

The following is mirrored from its sources at:

PART I: <http://www.laweekly.com/ink/03/18/features-crogran1.php>

PART II: <http://www.laweekly.com/ink/03/18/features-crogran2.php>

PART III: <http://www.laweekly.com/ink/03/23/news-crogran.php>

COMPANY LISTINGS A-M: <http://www.laweekly.com/ink/03/23/news-crogran2.php>

COMPANY LISTINGS N-Z: <http://www.laweekly.com/ink/03/23/news-crogran3.php>

US GOVERNMENT AGENCY LISTINGS: <http://www.laweekly.com/ink/03/23/news-crogran4.php>

Made in the USA
A guide to Iraq's weapons of mass destruction
by Jim Crogran
LA Weekly
March 21-27, & April 25 - May 1, 2003

- Part I - A guide to Iraq's weapons of mass destruction
- Part II - more on the connection between the United States, American corporations and Iraq's weapons programs
- Part III - The Dishonor Roll: America's corporate merchants of death in Iraq
 - Index of American Companies (& int'l co.'s w/US affiliates)
 - Index of U.S. Government Agencies
 - US Company Listings A-M
 - US Company Listings N-Z
 - US Government Agency Listings

As U.S. and British fighter jets and bombers knife through Iraqi airspace to pound targets in and around Baghdad, attacking pilots will challenge an air-defense system updated with fiber-optic equipment installed by a Chinese corporation and supported by American high-end technology.

At every turn of the war against Iraq, U.S. and British forces will face weapons systems largely developed and supplied to Iraq by American, European, Russian and Chinese companies.

Airmen will seek to evade anti-aircraft missiles, designed by Russian, German, Chinese, Egyptian and Argentine engineers, and controlled by American, British and French supercomputers and navigational systems.

Ground forces will gird themselves against the risk of germs and viruses supplied by American companies, or chemical weapons manufactured with German, Swiss, American and British technology and supplies. So-called dirty bombs, which use conventional explosives to spread deadly radiation, would be the direct result of French- or Japanese-based engineering.

Call it globalization at its worst.

Most of the technology was sold to Iraq in the decade before the 1991 Gulf War, but not all.

A case in point is Huawei Technologies. Between 2000 and 2002, this leading Chinese communications company upgraded Saddam's air-defense system. Huawei's actions, which violated the international embargo against military sales to Iraq, used good old American know-how. AT&T helped "optimize" this Chinese company's products, and IBM supplied Huawei with switches, chips and processing technology. Texas Industries helped set up a lab in 1997 to train Huawei engineers and develop signal-processing systems, according to the Wisconsin Project on Nuclear Arms Control, a Washington D.C.-based nonprofit foundation that monitors the proliferation of nuclear, chemical and biological weapons and missile technology. Records indicate that Huawei built another joint lab with Motorola in 1997.

That same year the Chinese company received U.S. Department of Commerce approval to buy supercomputers from Digital Equipment Corporation, IBM, Hewlett-Packard and Sun Microsystems. Huawei also purchased large amounts of telecommunications equipment from Qualcomm, again approved by the Commerce Department.

Gary Pitts, a Houston attorney, has sued American and European companies for supplying Iraq's program to build weapons of mass destruction. The United Nations and the United States have so far refused to disclose publicly all the companies named by Iraq in U.N. documents as suppliers for its weapons programs. Pitts then sent his consultant, Scott Ritter, a former U.N. weapons inspector, to Baghdad. Ritter returned with a copy of Iraq's 1997 weapons declaration to the U.N., which Pitts is now incorporating into his lawsuit.

Iraq's 1997 declaration was supplanted by its December 2002 declaration. Again, the suppliers' names were not revealed, but the information was leaked to Andreas Zumach, a Swiss-based reporter who published company names in the Berlin newspaper *Die Tageszeitung*. The *Weekly* was unable to verify the list, but Zumach, who spoke with the *Weekly*, identified 24 American-based corporations and 50 American subsidiaries of foreign corporations. The names include several California-based corporations: Rockwell, Hewlett-Packard, Bechtel, Axel Electronics Inc. and Spectra Physics. None of these companies other than Bechtel returned calls for comment to the *Weekly*. (Bechtel confirmed that it helped design a petrochemical plant outside Baghdad, but a spokesperson added that the company's actions were legal at the time.) Zumach's list also identified three Chinese companies, including Huawei, and eight from France, 17 from Britain, six from Russia, five from Japan, three from Holland, seven from Belgium, three from Spain and two from Sweden.

In his speech before the United Nations, U.S. Secretary of State Colin Powell stated that "To support its deadly biological and chemical weapons program, Iraq procures needed items from around the world, using an extensive clandestine network." But Powell has been notably silent on issues of U.S. culpability, corporate profiteering or violations of international chemical, nuclear and biological treaties. Powell, for instance, neglected to mention that the U.S. Centers for Disease Control and Prevention in Atlanta sent Iraq three shipments of West Nile virus for medical research in 1985.

Powell also failed to acknowledge that Iraq obtained some of its initial anthrax bacilli from American Type Culture Collection (ATCC), a Maryland/Virginia-based nonprofit bio-resource center that supplies viruses and germs to governments, companies and academic institutions worldwide. Between 1985 and 1989, ATCC sent Iraq deadly shipments that included a variety of anthrax bacteria and germs that cause meningitis, influenza, botulism, lung failure and tetanus, according to media reports and U.N. records. ATCC did not respond to a request for an interview.

Thiodiglycol, a substance needed to manufacture deadly mustard gas, made its way to Iraq via Alcolac International, Inc., a Maryland company, since dissolved and reformed as Alcolac Inc., and Phillips, once a subsidiary of Phillips Petroleum and now part of ConocoPhillips, an American oil and energy company.

The *Weekly* contacted the Texas law firms representing Alcolac Inc. and ConocoPhillips for comment, but only Ronald Welsh, Alcolac's lawyer responded. "I have no personal knowledge that Alcolac supplied Iraq" with a component of mustard gas, said Welsh. Alcolac's attorney also claimed he didn't know that Gary Pitts had obtained Iraq's 1997 Weapons Declaration, but said he intends to challenge its authenticity in court.

Alcolac was one of a handful of corporations prosecuted by the U.S. Justice Department for illegal exports. Although Alcolac allegedly supplied its mustard-gas ingredient to Iraq and Iran, the Justice Department indicted the company in 1988 only for its illegal exports to Iran, via a German company, Chemco. A Chemco executive, who arranged the sales, was convicted of violating export laws. Alcolac's chemicals allegedly made their way to Iraq through Nu Kraft Mercantile Corp., via Jordan. In 1989, Alcolac pleaded guilty to one count of violating U.S. export laws.

Hussein's troops used mustard gas against the Iranians in their war and also against Kurdish civilians at Halabjah in 1988. And during the first Gulf War, hundred of thousands of American soldiers might have been exposed to hazardous levels of poison gas released when coalition jets bombed Iraqi targets. At the time, Czech chemical-detection equipment, the most sophisticated in the world, registered mustard gas and sarin nerve-gas exposure. Gulf War vets were found to be two to three times more likely to have children born with birth defects, according to a study published by the *Annals of Epidemiology*. Likewise, vets may have higher-than-average rates of cancers, afflicting the brain, nervous and reproductive systems, pancreas, kidneys and lungs.

Of 567,000 American troops who saw duty in the Gulf during the 1991 war, 293,561 -- or nearly 52 percent -- have now filed medical claims with the Department of Veterans Affairs, said Steven Robinson, executive director of the National Gulf War Resource Center and a Gulf War vet. The VA has granted compensation to 163,000 Gulf War vets, at a cost of \$1.8 billion per year. Robinson also says that at least 11,074 Gulf vets have died since the war.

"We want those companies, especially the American firms who may have broken the export laws, to be criminally prosecuted," said Robinson.

Made in the USA - Part II

More on the connection between the United States, American corporations and Iraq's weapons programs

Iraq would never have developed its chemical-, biological- and nuclear-weapons program -- or even its conventional missiles -- without technology and material support supplied by a phalanx of American and international corporations. It also helped mightily that officials in the first Bush presidency -- many of whom now work for George W. Bush -- were willing to look the other way or directly assist Saddam Hussein's regime.

Between 1985 and 1990, the U.S. government approved 771 licenses for exports of biological agents, high-tech equipment and military items to Iraq, reported Representative Sam Gejdenson (D-Connecticut) in 1991. Those exports were valued at \$1.5 billion, said Gejdenson, who was the chairman of the House Subcommittee of the Foreign Affairs Committee at the time.

"The United States spent virtually an entire decade making sure that Saddam Hussein had almost whatever he wanted . . . We continued to approve this equipment until just weeks before Saddam Hussein invaded Kuwait," declared, according to a Congressional transcript.

Gejdenson also told his subcommittee that the State Department refused to impose controls on the export of biological toxins to Iraq until 1989, even though it knew Hussein used chemical weapons against Iranian troops during the Iran-Iraq war as well as Kurdish civilians.

And, he added, the administration of the elder George Bush had lobbied, right up to "July 27, 1990 -- six days before Saddam Hussein invaded Kuwait," against a proposed House amendment that would have restricted agricultural credits to Iraq.

In a 1991 speech on the House floor, Texas Democratic Congressman Henry Gonzalez denounced the billions in financial support given to Hussein with assistance from both the Reagan and Bush administrations. Banca Nazionale del Lavoro (BNL), an Italian, multinational banking concern with American operations based in New York, delivered more than \$4 billion in loans to Iraq, during the 1980s.

Those loans, unreported to U.S. banking officials, were funneled through BNL's Atlanta branch. The subsequent scandal eventually resulted in the conviction of several BNL employees for fraud.

And yet Gonzalez was able to cite a Federal Reserve document showing that the secretary of state for the first President Bush actually discussed these criminally suspect BNL loans with Saddam Hussein. Investigators also found BNL-related telexes between April Glaspie, the U.S. ambassador to Iraq, and the State Department in Washington.

Gonzalez also reported that U.S. officials under Reagan and Bush routinely ignored evidence that Iraq was using its weapons of mass destruction. He cited congressional testimony by Paul Freedenberg, the chief export-licensing official at the Department of Commerce during

parts of both the Reagan and Bush administrations, to underscore that point.

"In the summer of 1988, a number of licenses were pending with regard to technology transfers to Iraq," testified Freedenberg. "I asked for official guidance with regard to what the licensing policy would be toward Iraq, since by then there was credible evidence of the use of poison gas by the Iraqis against their own people and also against the Iranians."

Freedenberg told Congress that he suggested the "imposition of foreign controls" be used to justify the denial of these export licenses. But the National Security Council told him to treat these exports as "normal trade."

More would be known about corporate and governmental malfeasance except that this information is being kept under wraps. This secrecy even applies to the weapons declarations issued by Iran in 1997 and in December of 2002. Attorney Gary Pitts, who is suing corporations that allegedly helped to arm Iraq, found that there were only three places to get the information: the United Nations, the U.S. government and Iraq.

"The U.N. refused to disclose" either the 1997 or 2002 lists of Iraqi suppliers, said Pitts. And his request to U.S. officials has been stuck in bureaucratic limbo. Pitts finally made a direct appeal to Iraq: "I told them that they should release the list and let the companies share the heat."

To his surprise, Iraq agreed on the condition that Iraqi officials would hand over this information at a press conference. But the Iraqis postponed the meeting indefinitely in the face of increasing tensions. It was then that Pitts sent Scott Ritter, a former U.N. weapons inspector who was serving as a legal consultant, to Baghdad. Because Ritter returned with reams of documentation, Pitts was able to amend and update his lawsuit. Currently, his suit names 68 corporations and individuals, the majority of which are European.

Pitts also has coordinated with British and German law firms to sue some of the European companies named as defendants in his class-action suit, which he filed in the Texas state court system. Through the lawsuit or through an act of Congress, he hopes to tap into the more than \$1 billion in frozen Iraqi assets in the U.S. on behalf of his clients, who are some 3,500 sick Gulf War veterans. Pitts originally filed his lawsuit in 1994.

Because the U.N. has guarded the names of Iraq's weapons suppliers, several countries, including Syria, have accused the U.S. of spearheading a cover-up to protect Iraq's corporate suppliers.

The *Weekly* contacted the Syrian and Iraqi missions for comment. The Syrian mission declined to elaborate. But an assistant to the Hussein government's U.N. ambassador, who identified himself as Osama, declined to release the names of the suppliers. "Those names are confidential," he said. "And we don't even have a copy of the declaration here in New York, so I couldn't give them to you anyway."

A representative of the U.N.'s weapons-inspection team, who spoke on condition of anonymity, denied the U.S. had pressured anyone. "The decision to 'sanitize' the list of names was made by the permanent members in consultation with us. We felt it was necessary to protect their names, so UNMOVIC [the U.N. inspection agency] could go back

and ask the companies follow-up questions. It's like journalists protecting their sources," the source added.

Also speaking on a not-for-attribution basis, a spokesperson for the U.S. United Nations delegation denied the U.S. had pressured anyone to withhold suppliers' names: "We wanted them released," the spokesperson said. "It was the Europeans who demanded they be kept secret."

The corporate entities were subsequently listed in a German newspaper, but the disclosure got little play in the United States, despite the presence of an impressive list of American corporate players.

It turns out that the Iraqi declaration also identified three American nuclear-weapons labs as assisting with Iraq's nuclear-weapons program: Los Alamos, Sandia National Laboratories, and Lawrence Livermore. A Los Alamos representative refused comment. And Sandia's spokesperson did not return calls. But a representative from Lawrence Livermore told the *Weekly* the reference was to a public conference that several Iraqi scientists attended. "There was no classified material discussed. It was only about conventional explosives and detonations," the spokesperson said. "These were public, scientific papers being discussed. And I think the conference was sometime during the late 1970s."

Former congressional investigator Jeff Hodges remembers it differently. "First, the conference wasn't held in the late 1970s," said Hodges. "It was September 1989. That's less than 14 months before the Gulf War started," he said.

Hodges also pointed out it was the elder Bush's State Department that arranged visas for three participating Iraqi nuclear scientists. "In addition to the information they received from the public papers, the scientists also profited from valuable contacts they made at the conference," he added.

Six months after the conference, American and British customs officers at London's Heathrow Airport arrested operatives working for Iraq's nuclear-weapons research lab.

Of course, history could have taken a completely different turn in 1990. A former U.S. intelligence official, speaking on condition of anonymity, tells the *Weekly* that in July of 1990 his associate, an intelligence operative, was reviewing developments in Iraq with President Bush, Colin Powell (then chair of the Joint Chiefs of Staff), Dick Cheney (then the Secretary of Defense) and Secretary of State James Baker on the looming crisis in the Gulf.

"My friend was the individual used by our government to hand-carry secret intelligence information on Iran's military to Baghdad," recounted the source. "He told Bush and the others that Iraq was moving troops towards the Kuwaiti border. He also told the president he could stop them dead in their tracks by making a public announcement that any attack on Kuwait would be viewed as an attack on the U.S." But the source said that the advice was rejected.

Bush et al. "decided they didn't want to align the U.S. that closely with Kuwait," the former intelligence official said. "But I guess that plan didn't work out too well, did it?"

Companies Being Sued for Ties with Iraq

The following companies are named in the Gulf vets class-action suit, which claims the companies aided Iraq's weapons program. None of these companies has admitted any wrongdoing; some have yet to be served with the lawsuit alleging wrongdoing:

- Preussag, a German company, allegedly built a chemical-weapons facility.
- Schott Glaswerke, a German company, allegedly provided specialized equipment for chemical plants.
- Klockner, a German company, allegedly sold Iraq spare machine parts for its chemical-weapons facilities.
- Sigma Aldrich Corp., a German company, allegedly sold biological-weapons equipment.
- Chemap A.G., a Swiss company, allegedly sold specialized equipment for Iraq's bioweapons program.
- American Type Culture Collection, a U.S. company, supplied biological agents and pathogens to Iraq.
- Phillips, now part of ConocoPhillips, an American oil and energy company, allegedly sold chemicals used in the production of mustard gas.
- Alcolac International, a U.S. company, allegedly sold chemicals used in the production of mustard gas.
- Alfa Laval, a Swedish company, allegedly sold specialized equipment for Iraq's bioweapons program.
- Karl Kolb, a German company, allegedly built a chemical-agent factory.
- WET, a German company, allegedly sold specialized equipment for Iraq's bioweapons program.
- Herberger, a German company, allegedly built bio-weapons facilities.

Made in the USA - Part III

The Dishonor Roll: America's corporate merchants of death in Iraq

April 25 - May 1, 2003

Saddam Hussein's regime was crushed by the combined military might of American and British forces in a lightning-quick, three-week war. But there's still more work to be done, U.S. Secretary of Defense Donald Rumsfeld told reporters at the Pentagon this month.

"We still need to find and secure Iraq's weapons-of-mass-destruction facilities," said Rumsfeld. "We still must find out everything we can about how the Iraqi regime acquired its capabilities, and the proliferation that took place by countries in the industrialized world."

A glance at his datebook would provide some of the answers. In 1983, Rumsfeld, then a private citizen, traveled to Baghdad to meet with the Iraqi dictator. Rumsfeld delivered President Ronald Reagan's personal message of support to Hussein, who was already three years into his eventual eight-year war with Iran. The American envoy also discussed a proposed joint-venture oil pipeline with the Iraqi leader. That project, also championed by the San Francisco-based Bechtel Group, never materialized, but Rumsfeld's mission underscored the reality that for more than 30 years the economic interests of American industry were firmly embedded into the geopolitical goals of U.S. policymakers.

Throughout the 1980s, the U.S. Commerce Department approved at least \$1.5 billion in exports with possible military applications from U.S. companies to Iraq, and the Agriculture Department administered a U.S.-government-guaranteed loan program that provided billions to Iraq. Thanks largely to the first George Bush, American taxpayers unwittingly co-signed for much of the loan money, and the government had to make good on these loans when Iraq

later defaulted. Almost all of the transactions were legal under U.S. and international law at the time, even when the transactions either had direct military or dual-use (civilian and military) applications. Over and over again, the deals were encouraged and even abetted by the U.S. government, even after American officials had proof that Iraq was using chemical weapons to kill Iranian troops and subdue Kurdish uprisings. In fact, the Reagan administration and the first Bush administration even provided Hussein's regime with military intelligence during his bloody eight-year war with Iran.

American officials tolerated Hussein's despotism because they viewed his regime as a secular bulwark against the Islamic fundamentalist revolution spawned by the Iranian revolution. That is, until Iraq invaded oil-rich Kuwait in 1990. Most, though not all, of Iraq's commerce with American companies ended after the first Gulf War in 1991.

Now the business cycle is starting all over again. Last week, the Bechtel corporation received a U.S. Agency for International Development contract to rebuild Iraq's infrastructure. The contract, initially worth \$34.6 million, could eventually total nearly \$700 million over the next 18 months. Perhaps Bechtel's institutional knowledge was a plus, given its status as a major player in Hussein's Iraq -- during the time when doing business with Hussein was endorsed by U.S. policy. At the very least, Bechtel's ties to the old regime are not being held against it.

HOW TO NAVIGATE THE LIST:

Click on a company name or U.S. government agency from the list below to go directly to a description of their acknowledged or documented involvement with Iraq. Some of these businesses are no longer operating. A number of these companies did not respond to the *Weekly's* calls for comment. All who did denied wrongdoing, even when they confirmed their exports to Iraq. Some companies have since changed hands, and representatives of the new businesses said they had no information on exports by the old firms. Nearly all of the documentation for this list comes from official sources, investigations and multiple interviews with authoritative sources. Some of the source material is presented at the end of the entire list.

Index of American Companies (and international companies with U.S. affiliates):

- AT&T
- AL HADDAD ENTERPRISES, INC.
- ALCOLAC INTERNATIONAL
- AMERICAN TYPE CULTURE COLLECTION
- ASSOCIATED INSTRUMENTS DISTRIBUTORS, INC.
- AXEL ELECTRONICS
- BANCA NAZIONALE DEL LAVORO
- BECHTEL GROUP
- BREEZEVALE, INC.
- CANBERRA INDUSTRIES
- CARL SCHENCK AG
- CARL ZEISS
- CATERPILLAR, INC.

- COMTEC INTERNATIONAL, INC.
- CONSARC
- COPELAND INTERNATIONAL, INC.
- DATA GENERAL CORP
- DEKTOR COUNTERINTELLIGENCE AND SECURITY, INC.
- DOW CHEMICAL
- DRESSER CONSTRUCTION AND EQUIPMENT
- DUPONT
- E G & G PRINCETON APPLIED RESEARCH
- EASTMAN KODAK CO.
- ELECTRONICS ASSOCIATES, INC.
- ENTRADE INTERNATIONAL, LTD.
- EVAPCO
- FINNIGAN MAT US
- FOXBORO COMPANY
- GERBER SYSTEMS TECHNOLOGY
- GORMAN-RUPP
- HARDINGE BROTHERS
- HEWLETT-PACKARD
- HIPOTRONICS
- HONEYWELL
- HUGHES HELICOPTER
- IBM
- INTERNATIONAL IMAGING SYSTEMS
- INTERNATIONAL SIGNAL AND CONTROL
- IONICS
- KENNAMETAL, INC.
- LEYBOLD VACUUM SYSTEMS
- LINCOLN ELECTRIC CO.
- LITTON INDUSTRIES
- LUMMUS CREST, INC.
- MBB HELICOPTER CORP.
- MACK TRUCKS, INC.
- MAHO AG
- MATRIX CHURCHILL CORP.
- McNEIL AKRON, INC.
- MEMPHIS INTERNATIONAL, INC.
- MILLER ELECTRIC
- MOUSE MASTER
- NCR CORPORATION
- NRM CORP.
- NORWALK CO.
- NU KRAFT MERCANTILE CORP.
- PERKIN-ELMER CORP.
- PHILLIPS EXPORT
- POSI SEAL, INC.
- PRESRAY CORP.
- PURE AIRE

- REDLAKE IMAGING CORP.
- REXON TECHNOLOGY CORP.
- ROCKWELL INTERNATIONAL CORP.
- ROTEC INDUSTRIES, INC.
- SACKMAN ASSOCIATES
- SCIENTIFIC ATLANTA
- SCIENTIFIC DESIGN CO., INC.
- SEMETEX
- SERVAAS, INC.
- SIEMENS CORP.
- SIP CORP.
- SPECTRAL DATA CORP.
- SPECTRA PHYSICS
- SPERRY CORP.
- SULLAIRE CORP.
- SWISSCO MANAGEMENT GROUP, INC.
- TECHNICAL COMMUNICATIONS CORP.
- TEKTRONIX
- TELEDYNE WAH CHANG
- THERMO JARRELL ASH CORP.
- TI COATING
- TRADING AND INVESTMENT CORP.
- UNION CARBIDE
- UNISYS CORP.
- VEECO INSTRUMENTS, INC.
- WILD MAGNAVOX SATELLITE SURVEY
- WILTRON
- XYZ OPTIONS, INC.
- YORK INTERNATIONAL CORP.
- ZETA LABORATORIES

Index of U.S. Government Agencies:

- CENTERS FOR DISEASE CONTROL AND PREVENTION
- CENTRAL INTELLIGENCE AGENCY
- DEPARTMENT OF AGRICULTURE
- DEPARTMENT OF COMMERCE
- DEPARTMENT OF DEFENSE
- DEPARTMENT OF STATE
- NATIONAL SECURITY COUNCIL
- U.S. NUCLEAR WEAPONS LABORATORIES

Foreign Companies:

(Number of foreign firms by country -- note: Some of these firms receive substantial financial support from their governments):

- AUSTRIA: 3
- BELGIUM: 7

- CHINA: 3
- EGYPT: 1
- FRANCE: 9
- GERMANY: 18
- GREAT BRITAIN: 24
- INDIA: 1
- JAPAN: 5
- LUXEMBOURG: 1
- NETHERLANDS: 3
- PORTUGAL: 1
- SINGAPORE: 1 (Note: This company, KIM AL-KHALEEL, also has links to Dubai.)
- SPAIN: 3
- SWEDEN: 2
- SWITZERLAND: 7
- USSR/RUSSIA: 6

Partial Source List:

- 1992 hearing report and transcripts from the Senate Committee on Banking, Housing and Urban Affairs: United States Export Policy Toward Iraq Prior to Iraq's Invasion of Kuwait.
- Banca Nazionale del Lavoro records of letters of credit and loans issued to Iraq and its corporate exporters.
- Reports of United Nations weapons inspectors (UNSCOM) provided to the U.S. Senate Committee on Banking, Housing and Urban Affairs.
- Information from databases compiled by the Wisconsin Project on Nuclear Arms Control, a Washington D.C.-based nonprofit foundation that monitors the proliferation of nuclear, chemical and biological weapons and missile technology.
- News articles and op-eds written by Gary Milhollin, director of the Wisconsin Project.
- Information from Iraq's 1997 Full, Final and Complete Weapons Declaration to the U.N.-UNSCOM, provided by Gary Pitts, a Texas-based attorney suing a number of American and international companies who allegedly supplied Iraq with technology, materials and equipment for its chemical and biological weapons program. Pitts is representing approximately 3,500 Gulf War veterans allegedly suffering from Gulf War syndrome.
- Research material and government documents compiled by Washington, D.C.-based National Security Archives, a nonprofit research group.
- 1995 letter from Dr. David Satcher, then the director of the Centers for Disease Control and Prevention to U.S. Senator Donald Riegle (D-Michigan), chair of the Senate Committee on Banking, Housing and Urban Affairs. Letter detailed shipments of "viruses, retroviruses, bacteria and fungi" to Iraq by the CDC.

- 1994 United States General Accounting Office report to the Chairman, Committee on Foreign Affairs, House of Representatives -- Iraq: U.S. Military Items Exported or Transferred to Iraq in the 1980s.
- Information compiled by the Washington D.C.-based Institute for Science and International Security, a nonprofit, nonpartisan, public education and policy group.
- Information from *Germs: Biological Weapons and America's Secret War* (2001), by Judith Miller, Stephen Engleberg and William Broad.
- Congressional testimony of Kenneth Timmerman, author of *The Death Lobby: How the West Armed Saddam* (1991).
- Information from *The Death Lobby: How the West Armed Saddam* (1991), by Kenneth Timmerman.
- Congressional statements by Representative Sam Gejdenson (D-Connecticut), Chair of the House Subcommittee of the Foreign Affairs Committee, 1991.
- Congressional statements by Representative Henry Gonzalez (D-Texas), 1991, 1992.
- Interviews with Gary Pitts.
- Interviews with Andreas Zumach, a Swiss-based reporter for the Berlin newspaper *Die Tageszeitung*. Zumach was leaked portions of the 2002 Full, Final and Complete Weapons Declaration (UNMOVIC). Zumach published the list of weapons suppliers in a December 2002 series of articles.
- Interviews with Jeff Hodges, a former investigator for the House of Representatives Energy and Commerce Subcommittee on Oversight and Investigations, chaired in 1991 by Representative John Dingell (D-Michigan).
- Interview with Jim Tuite, a former investigator for the U.S. Senate Committee on Banking, Housing and Urban Affairs, chaired by U.S. Senator Donald Riegle (D-Michigan).
- Interviews with government-based and other sources, who requested anonymity.
- Web sites and corporate filings for listed companies.
- Various other U.S. congressional hearing reports; congressional testimony; government reports; Department of Commerce records; Department of Agriculture records.
- Various state-records databases, including information from various Secretary of State offices and Departments of Corporations.

Made In the USA, Part III: US Company Listings A-M

by Jim Crogan

April 25 - May 1, 2003

AT&T

(New York City, New York)

2000 -- Contracted with Huawei Technologies Co. Ltd. to "optimize" Huawei's products. Between 2000 and 2001, Huawei outfitted Iraq's air-defense system with fiber-optic equipment, in violation of a U.N. trade embargo.

AL HADDAD ENTERPRISES, INC.

(Formerly based in Nashville, Tennessee -- defunct)

1984 to 1985 -- Company sold 60 tons of DMMP, a material used to make sarin gas, to Iraq. Also provided chemical-production equipment to Iraq. In 1984, customs officials at Kennedy International Airport seized another Al Haddad shipment of 1,100 pounds of potassium fluoride, a chemical used in nerve-gas production. Al Haddad was not charged in this attempted transfer of chemicals, which were destined for Iraq's Ministry of Pesticides. This firm also received letters of credit from BNL (an Italian bank) totaling \$134,988 to sell knives and rubber blankets to Technical Corp. for Special Projects, an Iraqi front company. (Note: See Banca Nazionale del Lavoro entry for information about BNL's Iraqi loans and letters of credit.)

The firm was owned by Sahib Abd al-Amir al-Haddad, an Iraqi-born, naturalized American citizen. According to corporate records from Tennessee's Department of State, Al Haddad operated a number of registered firms, which are all inactive, dissolved or merged out. These firms included Al Haddad Enterprises, Inc.; A. Saleh & S. Al-Haddad, Inc.; and Al-Haddad Bros. Enterprises, Inc. Recent stories in *The New York Times* and *The Tennessean* reported that al-Haddad was arrested in Bulgaria in November 2002 while trying to arrange an arms sale to Iraq. At last report, Al-Haddad, 59, was awaiting extradition to Germany, where he is charged with conspiring in the late 1990s to purchase equipment for the manufacture of a giant Iraqi cannon.

ALCOLAC INTERNATIONAL, INC

(Formerly located in Baltimore, Maryland. Company was restructured as Alcolac, Inc., and it's currently listed as an active Georgia corporation. Company's assets now owned by French-based firm Rhodia, Inc., with U.S. operations based in Cranberry, New Jersey.)

1988 -- Allegedly sold more than 300 tons of thiodiglycol (precursor material used to make mustard gas) via Nu Kraft Mercantile Corporation, which, according to congressional testimony and media reports, shipped the material to Jordan and then on to Iraq, through Iraq's Industrial Procurement Company. In the same period, Alcolac also shipped thiodiglycol to Iran and pleaded guilty in 1988 to one count of export violations for its Iranian shipments. Alcolac is currently one of the corporate defendants in a Texas civil suit filed on behalf of some 3,500 Gulf War vets allegedly suffering from Gulf War syndrome.

The suit initially named 64 American and international companies that allegedly provided Iraq with materials used to develop chemical and biological weapons. However, a number of those companies will likely be sued in European courts, and the current number of defendants is in flux. Ronald Welsh, the attorney representing Alcolac in that suit, denied any company wrongdoing in connection with Iraq and added that he had no "personal knowledge" of any Alcolac shipments of thiodiglycol to Saddam Hussein's regime. But U.N. weapons-inspector reports, included in a 1992 Senate Banking Committee hearing on U.S. export policy toward Iraq, identified shipments of thiodiglycol that were sent to Iraq by Alcolac.

A spokesman for the company that now owns Alcolac emphasized that the "alleged illegal infractions" occurred before Alcolac was obtained by the current ownership.

AMERICAN TYPE CULTURE COLLECTION

(Manassas, Virginia)

1985 to 1989 -- ATCC is a nonprofit that provides biological products, technical services and educational programs to private industry, government and academia. It sent to Iraq some 70 shipments of deadly germs, which included anthrax bacteria, E. coli bacteria, salmonella bacteria, bacillus megaterium (which causes meningitis), bacillus subtilus and bacillus cereus (which are strains of anthrax), brucella abortus (which causes influenza), brucella melitensis (a bacteria that attacks major organs), clostridium botulinum (a source of botulism), clostridium perfringens (which causes lung failure), clostridium tetani (which causes muscle rigidity), and Francisella tularensis (which causes tularemia).

ASSOCIATED INSTRUMENTS DISTRIBUTORS, INC.

(Formerly based in Norcross, Georgia)

Date unknown -- Sold \$12,161,502 worth of carbide cutting tools to Iraq's State Machinery Trading Co., a procurement front for military materials and supplies, according to records introduced at a 1992 Senate Banking Committee hearing. The transaction was financed by a letter of credit from BNL (an Italian bank).

In 1992, company president Nash Rehmann told the *Atlanta Constitution* that the order was destined for the Huteen Establishment, a weapons factory outside of Baghdad. Rehmann elaborated on the transaction in an interview with the *Weekly*. "I got approval from the Commerce Department for the sale," he said. Rehmann also noted that he'd testified before a federal grand jury investigating the BNL loan scandal. (See listing for Banca Nazionale del Lavoro.) "I told them about my sale. They investigated me to see if I was involved in anything illegal, and I was cleared of any wrongdoing by government investigators," he added. "I have nothing to hide, because I did nothing wrong." Rehmann said he closed the company around the time of the first Gulf War.

AXEL ELECTRONICS

(A former division of General Signal that was based in Jamaica, New York. Axel's operations were later sold off and absorbed into other corporate entities.)

1987 -- Provided \$84,000 worth of capacitors capable of powering a firing set for a nuclear

weapon to Iraq's Ministry of Industry and Military Industrialization (MIMI). Hussein Kamel, one of Saddam Hussein's son-in-laws, ran MIMI. In 1995, Kamel and his brother, also a Hussein son-in-law, left Iraq in 1995 and moved to Jordan. There they briefed U.N. weapons inspectors on Iraq's programs to build weapons of mass destruction, handing over crates of documents. Six months later Kamel, his brother and their families returned to Iraq for a promised amnesty. However, Saddam's daughters were forced to divorce their husbands. Then, Kamel and his brother, along with their father, sister and her children, were executed.)

BANCA NAZIONALE DEL LAVORO

(An Italian international bank owned by the Italian government with U.S. headquarters in New York and a branch in Atlanta, Georgia; current U.S. operations are located in Los Angeles, New York City and Chicago.)

1988 to 1989 -- Authorized \$2.16 billion in loans to Iraq, a portion of which Iraq used for various weapons programs. A portion of the BNL loans to Iraq was guaranteed through the U.S. Agriculture Department's Commodity Credit Corporation (CCC). U.S. taxpayers ended up paying the cost of those loans (and some of these weapons programs) because the CCC had guaranteed repayment. BNL also issued approximately 2,500 letters of credit to Iraqi exporters totaling approximately \$800 million. After Iraq defaulted on approximately \$850 million in international loans, BNL filed a claim for more than \$450 million against the U.S. government in the U.S. Court of Federal Claims. In 1995, the federal government agreed to pay the bank \$400 million to settle the claims. Iraq is liable for reimbursing the U.S. Treasury, but repayment is considered unlikely.

The transactions funded by these BNL letters of credit and loans were almost certainly completed, said Jim Tuite, a former investigator for the U.S. Senate Committee on Banking, Housing and Urban Affairs, in an interview with the *Weekly*. Some of the transactions were legally questionable from the start. In 1989, federal agents raided the BNL Atlanta branch. Six BNL employees eventually pleaded guilty to charges connected with off-the-books BNL loans to Iraq. The judge in the case also criticized the American policy of encouraging trade with Iraq as a counterweight to Iran. The court found that this policy created a business climate that encouraged BNL's illegal activity.

From 1985 to 1991, the period of the BNL loans, the company's paid "Consulting Board for International Policy" included former Secretary of State Henry Kissinger, who also was, during that same time frame, a member of the President's Foreign Intelligence Advisory Board.

BECHTEL GROUP

(San Francisco, California)

1988 to August 1990 -- Until the invasion of Kuwait, the company served as engineering consultant for a \$2 billion Iraqi petrochemical complex, known as Petrochemical Complex 2, near Baghdad. Bechtel's contracts were with Iraq's Technical Corp. for Special Projects, an Iraqi front company for military-related projects. Bechtel, a privately owned, multinational corporation, has just won a U.S. Agency for International Development contract to rebuild Iraq's infrastructure. The contract, won without traditional competitive bidding, starts at

\$34.6 million and could eventually rise to nearly \$700 million.

Bechtel's ties with former and current U.S. government officials and agencies run deep. George Shultz, the U.S. secretary of state under Reagan, Bechtel's former president, is currently on the company's board of directors. Former Reagan Defense Secretary Casper Weinberger was Bechtel's general counsel. Reagan's head of the Atomic Energy Commission was W. Kenneth Davis, a former Bechtel vice president for nuclear development. Former CIA Director Richard Helms also worked as a Bechtel consultant. President George W. Bush appointed Ross Connelly, former head of Bechtel Investments, as chief operating officer of the Overseas Private Investment Corporation.

Bechtel representatives confirmed the company's past business dealings with Iraq.

BREEZEVALE, INC.

(Formerly based in Woodbridge, New Jersey)

Date uncertain -- Received letters of credit totaling more than \$5.9 million (from BNL, an Italian bank) to supply tires and tubes for trucks and earthmovers to the Iraqi Trading Company. It is unclear how that heavy equipment was used. But Iraqi Trading Co. was identified by congressional testimony, researchers and media reports as a front company to purchase materials for Iraq's military. Company may have ceased operations.

CANBERRA INDUSTRIES

(Meriden, Connecticut)

1986 -- Canberra Industries and Canberra Elektronik GmbH, in Germany, provided \$30,000 worth of electronic and computer equipment to the Iraqi Atomic Energy Commission. In 2001, Canberra Industries became part of the newly formed \$9 billion Areva Group, created from a merger of two leading companies in the nuclear field. Besides operations in nuclear-related fields, Canberra is now selling Homeland Security technology and equipment.

CARL SCHENCK AG

(A German company, with various North American branches)

1987 -- Provided more than \$10,000 worth of computers for process control and data evaluation to Saad 16, Iraq's primary missile research-and-development site.

CARL ZEISS

(A German company with American operations headquartered in Thornwood, New York)

1989 -- Supplied \$105,000 worth of microcomputers to the Iraqi Ministry of Defense, for use with a Zeiss planicomp (digital mapping) system for map-work measurements and calculations of photographic data.

CATERPILLAR, INC.

(Peoria, Illinois)

Date uncertain -- Sold \$9,902,605 worth of tractors to Iraq. They were used in construction projects involving Iraq's nuclear and Condor II ballistic-missile programs. Purchase was funded by BNL (an Italian bank), according to records compiled for a 1992 Senate Banking Committee report on U.S. export policies prior to Iraq's invasion of Kuwait. Caterpillar currently has a number of contracts with the U.S. Department of Defense to supply the military with heavy equipment.

COMTEC INTERNATIONAL, INC.

(Formerly based in Englewood, Colorado)

1988 -- Provided \$117,000 worth of frequency synthesizers and equipment used to repair and maintain handheld radios of the Civil Defense Group of the Iraqi Ministry of the Interior, which oversaw the secret police. Also supplied \$161,000 worth of radio transmitters and amplifiers used at base stations to communicate with Civil Defense Group units. (In addition, Iraq received a loan for \$36 million from BNL, an Italian bank, to buy a mobile satellite-tracking system from Comtech.) In 2002 the company reported an accumulated deficit of nearly \$16.5 million. Company may have ceased operations.

CONSARC

(Ranocas, New Jersey)

1989 to 1990 -- Contracted to supply high-performance furnaces, valued at \$11 million, for making missile parts and melting zirconium, as well as \$575,000 worth of numerical-control equipment for use in high-performance furnace systems. Material sold to the Ministry of Industry and Military Industrialization (MIMI), which was responsible for Iraq's nuclear-, conventional-, missile and chemical-weapons programs. Hussein Kamel, one of Saddam Hussein's son-in-laws, ran MIMI. In 1995, Kamel and his brother, also a Hussein son-in-law, left Iraq in 1995 and moved to Jordan. There they briefed U.N. weapons inspectors on Iraq's weapons-of-mass-destruction programs, handing over crates of documents. Six months later Kamel, his brother and their families returned to Iraq for a promised amnesty. However, Saddam's daughters were forced to divorce their husbands. Kamel and his brother, along with their father, sister and her children, were then executed.

COPELAND INTERNATIONAL, INC.,

(Now Copeland Corporation, based in Sidney, Ohio. It's a subsidiary of Emerson Electric Co., headquartered in St. Louis, Missouri.)

Date uncertain -- Received letter of credit for \$147,120 from BNL (an Italian bank) to sell air-conditioning compressors to the Iraqi Trading Company, a front group for the Iraqi government. It's unclear what the compressor was used for, but Iraqi Trading was identified by congressional testimony as a front company to purchase materials for Iraq's military. A spokesman for Emerson Electric, which owns Copeland's assets, said he has no information on Posi Seal's exports to Iraq.

DATA GENERAL CORP.

(Formerly headquartered in Westboro, Massachusetts. The company was purchased by EMC Corp., based in Hopkinton, Massachusetts.)

1989 -- Supplied \$324,000 worth of computers for mapping and surveying to the Iraqi Ministry of Defense.

DEKTOR COUNTERINTELLIGENCE AND SECURITY, INC.

(Formerly based in Savannah, Georgia)

1985 -- Provided more than \$38,000 worth of communication equipment to the Iraqi Ministry of the Interior, which oversaw the secret police. According to corporate records from Georgia's Secretary of State Office, this company began operations in 1980 and was "administratively dissolved" in 1995.

DOW CHEMICAL

(Midland, Michigan)

1988 -- Sold Iraq \$1.5 million worth of pesticides. Iraq also received loans for \$11,497,000 from BNL (an Italian bank) to buy chemicals and plastics from Dow. Critics have claimed these pesticides could have been used in Iraq's chemical-weapons program. But Dow spokesman Scott Wheeler told the *Weekly* that none of the pesticides sold to Iraq could be "weaponized." Wheeler also said that Dow Chemical continued to sell "herbicides, fungicides and insecticides" to Iraq until February 2003. All recent sales were evaluated and approved by the U.N. Security Council, and in line with the U.N. trade embargo and sanctions in place since 1991, he added.

DRESSER CONSTRUCTION AND EQUIPMENT

(Formerly based in Libertyville, Illinois, the company was purchased by Komatsu America Corp., which is based in Vernon Hills, Illinois, and affiliated with Japan-based Komatsu Industries.)

Date unknown -- Sold 25 wheel loaders worth \$4,750,530 to Iraq's State Machinery Trading Co., a procurement front for military supplies and items. The transaction was financed through a letter of credit from BNL (an Italian bank). Information about the transaction came to light during a 1992 Senate Banking Committee hearing.

DUPONT

(Wilmington, Delaware)

1989 -- Supplied \$30,000 worth of fluorinated Krytox vacuum-pump oil used in the Iraqi centrifuge program (which produced materials for the nuclear-weapons program) to the Iraqi State Company for Oil Products. Krytox is a lubricating oil used in vacuum pumps where safety is critical. Michelle Reardon, a spokesperson for Dupont, confirmed the sale of Krytox oil but not its dollar value. "In 1989, Dupont was licensed by the U.S. to sell a specialty lubricant to the Iraqi state-run oil company. Two such shipments were authorized by the U.S. and occurred in 1989," said Reardon. "In the ensuing years and under very different relationships between the countries, these shipments were included in reports from Iraq to the United Nations in 1991 and probably the report for 2002."

E G & G PRINCETON APPLIED RESEARCH

(Based in Oak Ridge, Tennessee. Company was restructured and eventually sold to Ametek

Inc., which is headquartered in Paoli, a suburb of Philadelphia, Pennsylvania.)

1989 -- Provided \$55,000 worth of radio-spectrum analyzers for spectroscopic molecular analysis to the Iraqi Ministry of Higher Education. Congressional testimony implicated this agency's involvement in Iraq's weapons programs. This equipment could have both scientific and military uses. A spokesperson for Ametek, Inc., said that it purchased the restructured E G & G in December 2001 and that Ametek has no information about E G & G's past business dealings with Iraq.

EASTMAN KODAK CO.

(Rochester, New York)

1989 -- Supplied more than \$172,000 worth of equipment to analyze high-speed manufacturing processes for missile-development programs to Iraq's Ministry of Defense. A Kodak spokesperson declined to discuss the company's business dealings with Iraq before the first Gulf War, saying he had no knowledge of this reported sale. "Over the past 30 years, all of the company's sales to Iraq have been in full compliance with U.S. and international law," said Gerard Meuchner. He added that he knows of only one sale to Iraq in the last five years, a supply of medical X-ray film.

ELECTRONICS ASSOCIATES, INC.

(Formerly based in West Long Branch, New Jersey)

1987 -- Shipped \$449,000 worth of advanced hybrid analog computer systems used in wind-tunnel experiments to Germany for shipment to Iraq via two other companies: MBB Helicopter Corp. and a German firm, Gildemeister Projecta AG, to Saad 16, Iraq's primary missile research-and-development site. Company may have ceased operations.

ENTRADE INTERNATIONAL, LTD.

(Formerly based in New York City -- firm appears to be defunct.)

Date uncertain -- During the 1980s, this company operated as an American subsidiary of a Turkish company named Enka. According to the Justice Department, company official Yavuz Tezeller allegedly conspired with a bank officer to defraud BNL (an Italian bank) through fraudulent loans and letters of credit. In one allegedly phony deal, Entrade received a BNL letter of credit, according to congressional records, to sell 300 tons of worsted yarn to the Iraqi Atomic Energy Commission. Entrade would then present sham orders from Iraq for agricultural or consumer goods to BNL to get financing for military equipment or materials. Investigators were allegedly pressured to limit fallout from the BNL investigation, because the first Bush administration had backed loan guarantees to Iraq. Then-Attorney General William Barr would not allow Justice Department lawyers to go to Turkey to interview Tezeller, effectively ending the federal investigation of him.

EVAPCO

(Taneytown, Maryland)

Date uncertain -- Supplied ion-exchange equipment, dollar amount not specified, for use in Iraq's chemical-weapons program, according to records from U.N. weapons inspectors that

were cited in the 1992 Senate Banking Committee hearing on U.S. export policy toward Iraq prior to its invasion of Kuwait.

FINNIGAN MAT US

(Now called Thermo Finnigan MAT, based in Germany, with various U.S. locations)

1985 to 1988 -- Manufactured at least two mass spectrometers for Iraq's nuclear program. U.N. inspectors found the two spectrometers during the 1990s. Company also supplied equipment used for work with gasses and solids in research related to the nuclear-weapons program. And Finnigan provided \$1.14 million worth of computers and mass spectrometers for nuclear research to the University of Mosul, a procurement agent for Saad 16, Iraq's primary missile research-and-development site.

FOXBORO COMPANY

(Based in Foxboro, Massachusetts, it's now a subsidiary of Invensys Systems, Inc.)

1985 to 1986 -- Sold more than \$742,000 worth of computing equipment to the State Company for Oil Products, Baghdad.

GERBER SYSTEMS TECHNOLOGY

(Now known as Gerber Technology, based in Tolland, Connecticut)

1988 -- Provided more than \$367,000 worth of computers, to program and run computer-controlled milling and turning machine tools to the Iraqi Ministry of Industry and Military Industrialization (MIMI), which oversaw Iraq's nuclear, missile and chemical-weapons programs.

GORMAN-RUPP CO.

(Mansfield, Ohio)

Date uncertain -- Supplied motors found in the first round of U.N. inspections in the 1990s that were used in Iraq's chemical-weapons program. The company, however, takes issue with this finding, despite documentation from a 1992 Senate Banking Committee hearing. "We make pumps, not motors," said company president Tom Gorman. "I know about this report. I've had discussions with [the weapons inspectors] about it. And we had investigators from either the Commerce Department or Customs come out to our offices and do an investigation. But they couldn't clear up the confusion either." Gorman claimed that his company was ultimately cleared. "As far as I know, we didn't sell to Iraq, but something could have slipped through over the last 30 years. Anything is possible," he said.

HARDINGE BROTHERS

(Now known as Hardinge, Inc., based in Elmira, New York)

Date uncertain -- Manufactured a super-precision turning lathe found by U.N. inspectors at Al Atheer, Iraq's nuclear-weapons design-and-research center. A lathe would be used in the production of nuclear centrifuges, which are high-speed machines used to separate heavier uranium molecules from lighter ones. U.N. weapons inspectors destroyed the lathe in the first round of inspections.

HEWLETT-PACKARD

(Palo Alto, California)

1985 to 1990 -- Supplied \$96,000 worth of computers to design and manufacture molds to the Nassr State Enterprise for Mechanical Industries. Nassr procured Scud-enhancement equipment for the Taji chemical-munitions site. Nassr also procured and produced equipment for Iraq's nuclear program and artillery plants. In addition, Hewlett-Packard provided more than \$690,000 worth of computer equipment and frequency synthesizers to the Ministry of Industry and Military Industrialization (MIMI), responsible for Iraq's nuclear-, conventional-, missile and chemical-weapons programs.

Other contracts: \$254,000 worth of frequency synthesizers for developing surveillance radar; \$834,000 worth of computers for engineering applications and cryptographic and related equipment to the Ministry of Oil; \$25,000 worth of electronic-testing and computer-graphics equipment to the Iraqi Atomic Energy Commission, which was responsible for nuclear-weapons research. Also, through German firm Messerschmidt Bolkow Blowm (Iraq's main missile-technology supplier), sold more than \$600,000 worth of testing and measurement equipment and general-purpose computers for developing and testing radar antennas, radio-spectrum analyzers and optical-fiber cable for use in labs at Saad 16, Iraq's missile research-and-development center.

Also provided three computers for operating machine tools, which were discovered by U.N. inspectors at Al Rabiya, a manufacturing site for enriched uranium. (Hewlett-Packard also obtained letters of credit from BNL [an Italian bank] totaling \$326,000 to sell computer-systems hardware and software to the Iraqi Trading Company, a front group for the Iraqi government. Iraq, in turn, received a BNL loan for \$142,055 to buy spare parts from Hewlett-Packard.)

HIPOTRONICS

(Brewster, New York)

1989 -- Sold nine power-supply units worth \$287,000 -- key equipment used in Iraq's nuclear-weapons program.

HONEYWELL

(Morristown, New Jersey)

1984 to 1988 -- Provided more than \$353,000 worth of computers to monitor heating, ventilation and air conditioning to the Iraqi Ministry of Industry and Military Industrialization (MIMI), which supervised nuclear-, conventional-, missile and chemical-weapons programs. Also prepared for Iraq a feasibility study and design data for a fuel-air explosive warhead for ballistic missiles.

Honeywell also sold compasses, gyroscopes and accelerometers to Iraqi Airways, listed by the U.S. Department of Justice as a front company for military procurement. These components could be used for building ballistic missiles. In addition, Honeywell supplied a "process flow controller" used in Iraq's chemical-weapons program.

Richard Silverman, a spokesman for Honeywell, declined comment on the company's business dealings with Iraq during the 1980s. "Honeywell has been, and continues to be, in compliance with all U.S. export-control laws and with U.S. sanctions against Iraq," said Silverman.

HUGHES HELICOPTER

(Was based in Culver City, California. The company is now called MD Helicopters, Inc., and is based in Mesa, Arizona, after being sold in 1984 to McDonnell Douglas.)

1983 -- Supplied Iraq with 60 civilian helicopters, eventually modified for military use. Sale approved by Reagan administration.

IBM

(Armonk, New York)

2000 -- Provided switches, chips and processing technology to Huawei Technologies Co., Ltd., a Chinese maker of communications networks. Between 2000 and 2001, Huawei outfitted Iraq's air-defense system with fiber-optic equipment in violation of the U.N. embargo. Huawei also bought Commerce Department-approved supercomputers not only from IBM but also Digital Equipment Corporation and Hewlett-Packard.

INTERNATIONAL IMAGING SYSTEMS

(Formerly located in Milpitas, California)

1981 to 1990 - Sales to Iraq included \$28,000 worth of electronic-imaging equipment to Iraqi Directorate General for purpose of enhancing satellite photos used in reconnaissance or missile targeting; more than \$295,000 worth of electronic image-enhancement equipment to the Iraqi Space and Astronomy Research Center; \$693,000 worth of infrared image-enhancement equipment for aerial reconnaissance and missile tracking to the University of Mosul, a procurement arm for Saad 16, Iraq's primary missile research-and-development site. Records from California's Secretary of State office indicate this company began operations in 1980 and has since been dissolved.

INTERNATIONAL SIGNAL AND CONTROL CORP.

(Formerly located in Lancaster, Pennsylvania -- company defunct.)

1984 to 1989 -- ISC supplied, via Chilean arms dealer Carlos Cardoen, cluster-bomb technology and blueprints to build a cluster-bomb factory in Iraq. Cardoen is now on the run from a federal warrant for illegally exporting weapons to Iraq. ISC's technology and blueprints were allegedly used to build a factory in Iraq to manufacture electronic fuses. James Guerin, now serving a 15-year sentence in federal prison in connection with illegal arms exports and other crimes, founded ISC. Some of the arms shipments made were diverted to Iraq. Before Guerin was exposed -- he later pleaded guilty in criminal proceedings in 1992 -- ISC was purchased by Ferranti International, a British company. Ferranti was forced into receivership because of the ensuing financial losses.

Guerin had filled his company with ex-U.S. military and intelligence officers. During the Ford administration, Guerin began illegally selling arms to South Africa as part of an

intelligence operation in which the South African military agreed to spy on Soviet ships off its coast. (President Jimmy Carter later terminated the ISC-South African covert operation.) A former deputy CIA director, Admiral Bobby Inman, then head of Naval Intelligence, served as the liaison between Guerin and the U.S. government. And it was publicity about Inman's connections to Guerin that ultimately cost him the chance to become CIA director.

IONICS

(Watertown, Massachusetts)

Date Uncertain -- Ionics supplied a water-demineralization plant and pumping station costing \$1,780,000 to the State Establishment for Heavy Engineering Equipment (SEHEE), a front for Iraq's nuclear-weapons program. Deal was financed with a letter of credit from BNL (an Italian bank). Ionics also supplied SEHEE with a water-desalination plant costing \$1,375,000, financed by a BNL loan. These transactions were documented in a 1992 hearing by the Senate Banking Committee.

KENNAMETAL, INC.

(Latrobe, Pennsylvania)

1987 to 1990 -- Sold \$900,000 worth of metalworking products to Iraq, including \$81,917 to Al Kadisyia State Establishment, a manufacturing program specializing in metallurgy. The Atlanta branch of BNL (an Italian bank) financed the deals. In a written statement, the company acknowledged sales of "approximately \$900,000 of products that were used to tool machines -- some of those machines ended up in Iraq." But "all of the sales were in full compliance with the laws at the time and had been approved in advance and licensed by the British government," stated Riz Chand, Kennametal's vice president of Human Resources and Corporate Relations. He also stated that two separate U.S. government reviews "found that Kennametal made no illegal exports and no charges were filed."

LEYBOLD VACUUM SYSTEMS

(A German company with U.S. subsidiary based in Export, Pennsylvania)

1988 to 1989 -- Sold electron-beam welder, valued at \$880,000, used to assemble centrifuges for enriching uranium and for the repair of military jet engines and rocket cases, to the Nassr State Enterprise for Mechanical Industries. Welder was shipped via German parent company, Leybold. Also sold a machine valued at \$530,000 to operate the welder. Later installed machinery that doubled the size of the original.

LINCOLN ELECTRIC CO.

(Cleveland, Ohio)

Date uncertain -- Supplied welding machines via company called Matrix Churchill, which were used to build Iraqi missile factories, according to U.N. inspectors. Received letter of credit for \$840,000 from BNL (an Italian bank) to sell machines and supplies to Al Fao State Establishment, a military industrial facility. The equipment was used for Iraq's nuclear and Condor II ballistic missile weapons programs. According to the 1992 Senate Banking Committee hearing report on U.S. exports to Iraq prior to its invasion of Kuwait, Lincoln also supplied two welding machines worth \$513,994 (also financed by BNL) to Iraq's State

Machinery Trading Company for use in Iraq's nuclear and Condor II ballistic-missile weapons programs.

LITTON INDUSTRIES

(Formerly based in Beverly Hills, California. Purchased in 2001 by Northrop Grumman, which is based in Los Angeles, California.)

1984 to 1989 -- Helped bankroll German firms Gildemeister Projecta AG and Gipro, the main contractor for Saad 16, Iraq's primary missile research-and-development site. Litton maintained a 14.3 percent share in Gildemeister throughout the life of its contract with Saad 16.

LUMMUS CREST, INC.

(Bloomfield, New Jersey -- now part of ABB Global, Inc., a Swiss conglomerate with U.S. headquarters in Norwalk, Connecticut.)

1985 to 1989 -- Provided more than \$250,000 worth of radio-spectrum analyzers. Also provided computers for inventory, quality control, lab analysis and engineering calculations to Iraq's Ministry of Industry and Military Industrialization (MIMI). The equipment was used for Iraq's multibillion-dollar petrochemical complex at Basra to make thiodiglycol, a chemical used in the manufacture of mustard gas. Lummus also received letters of credit for \$53,827,776 from BNL (an Italian bank) to sell machinery and supplies to the Technical Corps for Special Projects, an Iraqi front company, according to documentation provided for a 1992 Senate Banking Committee hearing.

MBB HELICOPTER CORP.

(Formerly located in West Chester, Pennsylvania)

1989 -- Provided more than \$957,000 worth of compasses, gyroscopes and accelerometers to the Iraqi Air Force. According to records from Pennsylvania's Department of State, this company was registered as a "foreign business corporation." MBB Helicopter Corporation began operations in 1979. Its last Pennsylvania filing was dated 1988. Company may have ceased operations.

MACK TRUCKS, INC.

(Allentown, Pennsylvania -- Mack Trucks, Inc., is now a subsidiary of AB Volvo, based in Sweden.)

Date uncertain -- According to a 1992 Senate hearing report, Mack Trucks supplied \$6,038,488 worth of truck parts, tractors, wreckers, trucks with cranes and dumpers to Iraq for use in building its nuclear and Condor II ballistic-missile programs. Deals financed by BNL (an Italian bank).

MAHO AG

(A German company that has become part of the Gildemeister Group, which is based in Bielefeld, Germany. Has various U.S. plants.)

Date uncertain -- Manufactured three milling machines found by U.N. inspectors, in first

round of inspections, to have been used in Iraqi nuclear-weapons program.

MATRIX CHURCHILL CORP.

(Formerly located in Cleveland, Ohio -- company defunct)

1988 to 1990 -- Constructed in Iraq a glass-fiber production plant, which made missile rocket-motor casings. Plant built at Nassr State Establishment, was known as Project 3128. And with the company XYZ Options, Matrix Churchill constructed at Al Atheer, Iraq's nuclear weapons design-and-research center, a \$14 million plant used to produce high-precision tungsten carbide tools for Iraq's nuclear program. The plant, financed by Italian banking giant Banca Nazionale del Lavoro (BNL), was completed in 1990, but later destroyed under first U.N. inspection program. Matrix Churchill, along with other U.S. and European firms, was part of a complicated Iraqi arms-procurement network, controlled by the Iraqi entity TECO or Techcorp, officially called the Technical Corps for Special Projects. TECO was a sub-unit of Iraq's Ministry of Industry and Military Industrialization. TECO also ran Al-Arabi Trading Co., a front for Iraq's biological-weapons program. Matrix Churchill also received a letter of credit for \$81 million from BNL to supply machinery and other supplies to TECO and a letter of credit for \$2,345,300 to sell precious metals to Nassr State Enterprises for Mechanical Industries, which procured equipment for Iraq's missile program.

McNEIL AKRON, INC.

(Now McNeil and NRM Corp., based in Akron, Ohio)

Date uncertain -- According to a 1992 Senate Banking Committee hearing on U.S. export policy toward Iraq before the Kuwait invasion, McNeil Akron, Inc. supplied \$1,203,770 worth of tire-manufacturing machines to the Iraqi State Enterprise for Heavy Engineering Equipment, a nuclear-weapons program/centrifuge manufacturing procurement front. Deal financed with a loan from BNL (an Italian bank). A company representative said he didn't have specific information regarding McNeil Akron's dealings with Iraq, but he believed McNeil Akron probably did do business there before the first Gulf War.

MEMPHIS INTERNATIONAL, INC.

(Atlanta, Georgia; part of the Memphis Group, headquartered in Memphis, Tennessee)

1987 to 1988 -- Supplied \$4.47 million worth of compasses, gyroscopes and accelerometers to Iraqi Airways, listed by U.S. Department of Justice as a procurement arm for Iraq's military.

MILLER ELECTRIC

(Appleton, Wisconsin)

Date uncertain -- Supplied \$67,192 worth of circuit-card capacitors and an electric welding machine to Iraq's State Enterprise for Mechanical Industries, an organization sometimes used by Iraq as a military-procurement front for its nuclear-weapons program. Deal was financed with a letter of credit from BNL (an Italian bank).

MOUSE MASTER

(Formerly located in Lilburn, Georgia)

Date uncertain -- U.N. weapons inspectors in the 1990s reported finding a generator used in chemical weapons program that was supplied by Mouse Master. Company may have ceased operations.

Made in the USA, Part III: US Company Listings N-Z

by Jim Crogan

April 25 - May 1, 2003

NCR CORPORATION

(Dayton, Ohio)

Date uncertain -- Supplied \$1,207,036 worth of computers, peripherals and spare parts to Iraq's State Establishment for Heavy Engineering Equipment (SEHEE), a front for Iraq's nuclear-weapons/Big Gun (giant cannon) program. Deal was financed with a letter of credit from BNL (an Italian bank). A company spokesperson said the company "did have a presence inside Iraq from 1984 to September 1990." He added that NCR had received a license from the U.S. government to export technology to Iraq. The company, said spokesman Jeff Dafler, operated in full compliance with all applicable U.S. laws, governing exports to Iraq during that time period.

NRM CORP.

(Formerly located in Akron, Ohio, it is now part of McNeil and NRM Corp., also based in Akron.)

Date uncertain -- Supplied \$3,310,485 worth of tire-manufacturing machines and \$950,000 worth of presses and accessories to Iraq's State Establishment for Heavy Engineering Equipment, a nuclear-weapons program. Deals were financed with loans from BNL (an Italian bank). Another company, McNeil Akron Inc. (see listing above), bought NRM's assets at a bankruptcy sale in 1992. A McNeil Akron and NRM corporate representative said he had no information regarding the former NRM's exports to Iraq.

NORWALK CO.

(South Norwalk, Connecticut)

Date uncertain -- Supplied a power and compressor assembly costing \$66,325 to Iraq's State Establishment for Heavy Engineering Equipment, a nuclear-weapons program. Deal was financed with loan from BNL (an Italian bank).

NU KRAFT MERCANTILE CORP.

(Formerly located in Brooklyn, New York)

1988 -- An alleged front company, this subsidiary (reportedly no more than an empty warehouse) of Brooklyn-based United Steel and Strip Corp., an import/export firm, allegedly

transferred to Iraq more than 300 tons of thiodiglycol, which is used to make mustard gas. Allegedly received the illegally exported material from Alcolac International. The thiodiglycol reportedly traveled from Anthwerp, Belgium, to Jordan and then on to Iraq. Both Nu Kraft and United Steel and Strip Corp. have apparently ceased operations.

PERKIN-ELMER CORP.

(Formerly based in Norwalk, Connecticut. After company was sold to another corporation, the combined entities were renamed PerkinElmer Corp. It is based in Wellesley, Massachusetts.)

1986 to 1989 -- Supplied more than \$82,000 worth of electronic and photographic equipment for chemical research to Iraqi Atomic Energy Commission as well as more than \$198,000 worth of computers to the Al Qaqa State Establishment, Iraq's nuclear-weapons-testing program. A company spokesman said he has no information regarding exports to Iraq.

PHILLIPS EXPORT

(Now part of ConocoPhillips, a Houston, Texas-based oil and energy company.)

1983 to 1985 -- Phillips Export (then part of Phillips Petroleum) sold 500 tons of thiodiglycol, a material used to make mustard gas, to the Iraqi State Enterprise for Pesticide Production, via Dutch firm KBS Holland. Also manufactured a five-ton shipment of thiodiglycol, which allegedly made its way to Iraq via the Spanish firm Cades. Cades claims chemical was destroyed prior to its delivery. Phillips Export/ConocoPhillips is a defendant in a Texas civil suit filed on behalf of some 3,500 Gulf War vets who are allegedly suffering from Gulf War Syndrome. The attorney representing ConocoPhillips in that class-action suit did not respond to the *Weekly's* call for comment.

POSI SEAL, INC.

(Formerly based in North Stonington, Connecticut; company passed through several owners. Its assets eventually were sold to Emerson Electric Company, based in St. Louis, Missouri.)

Date uncertain -- Provided a system to fill payloads of projectiles for Iraq's chemical-weapons program, according to evidence presented in a 1992 Senate Banking Committee hearing.

PRESRAY CORP.

(Based in Pawling, New York, the company is a subsidiary of the Pawling Corp.)

1988 to 1989 -- Sold rubber door seals, which can be used in nuclear or chemical facilities to prevent the spread of contaminants, to Iraq's State Electrical Industries. Vice President Ted Hollander confirmed Pressray's exports to Iraq. "I'm not happy about it, but yes, we did do business with Iraq before the first Gulf War," said Hollander. He added that Pressray got approval for the sale from the U.S. Department of Commerce. "We actually had two orders to deliver, but the second, larger one was cancelled," he said.

PURE AIRE CORP.

(Formerly located in Charlotte, North Carolina)

Date uncertain -- Named as chemical-weapons-materials supplier by U.N. weapons inspectors in the first round of inspections in the 1990s. However, inspectors did not specify what Pure Aire materials were found at Iraq's Muthana weapons facility. Company may have ceased operations.

REDLAKE IMAGING CORP.

(Formerly based in Morgan Hill, California. After various corporate ownership changes, company is now called Redlake MASD, Inc., and is based in San Diego, California. It's a subsidiary of Roper Industries, headquartered in Duluth, Georgia.)

1990 -- Supplied more than \$10,000 worth of photographic equipment for scientific research on projectile behavior to the A. M. Daoud Research Center, a weapons-research facility. A spokesperson for Redlake MASD said the current company management has no access to the records of Redlake Imaging Corp.'s exports to Iraq.

REXON TECHNOLOGY CORP.

(Formerly based in New Jersey; company out of business.)

Date uncertain -- Tried to sell 300,000 worth of artillery fuses to Iraq. The shipment was intercepted and the company prosecuted by the U.S. Justice Department. Company pleaded guilty in 1995 to violating Arms Export Control Act. Company fined \$500,000 and ordered closed by the court.

ROCKWELL INTERNATIONAL CORP.

(Defense-related divisions of Rockwell International were purchased in mid-1990s by Boeing, which is headquartered in Chicago.)

ROCKWELL INTERNATIONAL COLLINS

(Cedar Rapids, Iowa. Company now known as Rockwell Collins, Inc.)

1985 to 1987 -- Rockwell International sold \$7,500 worth of navigational and directional finding radar to Iraqi Army Aviation Ministry. Also sold \$86,000 worth of navigational and directional finding radar for airborne communications to Iraqi Airways, listed as a front company for military procurement by the U.S. Justice Department. Company also sold \$114,000 worth of navigational and directional finding radar to the Iraqi Air Force.

Rockwell International Collins sold \$42,000 worth of navigational and directional finding radar for airborne communication to the Iraqi Air Force Aviation Supply. Also sold \$155,000 worth of navigational and directional finding radar for airborne communication, as well as electronic assemblies and integrated circuits to the Iraqi Army Aviation.

The Rockwell entities also sold more than \$128,000 worth of navigational and directional finding radar for airborne communication to the Iraqi Ministry of Defense.

ROTEC INDUSTRIES, INC.

(Elmhurst, Illinois)

1989 -- Supplied conveyor-belt systems costing \$18,708,365 to Iraq's State Machinery

Trading Company and the Technical Corps for Special Projects. These exports were paid for with a letter of credit from BNL (an Italian bank). The conveyor systems were used for Iraq's nuclear and Condor II ballistic missile weapons programs, according to evidence from a 1992 Senate Banking Committee.

Company officials confirmed the transactions, also noting that Rotec had difficulty collecting its fee from BNL, said president Steven Ledger. The equipment, he noted, was used to move concrete for construction projects. Rotec did business with Iraq from 1980 until Iraq invaded Kuwait. "We still had two people in Iraq when the invasion occurred and we had to get them out after the invasion," said Ledger. "Since our equipment wasn't high technology, or restricted, we didn't have to get any special licenses to sell it." All of Rotec's sales, he said, were legal under existing U.S. law at the time.

Company owner Robert Oury said that Rotec supplied equipment for five construction projects. Four, he said, were dam projects designed to harness waterpower. "We did a lot to help Iraq's people, and we are proud of our contributions," said Oury. Neither Oury nor Ledger had any knowledge their equipment was used on military projects. Rotec's owner also said he supports President Bush's Iraq police. "And now, I think it's time for American business to step up to the plate and deliver," he said. "American business can not only help Iraq rebuild its country, but we can also help Iraq and the U.S. repair their relationship." Rotec, he added, is anxious to resume business dealings in Iraq. And he's hoping the American government's reconstruction efforts will be wide-ranging. "We need to begin a housing initiative in Iraq," he said. "What would be more valuable to the Iraqi people?" he asked. "Building a bridge, an airport or building a hundred houses for the people?"

SACKMAN ASSOCIATES

(Sudbury, Massachusetts)

1989 -- Sold more than \$93,000 worth of electronic assemblies, integrated circuits and computers to analyze the performance of coatings on rocket and missile cones to Iraq's Ministry of Industry and Military Industrialization (MIMI). Company apparently has ceased operations.

SCIENTIFIC ATLANTA

(Atlanta, Georgia)

1987 -- Sold \$820,000 worth of antenna testers via German firm MBB, for shipment to Saad 16, Iraq's primary missile research-and-development site. Company is currently involved in broadband sales.

SCIENTIFIC DESIGN CO., INC.

(Little Ferry, New Jersey)

1989 -- Contracted to supply some \$5.74 million in engineering technology and catalyst supplies for an ethylene glycol plant that was to be built by Iraq's State Establishment for Heavy Engineering Equipment (SEHEE). It's unclear what the projected plant was ultimately intended to produce, as ethylene glycol has many potential uses. However, evidence suggested that SEHEE was a nuclear-weapons/Super Gun (giant cannon)

procurement program. Deal was financed with a loan from BNL (an Italian bank). A company spokesman, in an interview, confirmed the contract, but said that work by Scientific Design ended when Iraq invaded Kuwait in August 1990 and sanctions were initiated against Iraq. The plant was apparently never completed, said corporate counsel Thomas Towell.

SEMETEX CORP.

(Formerly based in Torrance, California)

1989 -- Provided more than \$5 million worth of computer equipment for manufacturing transistors, silicon diodes and photovoltaic devices to the Al Mansour factory, which was responsible for supplying the Iraqi rocket-launch site at Karbala, the SCUD-missile enhancement sites Al Hillah and Al Falluja, and a space-launch center at Al-Anbar. Iraq also received a loan for \$7,673,500 from BNL (an Italian bank) to buy technology from Semetex for the fabrication of semiconductors for the State Establishment for Heavy Engineering Equipment, a procurement front for Iraq's nuclear-weapons program. Semetex began operations in 1975. But according to records from California's Secretary of State office, its corporate registration was suspended. Company appears to have ceased operations.

SERVAAS, INC.

(Indianapolis, Indiana)

1988 to 1990 -- Supplied Iraq with "copper scrap refining machines, tools, parts and technical documents" to build a factory that would have made artillery shells and gun cartridges, according to records introduced at a 1992 Senate Banking Committee hearing. The work was done by Bridgeport Brass, an Indiana brass mill owned by Servaas.

The \$40,602,000 deal was financed, with U.S. government approval, through a letter of credit from BNL (an Italian bank). The go-between with the Iraqis was Matrix Churchill, a now defunct company that was bought by the Iraqis (see Matrix Churchill entry). Servaas shipped all the material to Iraq, but the first Gulf War halted construction. The U.S. government eventually helped Servaas get full payment on the deal by allowing it to draw from frozen Iraqi funds for the final \$16 million. Company owner Beurt Servaas, a former Indianapolis city councilman, testified before Congress that he had no knowledge that the factory would be producing ammunition. He said he believed the factory was to produce commercial, non-military items.

SIEMENS CORP.

(A German company with a variety of American operations. Siemens U.S. is based in New York City.)

1989 -- Supplied \$79,000 worth of computers for testing and control of X-ray diffraction systems to Iraq's Ministry of Industry and Military Industrialization (MIMI). Thomas Phillips, a company spokesman, said all of Siemens' transactions with Iraq were "in full compliance with international rules." Siemens' work in Iraq primarily included "energy, transport, intelligence and communications," Phillips told the *Weekly*. But he declined to discuss specifics.

SIP CORP.

(SIP Corp. is headquartered in Geneva, Switzerland. Its U.S. subsidiary, American SIP Corp., is based in Hebron, Kentucky.)

Date uncertain -- Manufactured jig-bore equipment (high-precision milling machines) found by U.N. inspectors to have been used in the Iraqi nuclear-weapons program. A company official acknowledged that SIP probably did business with Iraq in the 1980s. "But I think that Geneva probably handled that business, and the company has not sold any machinery to Iraq since sanctions were imposed following the 1991 Gulf War," said Greg Dunkley, of American SIP.

SPECTRAL DATA CORP.

(Formerly based in Champaign, Illinois)

1985 -- Provided \$27,000 worth of image processing, display-systems and multi-spectral digital equipment to the University of Mosul, a procurement arm for Iraq's missile-development program. Company may have ceased operations.

SPECTRA PHYSICS

(Mountain View, California)

1987 -- Provided \$19,000 worth of lasers and laser-related systems to Salah al Din, a military-electronics factory built by the French, which produced three-dimensional early-warning radars, electronic countermeasures and guidance components. The site also produced equipment for making fuel for nuclear weapons, intended to arm warheads.

SPERRY CORP.

(Merged with Burroughs in 1986 to form Unisys Corp, based in Blue Bell, Pennsylvania.)

1985 to 1986 -- Supplied \$32,000 worth of computers to Saad 21, a weapons facility. Sperry also sold \$68,000 worth of compasses, gyroscopes and accelerometers. These components were on the Department of Commerce list of parts used to build ballistic missiles. In addition, Sperry provided \$6.2 million worth of computers to the Iraqi National Computer Center and more than \$8.7 million worth of computers for a personnel database that was reportedly used for surveillance activities by the Iraqi Ministry of the Interior, which supervised the secret police. Iraq also received a loan of \$1,351,000 from BNL (an Italian bank) to buy computer hardware and software from Sperry, according to evidence provided for a 1992 Senate Banking Committee hearing. A Unisys company spokesperson said she had no information concerning Sperry's exports to Iraq.

SULLAIRE CORP.

(Formerly based in Charlotte, North Carolina)

Dates unknown -- U.N. weapons inspectors in the first round of inspections after Gulf War I, found a variety of equipment and machinery supplied by Sullaire for use in Iraq's chemical-weapons program. Items included power-supply units, air filters for drying chemicals, buffer vessels, pressure and temperature regulators, and a refrigerator for air-drying and air compressors. Company may have ceased operations.

SWISSCO MANAGEMENT GROUP, INC.

(Formerly based in Miami Lakes, Florida. Was part of the now-dissolved Westfield Holdings, Inc., which also was based in Miami Lakes, Florida. Swissco was dissolved in 1991.)

1982 to 1989 -- Shipped approximately 130 tons of unlicensed zirconium, which could be used as an incendiary additive in 24,000 cluster bombs, to Iraq. In 1995, a federal court convicted Swissco in absentia for conspiracy to export 130 tons of zirconium without the required U.S. export licenses, according to records from the Commerce Department's Bureau of Industry and Security Export Enforcement Division. The court fined Swissco \$1,309,230 and suspended the company's export privileges for 10 years. Swissco allegedly worked in concert with Teledyne Wah Chang (an American company) and Chilean arms dealer Carlos Cardoen to ship the zirconium to Cardoen's bomb-making plant in Chile. According to a *Miami Herald* report, Cardoen, now on the run from a U.S. federal warrant charging him with illegally exporting munitions, was last seen in 2001, living in Cuba.

TECHNICAL COMMUNICATIONS CORP.

(Concord, Massachusetts)

Date uncertain -- Supplied \$183,400 worth of equipment and training, including communication security devices to Iraq's Technical and Scientific Materials Division, a biological-warfare and military-support operation. Deal was financed by a letter of credit from BNL (an Italian bank). Also supplied digital systems and services, costing \$198,400 to the State Establishment for Heavy Engineering Equipment, a nuclear-weapons program. This deal also was financed by a BNL loan.

TEKTRONIX

(Beaverton, Oregon)

1985 to 1990 -- Alleged sales to Iraq included: more than \$140,000 worth of oscilloscopes, electronic testing equipment, computers and peripherals to various buyers, including the Military Technical College, University of Baghdad, Iraqi National Oil Co. and the National Center for Engineering; more than \$12,000 worth of oscilloscopes used to maintain Iraqi Air Force computers; at least \$50,000 worth of electronic measuring equipment to SOTI, the procurement arm for rocket production, Scud-missile enhancement and space-rocket development; \$80,000 worth of radio-spectrum analyzers sold to the Iraqi Scientific Research Council. The Scientific Research Council, headed by General Amer Rashid al-Obeidi, was an Iraqi procurement front, whose goal was to acquire sensitive technology, computers and scientific equipment it could channel into Iraq's military-research effort. The Scientific Research Council sponsored a variety of projects, including biological-weapons research, according to a former U.N. weapons inspector. Tektronix also sold a digital oscilloscope, which has nuclear applications, to the German firm Gildemeister, for resale to Saad 16, an Iraqi weapons-manufacturing facility.

In a series of contacts with the *Weekly*, the company acknowledged some, but not all of the exports listed in other documentation. The company's reckoning came up with 16 export licenses for exports whose value totaled less than \$250,000. The company also insisted that it scrupulously complied with U.S. export policies and laws, and took the extra precaution of

screening exports with U.S. government agencies. Tektronix's own export policy requires screening all transactions of materials that could have both civilian and military application, said spokesman Doug Babb. "Where the company has no capability to evaluate the end-user directly, as is the case for Iraq, the company must rely on U.S. governmental licensing authorities, which have access to extensive intelligence capabilities." Another company official added that "To our knowledge, no Tektronix products have entered Iraq since the imposition of sanctions a decade ago."

TELEDYNE WAH CHANG

(Company now called Wah Chang and is based in Albany, Oregon. It's part of Allegheny Technologies, based in Pittsburgh, Pennsylvania.)

1986 -- Exported more than 130 tons of zirconium, which could be used as an incendiary additive in cluster bombs, to the bomb-making plant in Chile of arms dealer Carlos Cardoen, who allegedly sold illegal weaponry to Iraq. U.S. agents, who were investigating illegal zirconium sales to Iraq, raided the company in March 1992. Wah Chang's former parent company, Teledyne Industries, Inc., pleaded guilty in 1995 to federal charges of criminal conspiracy, making false statements and violations of the Export Administration Act and the Arms Export Control Act. Teledyne paid \$13 million in fines for Wah Chang's illegal zirconium exports. Teledyne employee Edward Johnson was sentenced to 41 months in prison in connection with these illegal exports. Wah Chang means "great development" in Chinese.

THERMO JARRELL ASH CORP.

(Formerly based in Franklin, Massachusetts, now part of Thermo Electron Corporation, headquartered in Waltham, Massachusetts)

1989 -- Sold more than \$350,000 worth of spectrometers to measure particles in geological and clinical sample of liquids and solids to the Iraqi Scientific Research Council, a front for the Iraqi military.

TI COATING

(Utica, Michigan)

1989 -- Supplied more than \$373,000 worth of cutting-tool coating and chemical-vapor deposition blueprints as well as training manuals to apply coating supplies used to cover and protect tool-cutting equipment. Materials went to the Badr Establishment of Mechanical Engineering, responsible for producing aerial bombs, and centrifuges used to produce fuel for nuclear weapons.

The transaction was completely legal, said William Zichichi, the company president and CEO. His company, in fact, received export-license approval from the U.S. Department of Commerce, he said. TI sold the supplies and manuals to XYZ Options, Inc., another Iraqi supplier. XYZ then delivered TI Coating's materials to the Badr Establishment of Mechanical Engineering. XYZ, Zichichi said, went bankrupt before TI Coating was paid. TI Coating ultimately received a small settlement as part of XYZ's bankruptcy proceedings, he added.

TRADING AND INVESTMENT CORP.

(Charlotte, North Carolina)

Dates unknown -- Supplied two shipments of float valves and bearings worth \$352,560 to the Al Hilal Industrial Company, named as a "sometime procurement front" for Iraq's weapons programs, according to records from a 1992 Senate Banking Committee. The transactions were financed through letters of credit from BNL (an Italian bank).

This export company, owned by Fanar Alghrary, an Iraqi-American, is still active. Alghrary confirmed to the *Weekly* that his company did sell the two shipments to Al Hilal. But Alghrary disputes the congressional allegation that Al Hilal operated as an Iraqi military-procurement front. "I know about that, and I told [government] investigators that it was B.S.," said Alghrary. "They [Al Hilal] make cooling equipment for buildings. I know them and that's all I know them doing." Alghrary also stated that 90 percent of his sales to Iraq were to Iraq's State Company for Drugs and Medical Appliances Marketing. The U.S. government, he added, approved the sales.

UNION CARBIDE

(Based in Danbury, Connecticut. It merged in 2001 with Dow Chemical Company, headquartered in Midland, Michigan.)

Dates unknown -- U.N. weapons inspectors in the 1990s identified Union Carbide shipments to Iraq of the chemical Xylene, which was used in Iraq's chemical-weapons program. A spokesperson for Dow Chemical said he had no information regarding Union Carbide's exports.

UNISYS CORP.

(Blue Bell, Pennsylvania)

Dates unknown -- Contracts allegedly included: \$8,000 worth of computers to Saad State Establishment, which was involved with Iraq's missile research-and-development programs; more than \$2.4 million worth of computers sold to the Iraqi Ministry of Planning; \$2.2 million worth of computers to the Ministry of Industry and Military Industrialization, which was responsible for nuclear-, missile- and chemical-weapons program; \$323,000 worth of computers sold to Iraq's Nuclear Computer Center; \$430,000 worth of computers sold to Saddam State Establishment, a military-procurement agency; at least \$500,000 worth of computers, ostensibly for use in payroll and accounting, to the Ministry of Defense, which oversaw the State Organization for Technical Industries (SOTI) and Saad 16, a weapons-manufacturing facility. Unisys also supplied more than \$8.7 million worth of computers for a personnel database reportedly used by the Ministry of the Interior, which supervised the Iraqi secret police. The database was set up at airports and border-crossing stations.

A written response issued by the company, stated, "Unisys did supply commercial information technology systems to the country of Iraq in the 1980s before the Gulf War, under proper export licenses by the United States government in accordance with the policy governing relations with Iraq at that time. Unisys has not made any such sales to Iraq, since that time." Maureen O'Brien, a company spokesperson, declined to discuss any specifics

regarding these exports.

VEECO INSTRUMENTS, INC.

(Woodbury, New York)

1986 -- Provided \$4,600 worth of computers for use by German firm Interatom GmbH in the manufacturing of Iraqi nuclear-power stations and the construction of photovoltaic plants for SOTI, a procurement arm for Saad 16, Iraq's primary missile production-and-testing site.

WILD MAGNAVOX SATELLITE SURVEY

(A joint venture between Magnavox Survey System, Inc., and Wild Heerbrugg Survey Company. Magnavox Electronics, a consumer-electronics firm based in Atlanta, is now owned by Dutch-based Koninklijke Philips N.V. Wild Heerbrugg, began in Switzerland. Through mergers and acquisitions, it is now part of Swiss-based Leica Holding B.V. Group.)

1988 -- Supplied more than \$270,000 worth of navigational-, directional-finding radar and airborne-communication equipment to the Iraqi Ministry of Defense. This joint venture appears to have ceased operations.

WILTRON

(Now owned by Anritsu Corp., based in Atsugi, Japan, with North American headquarters in Morgan Hill, California)

1987 -- Shipped scalar network analyzers, capable of testing and developing microwave circuits for missile-guidance radar. Shipments went to Germany for shipment via MBB (a German company) to Saad 16, Iraq's missile research-and-development center. Wiltron also sold \$50,000 of electronic measuring, testing and calibrating equipment.

XYZ OPTIONS INC.

(Formerly located in Tuscaloosa, Alabama -- company defunct.)

1989 -- Sold powder press, suitable for the compaction of nuclear fuels to Iraq. XYZ, in partnership with Matrix Churchill Corp. (MCC), also built a \$14 million plant for the production of high-precision tungsten-carbide tools. The contract was with Iraq's Badr Establishment of Mechanical Engineering, responsible for producing aerial bombs, and centrifuges used to produce fuel for nuclear weapons. The MCC/XYZ/Badr plant was located at Al Atheer, Iraq's nuclear weapons design-and-research center, which was destroyed during the first round of U.N. inspections in the 1990s. XYZ also owned CarbiTech of Topeka, Kansas, which trained dozens of Iraqis to manufacture carbide-tipped inserts for machine tools used in nuclear production. In addition, XYZ received letters of credit totaling \$6,826,193 from BNL (an Italian bank) to sell furnaces, machinery, equipment and supplies to the Iraqi State Machinery Trading Company. XYZ obtained equipment for its Iraqi project with MCC from about 25 U.S. vendors and a smaller number of foreign sources. XYZ, which went bankrupt, has apparently ceased operations.

YORK INTERNATIONAL CORP.

(York, Pennsylvania)

Date unknown -- According to records introduced at a 1992 Senate Banking Committee hearing on U.S. export policy toward Iraq before the Kuwait invasion, York exported \$3,250,000 worth of control panels and packaged liquid coolers that were used in Iraq's nuclear-weapons program. Shipments were financed by BNL (an Italian bank).

ZETA LABORATORIES, INC.

(Formerly based in Santa Clara, California, Zeta -- now in Morgan Hill, California. After a series of sales, Zeta was purchased by Integrated Defense Technologies, Inc., of Huntsville, Alabama.)

1988 -- Provided more than \$2.2 million worth of quartz crystals and electronic assemblies for radar systems to Salah Al Din, a military-electronics firm built by French firm Thomson-CSF. Salah Al Din produced radar, electronic countermeasures, inertial-guidance components and equipment for making nuclear-weapons fuel. The equipment was sold to the Iraqi Trading Company, a front used for Iraqi military procurement. Zeta also received a letter of credit for \$1.1 million from BNL (an Italian bank) to sell an oscillator to the Iraqi Trading Company. During this period Zeta also was a contractor for the U.S. Department of Defense, deriving most of its income from those federal contracts.

Zeta is one of several companies that are now part of Integrated Defense Technologies, a developer and provider of advanced electronics and technology products to defense and intelligence industries. IDT's clients include all branches of the U.S. military. A company spokesman said he has no information regarding the Iraq transactions, which occurred under different corporate ownership.

Made in the USA, Part III: US Government Agency Listings

April 25 - May 1, 2003

CENTERS FOR DISEASE CONTROL AND PREVENTION

(Atlanta, Georgia)

1984 to 1993 -- The CDC shipped a number of "viruses, retroviruses, bacteria and fungi" to Iraq from "October 1, 1984 thru October 13, 1993," stated then-CDC director David Satcher in a 1995 letter to the Senate Committee on Banking, Housing and Urban Affairs. According to Satcher, CDC's shipments to Iraq continued two years after the first Gulf War. However, he included no information regarding the post-Gulf War I shipments. The pre-war shipments included:

1985 -- Three shipments of West Nile virus, two shipments of dengue-fever virus, one shipment of Yersinia pestis (non-virulent plague bacteria), one shipment of Bhanja virus, one shipment of Hazara virus, one shipment of Kemerovo virus, one shipment of Langat virus, one shipment of Sandfly Fever/Naples virus, one shipment of Sandfly Fever/Sicilian virus, one shipment of Sindbis virus, one shipment of Tahyna virus, one shipment of Thogoto virus, five plague-infected mouse-tissue smears and a variety of antigens and antibodies.

1985 -- Three yeast cultures of candida

1985 -- Eight vials of antigens (substances that stimulate the production of antibodies) as well as antibodies for ricketts and typhus

1986 -- Two vials of non-infectious botulinum toxoid

1988 -- A variety of teaching supplies and CDC procedures manuals

1989 -- A variety of enterococcus bacteria and one shipment of streptococcus bacteria

CENTRAL INTELLIGENCE AGENCY

(Langley, Virginia)

1982 -- President Ronald Reagan signed a National Security Council directive ordering the agency to provide Iraq with intelligence-information advice and hardware. The order was enthusiastically carried out by then-CIA Director William Casey (see Bechtel), who supported the sale of cluster bombs to Iraq. CIA also assisted in the sale of non-U.S. weapons, ammunition and vehicles to Iraq.

1984 -- Agency secretly provided Iraq with instructions on how to calibrate its mustard-gas attacks on Iranian troops.

1986 -- Agency authorized secret study documenting Iraqi use of chemical weapons.

1988 -- CIA Director William Webster acknowledged to Congress that Iraq was the largest producer of chemical weapons in the world.

DEPARTMENT OF AGRICULTURE

(Washington, D.C.)

1983 to 1990 -- Extended billions of dollars worth of loan guarantees to Iraq through the Agriculture Department's Commodity Credit Corporation. Iraq used some of these funds to buy material, equipment and technology for its chemical-weapons and ballistic-missile programs. After Iraq defaulted on some its loan obligations, the federal government agreed, in 1995, to pay \$400 million to BNL (an Italian bank) to settle claims. Iraq is liable for reimbursing the U.S. treasury, but repayment is considered unlikely.

1992 -- An Agriculture Department employee shredded documents describing department's role in obtaining \$5.5 billion in U.S. taxpayer-guaranteed loans to Iraq through BNL, an Italian bank. The shredding was witnessed by a Justice Department paralegal.

DEPARTMENT OF COMMERCE

(Washington, D.C.)

1985 to 1990 -- Approved \$1.5 billion worth of export licenses for shipments of goods with both military and civilian applications to Iraq. According to an Inspector General's report, Commerce officials later tampered with export records to disguise shipments of equipment and technology used by the Iraqi military. Five records alterations pertained to the proposed shipment of more than \$1 billion in trucks originally described as "designed for military

use."

1988 -- Department approved shipments of equipment to upgrade Iraq's Scud-missile program.

1992 -- Commerce Department inspector general admitted to Congress that department officials altered 66 export licenses for Iraq.

DEPARTMENT OF DEFENSE

(Arlington, Virginia)

1982 -- President Ronald Reagan ordered department to provide Iraq with intelligence information, advice and hardware.

1983 -- Private citizen Donald Rumsfeld (currently the secretary of defense) was dispatched to Iraq as the personal envoy of President Reagan. Met with Saddam Hussein and pledged support for regime. Rumsfeld's trip occurred as U.S. was receiving reports of chemical-weapons use by Iraq. Rumsfeld also carried with him a secret offer of help to Iraq from then-Israeli Foreign Minister Yitzhak Shamir.

During both the Reagan administration and the first Bush administration (prior to the invasion of Kuwait), the department supported export licenses transferring weapons technology and weapons materials to Iraq.

DEPARTMENT OF STATE

(Washington, D.C.)

1982 -- Department removed Iraq from list of countries sponsoring terrorism.

1983 -- Reagan Secretary of State George Shultz (See Bechtel) successfully lobbied Commerce Department to approve sale of helicopters to Iraq. State Department begins receiving reports of chemical-weapons use by Iraqi military.

1984 -- Schultz persuaded Representative Howard Berman (D-Los Angeles) to drop his bill returning Iraq to list of countries sponsoring terrorism.

1984 -- Diplomatic relations reestablished with Iraq.

1986 -- Reagan sent secret message to Saddam Hussein, advising him to step up his air war on Iran. Message delivered to Hussein through Egyptian President Hosni Mubarak by Vice President George Bush.

1988 -- At the U.N., Schultz downplayed Iraq's use of chemical weapons on Kurds.

1989 -- Department supplied visas for three Iraqi nuclear scientists to attend an international detonation conference in Portland, Oregon. This conference discussed nuclear-weapons technology and flyer-plate technology used to control the force and shape of implosive shock waves.

1989 -- Secretary of State James Baker received memo informing him that Iraq was aggressively developing chemical-, biological- and new missile-weapons programs.

1990 -- Bush administration approved \$4.8 million in sales of advanced technology to Iraq's Ministry of Industry and Military Industrialization. MIMI was responsible for Iraq's nuclear-, missile and chemical-weapons program.

NATIONAL SECURITY COUNCIL

(Washington, D.C.)

1983 to 1989 -- During this period, the NSC, usually with the State Department, successfully lobbied the Commerce Department to approve sales to Iraq of military-related items and items with dual military and civilian use, such as heavy trucks, to Iraq.

1983 -- Successfully lobbied the Commerce Department to approve the sale of 10 "civilian" Bell helicopters to Iraq in 1983. The helicopters were eventually modified and used in 1988 to spray poison gas on Iranians and possibly the Kurds.

1989 -- President George Bush signed NSC Directive 26, which established closer ties to Baghdad and provided \$1 billion in agricultural loans.

U.S. NUCLEAR WEAPONS LABORATORIES:

LAWRENCE LIVERMORE (University of California, Livermore, California)

LOS ALAMOS (University of California, Los Alamos, California)

SANDIA (Sandia National Laboratories are government-owned but operated under contract by Lockheed Martin, which is based in Fort Worth, Texas)

U.S. DEPARTMENT OF ENERGY (Washington, D.C.)

U.S. DEPARTMENT OF DEFENSE (Washington, D.C.)

1989, California -- These three labs in conjunction with the U.S. Departments of Energy and Defense organized a quadrennial international detonation conference in Portland, Oregon. There, representatives from these nuclear labs presented information on nuclear-weapons-detonation technology and flyer-plate technology used to control the force and shape of implosive shock waves. Three Iraqi nuclear scientists attended this conference from the Al Qaqaa State Establishment. Al Qaqaa supplied bomb parts for Iraq's nuclear-weapons testing.

Copyright © 2003 Jim Crogan
Copyright © 2003 *The L.A. Weekly*
Reprinted for Fair Use Only.