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Iraq Technology Transfer List-Draft Results  
June 6, 2003

Dr. John Shaw DUSD(ITS) At&L  
POC: Ed Timperlake (ITS) 703 693 0011  
Paul Sellers IDA

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## **Iraq Technology Transfer List-(ITTL ), Status report-June 10, 2003**

### **IDA-**

- Contact work underway.
- Methodology Developed, All Lists (UN Goods List, US Military List, the Commerce Control List, and Wassenaar Agreements) are on CD.
- As hard data from the field flows ITS/IDA is assessing violations ( limited date).
- IDA established Siprenet connection with DIA team which makes the Iraq field reports available on a common web site.
- First working draft in process.

### **DIA-**

- Relations good, meetings at both staff and senior levels have been productive.
- Volume of information in DIA unknown but ahs not been significant to date
- DIA information currently limited but expected to flow in quality and quantity.
- Suggest meeting with Head of DIA to bring attention to problem.

### **Information Awareness Office:**

- Working relationship established with Admiral Poindexter and Dr. Popp.
- Their request is for ITS/IAO team with US Army Intelligence and Security Command (INSCOM) for joint tasking.

### **INSCOM:**

- In meeting with Gen Alexandria (CG) he presented INSCOM's unique state of the art capabilities.
- Once equipment located INSCOM/IAO can be very helpful in determining how the contraband arrived in IRAQ, and where else munitions and dual-use equipment went.
- Gen Alexandria, suggested meeting or letter from USD Aldridge to USI Dr. Cambone, to sponsor an effort to support a 4-6 person analytical cell.

### **CENTCOM:**

- Discussion with BG Zahner (G-2 CENTCOM Forward) revealed the collection effort is underway.
- For the "ITTL" to get timely and relevant information Gen Zahner suggested Dr. Shaw and his team work with DIA's MG Keith Dayton.
- General Dayton's staff directed effort to BG Steve Meekin AUS(he is in Qatar)
- Briefing with Gen Meekin's assistants indicated attention should be paid to requirements, hence meeting with head of DIA suggested.

### **SOCOM:**

- Initial meeting indicates that SOCOM is also significantly concerned about illegal dual-use and munitions transfers.

### **DTRA:**

- Dr Younger has been kept fully informed of this effort.

Item: Mirage F1

Country of origin: France (Belgium, Spain) (see below)

Relevant agreement potentially violated: UN Security Resolution 687, April 3, 1991: prohibits sale or supply to Iraq of all arms and related material.

Background information: The Mirage F1 prototype flew for the first time on 23 December 1966 and was followed by three preseries aircraft. A total of 726 Mirage F1 aircraft were built. The last aircraft was completed in 1992. The primary role of the single-seat Mirage F1-

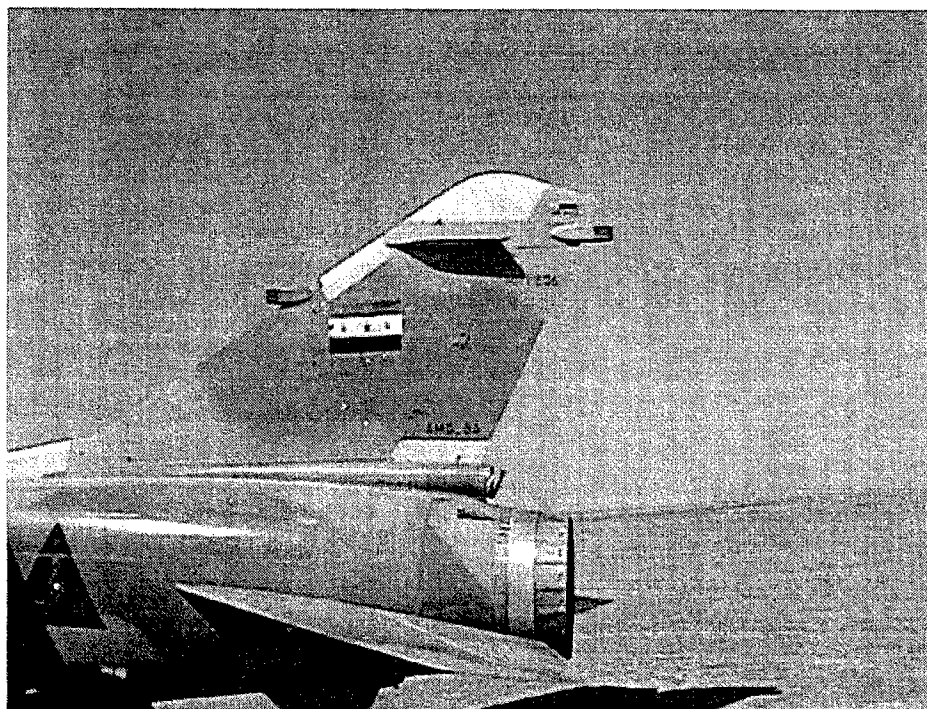


C production version, to which the detailed description applies, is that of all-weather interception at any altitude. It is equally suitable for visual ground attack missions, carrying a variety of external loads beneath the wings and fuselage. By January 1990, a total of 731 Mirage F1s had been ordered and deliveries made to: France (251 including five prototypes), Ecuador (two F1-JE and 16 JA, equivalent to F1-B and E), Greece (40 F1-CG), Iraq (98 F1-EQs and 15 BQs), Jordan (two F1-BJ, 17 CJ - to be upgraded to EJ - and 17 EJ), Kuwait (six F1-BK and 27 CK), Libya (six F1-BD, 16 AD and 16 ED), Morocco (30 F1-CH and 20 EH), Qatar (two F1-DDA and 13 EDA), South Africa (32 F1-AZ and 16 CZ) and Spain (six F1-BE, 45 CE and 22 EE). Production ended in 1990 with the last of a follow-on batch of 15 for Iraq, but these, plus five from an earlier order, were embargoed. Deliveries by January 1991 were 721, reportedly including some (embargoed Iraqi) aircraft to the Kuwait Air Force in exile. Mirage F1-EQ5s and EQ6s of the Iraqi Air Force are equipped to carry Exocet anti-ship missiles and laser-guided weapons such as the AS 30L missile and Matra 400 kg laser-guided bomb. They have Thomson-CSF Agave radar.

The Mirage F1 was produced by Dassault Aviation in co-operation with the Belgian company SABCA, in which Dassault Aviation has a parity interest, and CASA of Spain, which built fuselage sections for all Mirage F1s ordered.

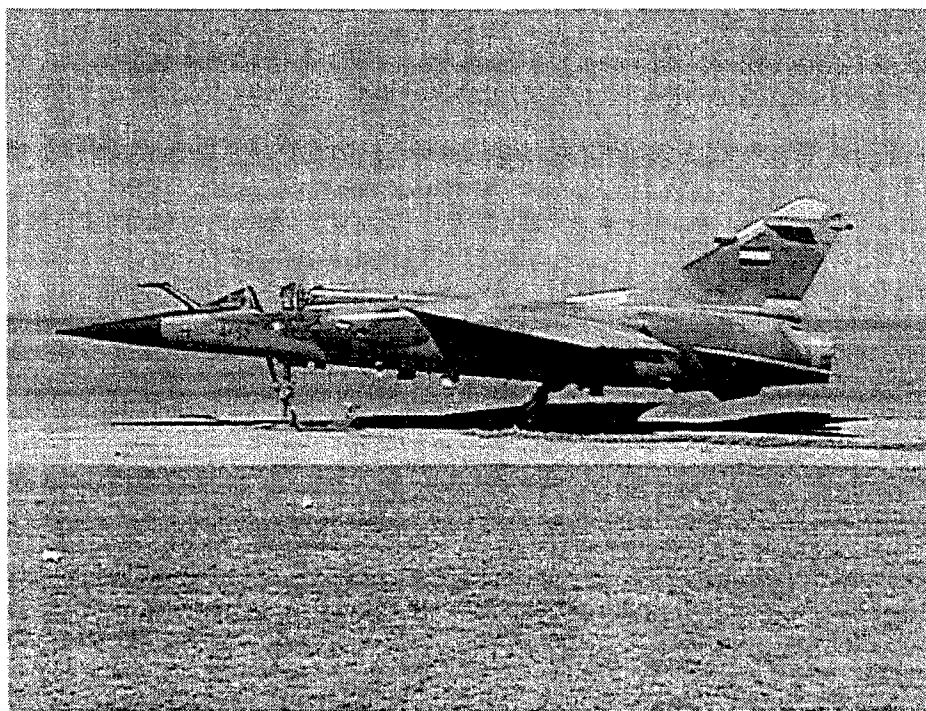
Discussion: according to the NAIC Mirage F1 Weapon System Study, the marking on one of the aircraft, 4652, corresponds to the EQ7-200 variant which were supposedly never delivered due to sanctions. However the tail marking indicates EQ6 (see pictures).

Assessment: Possession of an Mirage F1 that was embargoed would violate UN Security Resolution 687.



Qayyarah West  
11 May 03

Mirage F1 EQ6 4652



Qayyarah West  
11 May 03

Mirage F1 EQ6 4652

Item: PTAB cluster munitions

Country of origin: Russia (Bazalt State Research and Production Enterprise, Moscow); Yugoslavia.

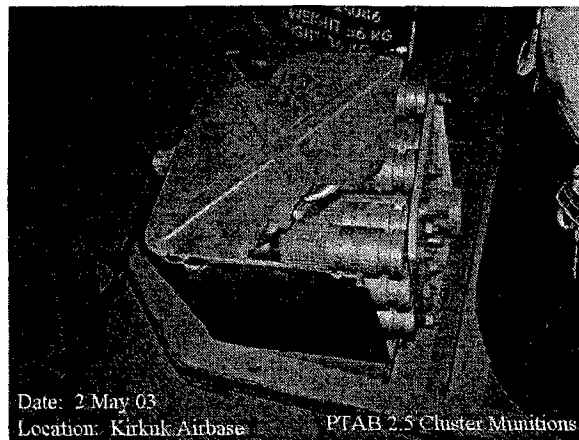
Relevant agreement potentially violated: UN Security Resolution 687, April 3, 1991: prohibits sale or supply to Iraq of all arms and related material.

Background information: The RBK family of cluster bombs is of post-Second World War design and in its earlier days was primarily used for delivering large numbers of anti-personnel fragmentation submunitions.

However, in more recent years they have been adapted to carry various other types of submunitions, such as anti-material, airfield cratering and various types of anti-tank

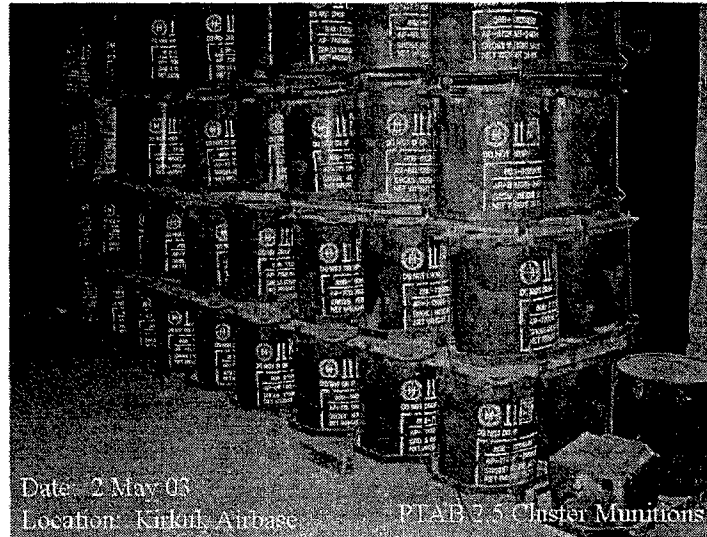
submunitions. RBK-500 PTAB-1M was a further development of the RBK-500 multipurpose cluster bomb (see separate entry), and was designed

to carry 268 anti-tank bomblets designated PTAB-1M, hence the overall designation. It was developed in order to give the Russian Air Force a capability to attack and destroy formations of tanks and armored personnel carriers while on the move, in formation or dispersed over a wide area. The designation letters PTAB stand for *protivo-tankovaya aviatsionnaya bomba* which means 'anti-tank bomb aircraft'. The RBK-500 PTAB-1M is designed to withstand the high *g* forces encountered by combat maneuvers of high-speed attack aircraft, and is fitted with standard Russian spaced suspension lugs. The bomb is believed to be cleared for carriage on MiG-21 'Fishbed', MiG-27 'Flogger', MiG-29 'Fulcrum', Su-17 and Su-22 'Fitter', Su-24 'Fencer', Su-25 'Frogfoot' and Su-27 'Flanker' aircraft of the Russian and allied air forces. It is believed that the RBK-250-275 was originally designed to carry fragmentation bomblets designated AO-2.5. However, later versions carried 150 AO-1 SCh fragmentation bomblets, or 30 PTAB-2.5 anti-armor bomblets.



Discussion: Numerous containers of PTAB cluster munitions were found at Kirkuk Airbase. PTAB cluster bombs were produced for Russia and allied air forces. There are no known exports. At the 1991 Paris Air Show it became known that the Yugoslav Air Force was in possession of several bomblets of various types and at least one cluster bomb and cluster bomb unit (PTAB). Some of the bombs are thought to have been bought direct from the former USSR, and it is believed that others were manufactured under license or even designed by the Federal Directorate of Supply and Procurement (SDPR) in Belgrade, now Serbia.

Assessment: Possession of the PTAB cluster munitions could violate UN Security Resolution 687 depending on the date of transfer. They could have been provided by Russia or Serbia. More detail is needed than what has been provided.

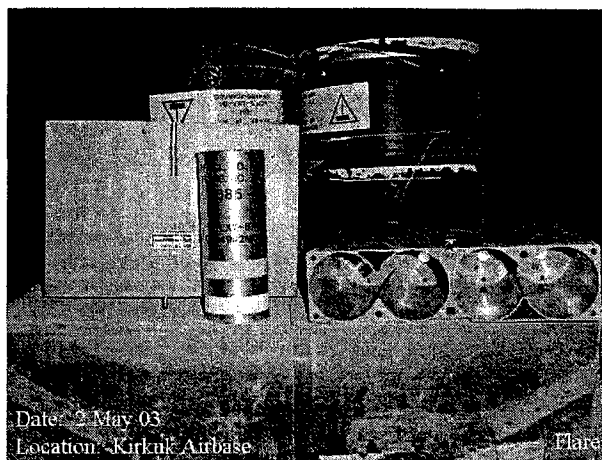


Item: Sycomor countermeasures pod (chaff and flare system)

Country of origin: France (S.A. Matra)

Relevant agreement potentially violated: UN Security Resolution 687, April 3, 1991: prohibits sale or supply to Iraq of all arms and related material.

Background information: Sycomor is a chaff and flare system which has been developed for the Mirage F1 to jam radars, radar seekers and infrared missiles by ejecting clusters of chaff and/or decoy flares. It is packaged in either a 2.95 m long externally mounted pod, or in a 2.5 m conformal pack. Each gondola has three chaff dispensing tubes and seven magazines housing four decoy cartridges per magazine. Each pod has the capacity of two gondolas. Although designed for the Mirage F1, it can be adapted to other types of aircraft. The Sycomor countermeasures dispensing system entered service in 1984.



Discussion: A pod and a number of flares were found. The P/No. of the pod was :0665334P01

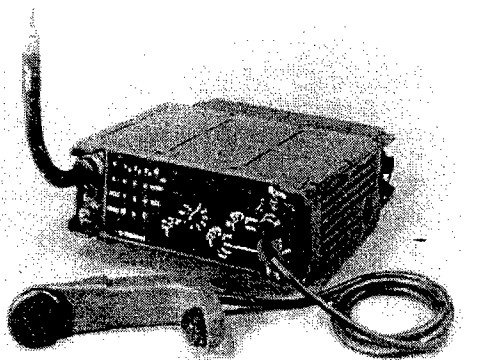
Assessment: Possession of the Sycomor pod and flares could violate UN Security Resolution 687 depending on the date of transfer. Since Iraq had Mirage F1s for some time, it is likely that these flares had already been in the inventory. Further The Corail pod (in service since 1992) had better capability than the Sycomor and was used by the French Mirage F1s in Bosnia.

Item: TRC-920 VHF/FM frequency hopping radio

Country of origin:

Relevant agreement potentially violated: UN Security Resolution 687, April 3, 1991: prohibits sale or supply to Iraq of all arms and related material.

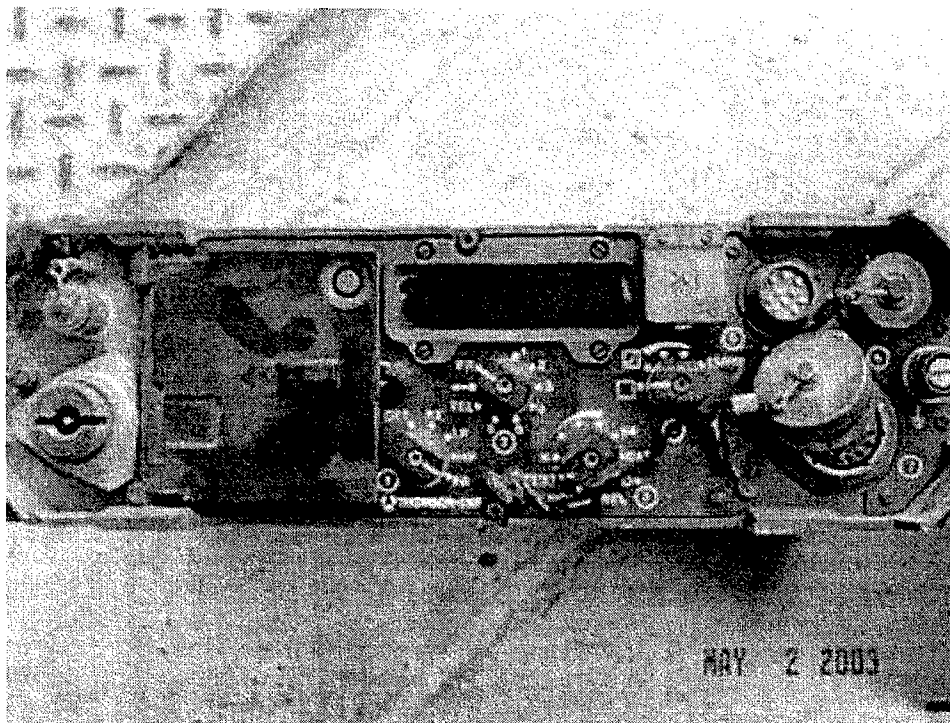
Background information: (FOUO) the TRC920 is a VHF/FM manpack radio transceiver that can frequency hop at a rate of 300 hops/s. It can operate for up to 14 hours with its batteries. The TRC920 belongs to the 900 family of frequency-hopping combat-net radios which also includes the TRC930 and TRC950. It was first produced in 1988.



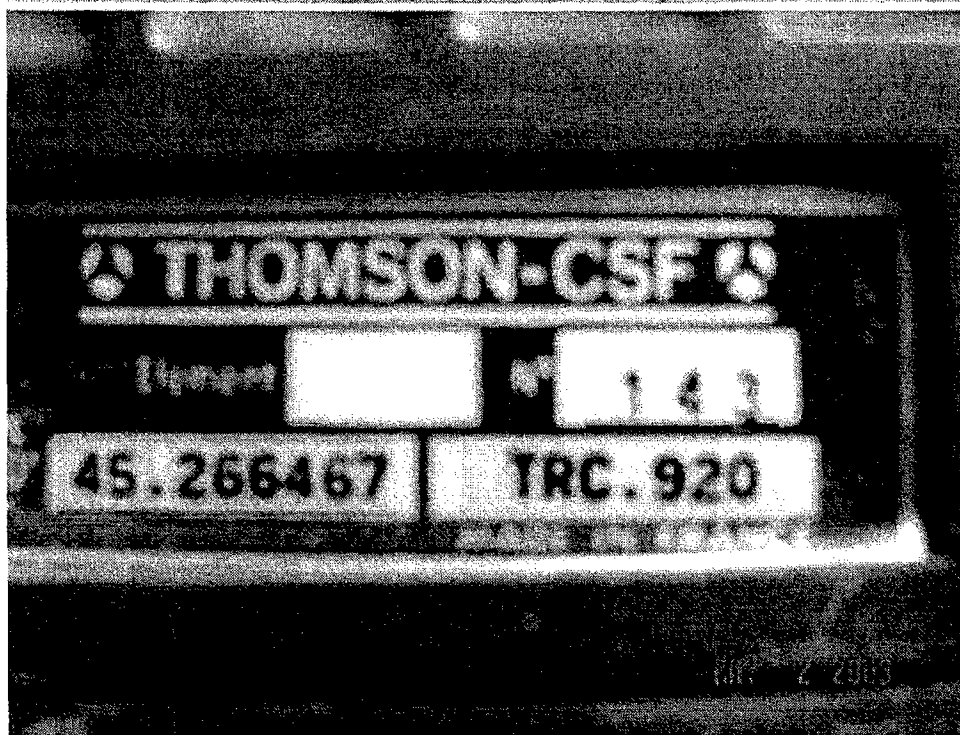
Discussion: The radios were TRC-920 models with these data on the plates: 45.266467, No 142, 143, and 141 (see attached picture of 143). Frequency hopping radios give Iraqi forces some level of security of communication. Since the TRC-920 was first produced in 1988, it will have to be determined if these radios were produced and/or transferred after April 1991 to indicate a violation of UN sanctions.

Assessment: Possession of the TRC-920 could violate UN Security Resolution 687 depending on the date of production/transfer.





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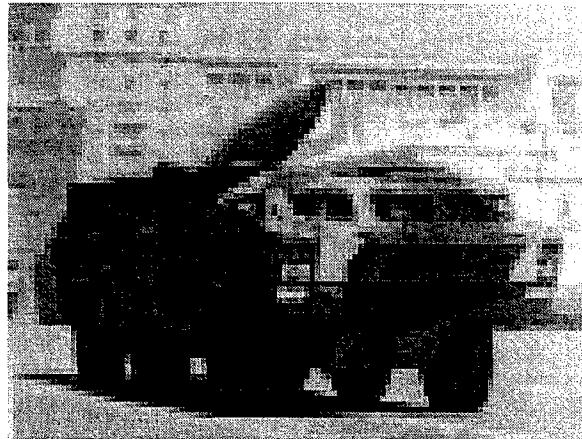
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Item: SS-21 Missile system

Country of origin: Russia

Relevant agreement potentially violated: UN Security Resolution 687, April 3, 1991: prohibits sale or supply to Iraq of all arms and related material.

Background information: The SS-21 is a Short-range, road-mobile, solid-propellant, single-warhead ballistic missile. The SS-21 'Scarab' was developed from 1968 to 1974 as the replacement for the short-range Free Rocket Over Ground ('FROG') missile, and was introduced into service in 1975. A longer-range missile, SS-21 'Scarab B', known in Russia as Tochka-U, was developed between 1984 and 1988, and entered service in 1989. The missile is



carried on a Titan Central Design Bureau six-wheeled modified ZIL-5937 or BAZ 5921 transporter-erector-launcher vehicle (9P129). The SS-21 'Scarab A' entered service in 1975, and has been exported to Belarus, Czech Republic, Germany, Hungary, Kazakhstan, Poland, Slovakia, Syria, Ukraine and Yemen.

Discussion: An SS-21 TEL was found with no missiles. This would be consistent with the following information from Jane's: "Iraq had an SS-21 'Scarab' TEL vehicle, probably obtained from Yemen in 1995, which might indicate that both missile and TEL technologies were being used by Iraq for its Sakr or Ababil project. The test and production facilities were reported to have been bombed in December 1998, but a report in August 2000 indicated that a new facility had been found at Al Mamoun some 40 km southwest of Baghdad. Two missiles on TELs were paraded in December 2001, and were reported to have a range of 150 km with a payload of 300 kg. Further designs were reported, for a Sakr 200 with a range of 200 km, and for a third version with a range of 600 km."

Assessment: if the SS-21 TEL was obtained from Yemen in 1995, it would be a violation of UN sanctions.



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Item: Suicide vests

Country of origin: unknown

Relevant agreement potentially violated: UN Security Council Goods Review List.

Background information: While suicide bombers have long been a part of the Arab-Israeli situation, there has been no press reporting about vests worn by suicide bombers.

Discussion: In April, CBS Evening news reported that 50 suicide vests were found in a school in Baghdad. In an interview with Wolf Blitzer on April 13, 2003, General Tommy Franks said that 300 vests were found that had explosives, timing devices and steel balls. He went on to say that he did not know their origin but “we’ll find out”. A New York Times report on April 23, 2003 stated that more than 800 vests had been found.

Assessment: Possession of the suicide vests could violate UN Security Resolutions, specifically the Goods Review List. It appears that the items in the vest are not specifically military but could be dual-use items depending on the type of explosive (which was reported as unknown).

