of para 2 to end of para 1 – it deals with al-Hakam.

#### Part 2, Para 13, Box on UNSCOM Achievements:

Amend as follows:

UNSCOM surveyed 1015 sites in Iraq, carrying out 272 separate inspections. Despite Iraqi obstruction and intimidation, UN inspectors uncovered details of chemical, biological, nuclear and ballistic missile programmes. One of the main discoveries was that at the time of the Gulf War, [Iraq had been within 3 years—NPD checking UNSCOM language] Iraq had a comprehensive, well-resourced nuclear weapon programme, and was about three years from of acquiring a nuclear weapon. Other major UNSCOM/IAEA achievements included:

- the destruction of 40,000 munitions for chemical weapons, 2,610 tonnes of chemical precursors and 411 tonnes of chemical warfare agent;
- the dismantling of Iraq's prime chemical weapons development and production complex at Al-Muthanna, and a range of key production equipment;
- the destruction of 48-SCUD type missiles, 11 mobile launchers and 56 static firing sites, 30 warheads filled with chemical agents, and 20 conventional warheads;
- the destruction of the Al-Hakam biological weapons facility and a range of production equipment, seed stocks and growth media for biological weapons;
- the discovery in 1991 of 15 kg samples [a misleading figure, if it is accurate]
   of indigenously-produced highly enriched uranium, forcing Iraq's
   acknowledgement of uranium enrichment programmes and attempts to
   preserve key components of its prohibited nuclear weapons programme;
   and
- the removal and destruction of the infrastructure for the nuclear weapons programme, including the Al-Athir weaponisation/testing facility.

Part 2, Para 15 - Line 7/8

Amend to read: "...result on December 16....inspectors had been .."

#### **Part 2, Para 19:**

Amend to read: "The departure of the Inspectors greatly diminished the <u>UN's</u> our ability to monitor and assess Iraq's continuing attempts to reconstitute its chemical, biological, nuclear and ballistic missile programmes. [This says that the purpose of UN inspections was to allow the UK Government (and by implication the US) to monitor (ie spy) on Iraq's programmes! So, Saddam was correct that UNSCOM was just a front for his enemies to spy! I think this should be dramatically reworded.]

#### Conclusion, Para 2 - Box on CBW

As before statements such as "Production has continued" - too strong "Some weapons could be deployed within 45 minutes of an order" - based on single source.

#### Conclusion, Para 2 - Box on Missiles:

Should be by replacing "Developing" by "Beginning development of". I would also suggest reversing the order of the points 2 and 3.

#### Late Changes:

#### [redacted]

Part 3: paras 5-12 (Repression of Kurds and Shias): this will criticised as too historical. It need not be:

- Para 9 (Kurds) begins "The regime has tried to displace..." giving the
  impression that this was as long ago as everything else and is no longer a
  factor. But this "ethnic cleansing" is, I believe, a continuing feature. The
  tense needs changing to the present one in a number of sentences. Should
  we use the term "ethnic cleansing"?
- Paras 10-12 (Shia) gives the impression that suppression of the Shia occured between 1979-early 90s. As recently as 1999 (check date) Saddam was widely thought responsible for the assassination of Iraq's leading Shia cleric (I've forgotten his name). This lead to major disturbances throughout Iraq's Shia regions. This was put down ruthlessly and with force by the Iraqi authorities. They bulldozed entire villages to the ground this was seen in imagery but has been publicised before. Why not use it?

• Email between officials, dated 17 September 2002, sent at 14:32, titled 'VX lethality'

[redacted]

The wording on VX lethality that [redacted] has agreed to is as follows:

"Theoretically, one kilogram of VX is sufficient to kill about 200,000 people by direct administration. But taking into consideration efficiency of dissemination and prevailing meteorological conditions on the battlefield, in practice the number of fatalities would be a small fraction of this."

 Email between officials, dated 17 September 2002, sent at 14:43, titled '[redacted] Comments on Iraq Dossier, covering attachment titled '[redacted] Comments'

#### [redacted]

These were some comments that [redacted] produced this morning. We had no time to incorporate into my comment.

You may like to consider some of the point he raises.

#### [redacted]

Attachment titled '[redacted] Comments'

# 17 Sep 02

[redacted]

#### **IRAQ DOSSIER**

#### PART 3 - IRAQ UNDER SADDAM

- 1. This LM is written in response to a request for [redacted] comment on the final draft of the Iraq dossier. Part 3 of the dossier is a late addition; these comments represent an initial assessment of the content and are restricted exclusively to Part 3 "Iraq Under Saddam".
- 2. In general, the factual evidence in part 3 of the dossier is accurate.
- 3. In terms of format, the focus seems to be placed on highlighting Saddam's internal human rights record. It is noteworthy that Saddam's treatment of the Kurds and Shias is placed ahead of the section "Saddam's Wars", whereas these wars have provided the catalyst for much of the internal repression (eg Saddam's suppression of the Shia uprisings post 1991 Gulf War). In paras 5 and 6 both the Iran/Iraq war and the Gulf War are highlighted as precursors for Saddam's regime of internal repression. It is felt that the text would read more logically if the wars were covered prior to the section on internal repression.
- 4. Para 4, along with the associated box, deals with Saddam's internal security apparatus (it should be noted that the first sentence of para 4 is syntactically flawed). This section could be expanded. Saddam's personal security regime and the role of his inner circle are not covered. The SRG's role in defending both the regime and Baghdad against internal military challenges from the RGFC and RA could be described. Saddam's paranoia of coup plotting and his oppressive reaction to this is worth highlighting.

5. It is noted that there is no coverage of attempts within the last 10 years to overthrow or assassinate Saddam – attempts that have helped to aggravate the oppressive nature of the regime. The failure to cover this in the dossier may be for good political reasons [redacted] although it is felt that inclusion of this evidence would provide a fuller picture of the regime. Further down the road this evidence may help in justifying US thinking that large scale military action, as opposed to covert action, may be the only sure way of removing Saddam.

 Email between officials, dated 17 September 2002, sent at 14:49, titled 'Iraq Dossier (Acquisition of Uranium)'

#### [redacted]

Suggested wording for the last sentence of Para 21: "Iraq has no nuclear research or power reactors, and therefore has no legitimate reason to require uranium in those quantities." or, you could revert to the text used in the Exec summary Para 3, Bullet 6.

[Note: We cannot state that Iraq has no civil nuclear programme. It may be a very low level research programme, but Iraq could maintain that it conducts work into the peaceful uses of nuclear science in support of medical and agriculture applications.]

• Email between officials, dated 17 September 2002, sent at 15:01, titled 'Iraq Dossier [redacted]'

• Email between officials, dated 17 September 2002, sent at 15:14, titled 'RE: lraq Dossier [redacted]'

[redacted]

• Email between officials, dated 17 September 2002, sent at 15:09, titled 'Iraq Dossier [redacted]'

• Email between officials, dated 18 September 2002, sent at 10:13, titled 'RE: Dossier – nuclear parts'

[redacted]

Yes - they have never admitted it, [redacted]

[redacted]

• Email between officials, dated 18 September 2002, sent at 09:25, titled 'FW: Dossier – nuclear parts'

PS

In paragraph 19 of chapter 3 we state that "Iraq also retains the accompanying programme documentation and data, which was supposedly handed over to the inspectors". How do we know they still have it? Should it start "Intelligence indicates that Iraq....?

Email between officials, dated 18 September 2002, sent at 09:22, titled
 'Dossier – nuclear parts'

#### [redacted]

We've had some comments bacfrom No10 and as a result we are introducing two more text boxes. The first is to highlight the lack of a civil nuclear programme and the second is to summarise all the timelines. I have drafted both. Can you and copy addresses have a look at them and let me have comments by 1200.

#### Box 1

Iraq's civil nuclear programme

- \* Iraq has a small programme which produces medical isotopes. This does not require uranium.
- \* Iraq has no nuclear power plants and therefore no requirement for uranium as fuel
- \* Iraq's research reactors are non-operational

#### Box 2

Timelines summary

- \* If Iraq acquired fissile material and essential components from abroad Iraq could produce a nuclear weapon in between one and two years.
- \* While sanctions remain effective, Iraq would not be able to produce a nuclear weapon, because it would not be able to indigenously produce the necessary fissile material.
- \* If sanctions are removed or become ineffective, it would take Iraq at least five years to produce a nuclear weapon using indigenously produced fissile material.

Thanks

 Email between officials, dated 18 September 2002, sent at 17:50, titled 'Iraq Dossier (Nuc box 1)'

#### [redacted]

Proposed amendments to Box 1 (nuclear) are:

- \* Iraq's long-standing civil nuclear power programme is limited to small scale research. Activities that could be used for military purposes are prohibited by UNSCR 687 and 715.
- \* Iraq has no nuclear power plants and therefore no requirement for uranium as fuel.
- \* Iraq has a number of nuclear research programmes in the fields of agriculture, biology, chemistry, materials and pharmaceuticals. None of these activities require more than tiny amounts of uranium which Iraq could supply from its own resources.
- \* Iraq's research reactors are non-operational.

BOX 2 is ok.

• Email between officials, dated 18 September 2002, sent at 15:54, titled 'Ibn Sina @ Tarmiya'

We spoke.

This is a pilot plant for the production of AP (propellant ingredient for solid rocket motors).

It was known to UNSCOM, who visited it, and watched as it was built

How UNSCOM found out about it (whether found by them, tipped off by Western int or told by the Iraqis) is lost in the mists of time.

[redacted]

Rgds.

• Email between officials, dated 18 September 2002, sent at 17:43, titled 'Text Box on Nuclear Weapons (U)'

This is the bnest I can do in 40 minutes!

[redacted]

Attachment titled 'Possible text box on Nukes.doc'

# Possible text box

How to make an "Atomic Bomb"

A typical **nuclear fission weapon** consists of

- **Fissile material** for the core, which gives out huge amounts of explosive energy from nuclear reactions when made "super critical".
  - Usually either high enriched uranium (HEU) or weapon-grade plutonium.
  - HEU can be made in **gas centrifuges** (see separate box).
  - Plutonium is made by reprocessing fuel from a nuclear reactor.
- **Explosives** to compress the nuclear core.
  - Complex arrangement of detonators, explosive lenses and explosive charges to produce a regular and rapid compression of the core.
- **Electronics** to fire the explosives.
  - **Fuzes** to trigger the weapon.
  - Special capacitors, switches and other components to fire the detonators.
- Neutron initiator to provide initial burst of neutrons to start the nuclear reactions.
  - Simplest initiators use special radioactive isotopes.
- Warhead engineering to support all the many components.
  - The slightest movement of any components could make the weapon fail.
- Delivery system
  - Missile warhead
  - Dropped by aircraft

**Weaponisation** is the conversion of these concepts into a rugged, reliable weapon.

- Develop a **weapon design** through sophisticated science and complex calculations.
- Engineering design to integrate with the delivery system.
- Specialised equipment to **cast** and **machine** safely the **nuclear core**.
- Specialised equipment for the safe production of the **explosives**.
- Development of weapon electronics.
- Dedicated facilities to **assemble** the warheads.
- Facilities to rigorously test all individual components.
- Facilities to test complete design to withstand **transport**, **storage** and **delivery**.
- "Cold test" the weapon design (with a simulated core).

• Email between officials, dated 19 September 2002, sent at 10:37, titled '[redacted] - THE MISSILE QUESTIONS'

[redacted]

We spoke and I have put a call out to the experts.

However, if you need an answer instantaneously I would personally advise:

- 1. We could say that Al Samoud has been deployed, but not Ababil 100.
- 2. Suggest no change on Ababil 100 range. Am sure range could be extended now at the expense of a reduction in payload, but this system is not in full scale production yet. Could also be a hostage to fortune if UNMOVIC have a look at it and decide that it's within limits.

Will provide advice from those who really know when I get it.

Rgds.

• Email between officials, dated 19 September 2002, sent at 14:14, titled 'RE: <u>Iraq VX production'</u>

[redacted]

The report No is [redacted]

• Email between officials, dated 19 September 2002, sent at 15:28, titled '[redacted]'

You might like to look at [redacted]. I think that justifies the wording in the Dossier, [redacted].

 Email between officials, dated 19 September 2002, sent at 16:16, titled 'DRAFT FOR APPROVAL BY [redacted]'. Covering attachment titled 'DOSSIER – final draft'

[redacted]

Grateful if you could pass this wording to the Director for his approval please.

Many thanks

[redacted]

Attachment titled 'DOSSIER – final draft'

Many thanks for your letter of this morning. Due to the pressure of other urgent commitments, [redacted] asked [redacted] to reply and he has approved these comments:

#### **Executive Summary, Paragraph 3**

We note that this section of the Dossier quotes the IISS estimate that Iraq could assemble nuclear weapons within months of obtaining fissile material from foreign sources. However, we do not provide our own, different, timeline in the Executive Summary and it does not appear until Chapter 3, paragraph 23 of the document. This could give the, misleading, impression that we endorse the IISS timeline. We acknowledge that this is an editorial point, but we would like to ask that it should be considered once more.

#### **Chapter 2, Paragraph 6, Final Sentence**

As we have noted previously this quotes an IAEA timeline which is shorter than one, which is not quoted, that has been used in public by a Minister. While this is another editorial point, we would ask that the decision to quote the IAEA estimate in isolation should be looked at once again.

#### Chapter 2, Paragraph 10

[redacted]

I hope that this is helpful

•	Email between officials, dated 19 September 2002, sent at 17:25, titled 'Comments on Final draft'	
[redacted]		
PS	SA .	
En	joy?	
[re	dacted]	

 Email between officials, dated 19 September 2002, sent at 12:01, titled 'RE: IRAQ DOSSIER - [redacted]'

[redacted]

Executive Summary - The only people who think that nuclear will be a big issue are the media. Of the four disciplines, it is the least likely to be involved and the least important. The current Executive Summary has the issues in the correct proportion.

Page 10, para 5 (I think) - [redacted] that the description of the Crash programme is unclear. If we had more space we could have added that Iraq chose gas centrifuge enrichment over the EMIS programme, on which it had already spent huge resources, because EMIS had got virtually no-where and centrifuge technology showed more promise. We assess that the larqis were correct in this decision: they will eventually succeed if allowed to progress, where EMIS may never have been successful.

Page 24, para 18 - As stated in the para, this is a fair reflection of [redacted]

Page 25, para 21 - This was not [redacted] wording. [redacted]

[redacted]

• Email between officials, dated 19 September 2002, sent at 10:47, titled 'RE: IRAQ DOSSIER - [redacted]'

[redacted]

No further news on obtaining a copy of the latest draft of the Dossier

Rgds.

[redacted]

• Email between officials, dated 19 September 2002, sent at 10:03, titled 'IRAQ DOSSIER - [redacted]'

[redacted]

Also, the latest draft of the Dossier is about to go into No. 10. I have asked the C.O. if we can have a copy and they have said they will look at the possibility. (Latest draft is on v. tight hold.)

Rgds.

Email between officials, dated 20 September 2002, sent at 12:37, titled
 'Dossier extra nuke question re IAEA'

How about the following.

In 1997 the International Atomic Energy Agency/ suggested that in 1991 Iraq could have made a nuclear weapon in a year but for the Gulf War. Why do you judge it would have taken longer?

If Iraq's nuclear "crash programme" in 1990 had been successful, it could have produced quickly fissile material. But the weapon design programme was still some way from completion. We have based our judgement (that it would have taken three years from 1991) on decades of experience of nuclear weapon design and production in the UK. Such expertise is not available in the IAEA.

 Email from John Williams to John Scarlett (copy list including Mark Sedwill, Ed Owen, D Pruce, A Kelly, Edward Chaplin, Richard Stagg, William Ehrman, Charles Gray, Stephen Pattison, Tim Dowse, Mark Matthews, Andrew Patrick and J Miller), dated 17 September 2002, sent at 12:49, titled 'Irag - Dosseir'

The new draft of the dossier now looks like a paper that will persuade those who have an open mind, with one important exception. That is the nuclear passage, particularly paragraphs 18, 23 and 24, which I found confusing. Indeed, I would expect most journalists to conclude on the basis of paragraph 18 that we have no basis for action because the sanctions are working perfectly well.

I offer this simply as a prediction of how the media will read this passage.

#### Two matters of style:

- I understand why you have chosen an unrhetorical tone, but it would be possible to carry the argument more vigorously in the executive summary without a complete change of approach; I will not burden you with suggestions unless a strategic decision is taken to change the way the executive summary is written.
- The conclusion is counter-productive; it serves no purpose that is not already served by the executive summary; and if taken alone, particularly by a sceptical broadcaster holding it up to a camera, it could be portrayed as "all we've got"; I would drop it.

The crucial chapter 3 is, with the exception already mentioned, a convincing and detailed portrayal trying in every way it can to get its hands on weapons it is not fit to be trusted with.

John

 Amended minute from Sir David Omand, Security and Intelligence Coordinator & Permanent Secretary to the Cabinet Office, to John Scarlett, dated 19 September 2002.

TO JOHN SCARLETT

Cc Alastair Campbell Jonathan Powell David Manning JIC Members

#### DOSSIER

I have one comment on the Executive Summary of the Dossier, just circulated by your office. It is deigned to take account of the main point Ann Taylor made to us this morning. Namely, that we need to emphasis that Iraq agreed as part of the ceasefire to be disarmed under international supervision – and this dossier reveals the truth about how Iraq has evaded that obligation. Otherwise, the first paragraph of the Executive Summary could be held to be a statement about the pre-98 position. We could try something like:

"Under Saddam Hussein, Iraq developed chemical and biological weapons, and persistently tried to develop a nuclear bomb. Saddam used chemical weapons, both against Iran and against his own people. Following the Gulf War, Iraq had to admit to all eff-this, and to programmes to acquire weapons of mass destruction, when she was defeated in the Gulf War. The key condition of the ceasefire, allowing him to remain in power, was that he agreed to disarmament the destruction of his weapons of mass destruction under international United Nations inspection. The evidence in this paper shows that he has deliberately acted in breach of international law in order to retain these prohibited capabilities".

The rest of paragraph 2 etc would then flow.

#### SIR DAVID OMAND

19 September 2002