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Disarming Libya: Weapons of Mass Destruction

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Summary

On December 19, 2003, Libya announced it would dismantle its weapons of mass destruction (WMD) and ballistic missile programs. Since then, U.S., British, and international officials have inspected and removed or destroyed key components of those programs, and Libya has provided valuable information, particularly about foreign suppliers. Libya's WMD disarmament is a critical step towards reintegration into the world community, and a necessary but probably not sufficient prerequisite for lifting U.S. sanctions. This report will be updated as needed. See also CRS Issue Brief IB 93109, *Libya*, by Clyde Mark.

Background

On December 19, 2003, Libya announced it would dismantle its weapons of mass destruction (WMD) programs and open the country to immediate and comprehensive verification inspections. According to the Bush Administration, Libya pledged to:

- Eliminate all elements of its chemical and nuclear weapons programs;
- Declare all nuclear activities to the International Atomic Energy Agency (IAEA);
- Eliminate ballistic missiles beyond a 300-kilometer (km) range with a payload of 500 kilograms (kgs);
- Accept international inspections to ensure Libya's complete adherence to the Nuclear Nonproliferation Treaty (NPT), and sign the Additional Protocol;¹
- Eliminate all chemical weapons stocks and munitions and accede to the Chemical Weapons Convention (CWC); and

¹ The Additional Protocol, INFCIRC-540, gives the International Atomic Energy Agency (IAEA) additional access to information and sites within a country for nuclear safeguards purposes. The United States has signed but not yet ratified the protocol.

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- Allow immediate inspections and monitoring to verify all of these actions.²

Since December 2003, Libya has also agreed to abide by the Missile Technology Control Regime (MTCR) guidelines, and signed the Comprehensive Test Ban Treaty.

Libya's decision likely rested on several factors. The burden of 30 years of economic sanctions had significantly limited oil exports and stagnated the Libyan economy, helping to tilt the balance against pursuing WMD. Further, Libya's elimination of its WMD programs was a necessary condition for normalizing relations with the United States.³ The Administration has attributed Libya's decision to abandon its WMD to President Bush's national security strategy. Some officials claim that Iraq's example convinced Libya to renounce WMD; others point specifically to the interdiction of centrifuge parts (used for uranium enrichment) in October 2003.⁴ Still other observers have suggested that Libya's WMD programs were not very successful, while ending Libya's pariah status became particularly important to Col. Kaddafi. At least two accounts, however, record Libyan offers to renounce its WMD programs dating back to 1992 and 1999.⁵

Prior Assessments of WMD Programs

Despite Libya's membership in the NPT (from 1975) and the BWC (from 1982), most observers believed Libya was pursuing a range of WMD programs, albeit not entirely successfully. The Bush Administration noted in 2003 that "we have long been concerned about Libya's longstanding efforts to pursue nuclear, chemical and biological weapons and ballistic missiles."⁶ Libya continues to deny any BW program, but its chemical weapons capability (including use of CW against Chad in the 1980s and facilities at Rabta and Tarhuna) was well known. Libya's ballistic missile arsenal was comprised of Scud Bs (300-km, 700 kg payload) acquired from the former Soviet Union, a handful of North Korean Scud-Cs (600-km, 700 kg payload), and a 500-700km-range missile under development, called Al Fatah. The Al Fatah program reportedly continued

² The White House, Fact Sheet: The President's National Security Strategy to Combat WMD, Libya's Announcement, December 19, 2003.

³ "In Giving Up Arms, Libya Hopes to Gain New Economic Life," *Wall Street Journal*, February 12, 2004. See CRS Report RS21601, *Libya: PanAm 103 Settlement*. Libya proposed to compensate the families of victims of the 1988 Pan Am 103 bombing in return for lifting U.N. sanctions (\$4M), U.S. sanctions (\$4M), and removing Libya from the U.S. state sponsors of terrorism list (\$2M). U.N. sanctions were lifted in September 2003. Libya set an April 2004 deadline for the other sanctions, after which the families would only get \$1 million more, but extended this to July 2004.

⁴ Samia Amin, "Recent Developments in Libya," Carnegie Endowment for International Peace, February 10, 2004, p. 1.

⁵ See an account by Gary Hart, "My Secret Talks with Libya, and Why They Went Nowhere," *Washington Post*, January 18, 2004, and by Martin Indyk, "Was Kaddafi Scared Straight? The Record Says No," *Los Angeles Times*, March 28, 2004.

⁶ Under Secretary of State John Bolton, Testimony before House International Relations Committee, June 4, 2003.

throughout the 1990s, although hampered by international sanctions. Israeli intelligence claimed also that Libya had received 1300-km-range No Dong missiles from North Korea, but U.S. intelligence disputed this notion.⁷ A 2001 National Intelligence Council assessment stated that “Libya’s missile program depends on foreign support, without which the program eventually would grind to a halt.”⁸ Libya signed the International Code of Conduct Against Ballistic Missile Proliferation (ICOC) in November 2002.

New Evidence: Inspections

According to many reports, Libyan officials approached British officials in March 2003 with an offer to give up their WMD programs. After several months of secret negotiations, U.S. and British officials first inspected Libyan weapon sites, laboratories, and military factories in October 2003.⁹ This coincided with the interdiction in the Italian port of Taranto of a shipment ultimately bound for Libya of uranium enrichment centrifuge equipment. Initial visits revealed more extensive Libyan nuclear activities than previously thought, and significant quantities of chemical agent. Thus far, U.S. and British officials apparently have found no evidence of an offensive biological weapons program. Some observers have suggested that each of Libya’s programs suffered from shortages of parts and technical expertise as a result of years of sanctions.¹⁰

Libya has provided significant information about its nuclear, chemical, and missile programs, including data on foreign suppliers. In fact, Libya’s revelations about Pakistani scientist A.Q. Khan’s nuclear black market dealings have aided IAEA inspections of Iran’s nuclear program and helped prompt Pakistan to investigate Khan.

Nuclear Program.¹¹ Many observers over the years discounted Libya’s nuclear weapons program because of its failure to procure key components and lack of indigenous resources. Yet, Libya’s declarations revealed that A.Q. Khan seemed to have solved the procurement problem, if not the problem of expertise.¹² In 1997, Libya acquired 20 pre-assembled P-1 centrifuges and the components for another 200. Libya constructed three different enrichment cascades, but only the smallest (using 9 centrifuges) was completely assembled by 2002. In 2000, Libya received 2 centrifuges of a more advanced design (P-2 using maraging steel) and placed an order for 10,000 of those. Assistance on centrifuge enrichment reportedly came from A.Q. Khan, former head of Pakistan’s enrichment

⁷ Joseph Bermudez, “Ballistic Missile Development in Libya,” *Jane’s Intelligence Review*, January 2003, pp 27-29.

⁸ Central Intelligence Agency, National Intelligence Council, *Foreign Missile Developments and the Ballistic Missile Threat Through 2015*, December 2001. p. 12.

⁹ “Secret Diplomacy Won Libyan Pledge on Arms,” *New York Times*, December 21, 2003.

¹⁰ Ibid.

¹¹ This section draws on a report by the International Atomic Energy Agency on Libya’s nuclear program. See GOV/2004/12, “Implementation of the NPT Safeguards Agreement of the Socialist People’s Libyan Arab Jamahiriya,” February 20, 2004.

¹² Libyan officials claim they did not even assess the credibility of the nuclear weapons design they received because they had no national personnel competent to evaluate the data. GOV/2004/12, p. 6.

facility. Khan reportedly also provided Libya with an actual nuclear weapons design. The nuclear weapons design information was handed over to IAEA inspectors in December 2003 and sealed on-site. According to one source, the design closely resembles a 1960s-vintage Chinese nuclear warhead.¹³ One report suggested that such a warhead would not fit on Libya's SCUD-C missiles and that key parts of the weapons design were missing.¹⁴ Libya also dabbled in separating minute quantities of plutonium between 1984 and 1990, apparently before it embarked on uranium enrichment.

Chemical Weapons Program. Libya declared to the Organization for the Prohibition of Chemical Weapons (OPCW) on March 5 that it had produced approximately 23 tons of mustard agent in one chemical weapons production facility (Rabta) between 1980 and 1990 and stored those materials in two storage sites. Libya also declared thousands of unfilled munitions.¹⁵

Ballistic Missile Program. Libya pledged to eliminate all ballistic missiles with a range of 300 kilometers and a payload of 500 kilograms or greater. So far, Libya has relinquished 5 North Korean Scud-C missiles.¹⁶ Libya reportedly will convert its Scud-B arsenal, estimated at between 80 and a few hundred, into shorter-range, defensive purposes missiles and end military trade with North Korea.¹⁷ The details of monitoring such irreversible conversions are yet to be worked out. There is no information as yet on the status of the Al Fatah program. Libya's missile pledge will leave Libya primarily with shorter-range cruise missiles — SS-N-2c Styx, Otomat Mk2, and Exocet anti-ship cruise missiles.

Eliminating Libyan WMD¹⁸

The United States aimed to eliminate the most sensitive aspects of Libya's WMD and missile programs first. On January 22, the nuclear weapons design information was sent to the United States, and on January 26, U.S. officials airlifted about 55,000 pounds of documents and components from Libya's nuclear and ballistic missile programs to the United States. Nuclear components included several containers of uranium hexafluoride (used as feedstock for enrichment); 2 P-2 centrifuges from Pakistan's Khan Research Laboratories and additional centrifuge parts, equipment, and documentation.

¹³ "Warhead Blueprints Link Libya Project to Pakistan Figure," *New York Times*, February 4, 2004, p. 1.

¹⁴ "Libya Was Far From Building Nuclear Bomb," *Wall Street Journal*, February 23, 2004.

¹⁵ "Libya Submits Initial Chemical Weapons Declaration," OPCW Press Release, March 5, 2004, [http://www.opcw.org/html/global/press_releases/2k4/PR8_2004prt.html].

¹⁶ Paula A. DeSutter, Assistant Secretary of State for Verification and Compliance, Testimony before House International Relations Committee, March 10, 2004, "Weapons of Mass Destruction, Terrorism, Human Rights and the Future of U.S.-Libyan Relations," p. 4.

¹⁷ "U.S. Says Libya Will Convert Missiles To Defensive Weapons," *New York Times*, April 11, 2004.

¹⁸ This section draws on March 10, 2004 testimony of Paula A. DeSutter, Assistant Secretary of State for Verification and Compliance, see fn 16.

A second elimination phase began in mid-February. The OPCW supervised the on-site destruction of more than 3,200 unfilled shells for CW. Destroying the mustard agent, however, is a bit more complicated, and will require a destruction plan and a special facility for destruction. Until then, the OPCW will continue to inspect and monitor Libya's chemical weapons facilities. Under the CWC, Libya must completely destroy its chemical weapons and production capacity by April 29, 2007.¹⁹

In March 2004, over 1,000 tons of additional centrifuge parts and MTCR-class missile parts reportedly were shipped from Libya, including five Scud-C missiles, partial missiles, missile launchers, and related equipment. Russia also removed 13 kg of fresh, 80% highly enriched uranium it had supplied in the 1980s to the 10-megawatt research reactor at Tajura, which the U.S. plans to help convert to use low-enriched uranium fuel.

Role of International Organizations

Under Libya's nuclear safeguards agreement, IAEA inspectors visited Libya to confirm its declarations beginning in December. The OPCW visited Libya first in February 2004, after Libya acceded to the CWC. A key implementation issue has been assigning responsibility for verification, destruction, and removal across WMD programs. The U.S. and UK decided to dismantle and destroy key aspects of the nuclear program, leaving IAEA inspectors to verify the process.²⁰ The OPCW, reflecting the terms of the CWC, will oversee the destruction and dismantlement of Libya's CW program, while Libya performs (and pays for) the actual destruction. In the ballistic missile area, U.S. and UK officials have assumed responsibility for disarmament.

Issues for Congress

Four Congressional delegations visited Libya between January and March, indicating a high level of interest in moving forward.²¹ According to administration officials, next steps will include further destruction and removal of nuclear and missile items, probing the role of A.Q. Khan in Libya's nuclear program, examining Libya's biological program, and "redirecting" Libyan WMD personnel.²² The administration has spent \$2.5 million thus far in helping Libya disarm. In a Senate Foreign Relations hearing on February 26, 2004 on Libya, Senator Richard Lugar cautioned that using Nunn-Lugar funds would require lifting sanctions on Libya. In addition to the broader issue of when and how to lift sanctions, Congress may wish to consider whether to provide additional assistance to Libyan disarmament, and if so, how.

¹⁹ "Libya Submits Initial Chemical Weapons Declaration," Organization for the Prohibition of Chemical Weapons (OPCW) Press Release, The Hague, The Netherlands, March 5, 2004, [http://www.opcw.org/html/global/press_releases/2k4/PR8_2004prt.html].

²⁰ Mark Huband, "Nuclear Watchdog Agrees Role in Libya," *Financial Times*, January 20, 2004.

²¹ Reps. Tom Lantos and Curt Weldon visited Libya in January 2004; and Rep. Curt Weldon led another delegation in March 2004. Sen. Joe Biden also visited Libya in March 2004.

²² Testimony of Paula A. DeSutter, pp.1- 5.

Sanctions. Libya has been subject to one of the strictest U.S. sanctions regimes in existence, as a result of Libya's support of international terrorism.²³ Most of the sanctions could be overturned by a new executive order, or by removing Libya from the state sponsors of terrorism list. The administration appears to be taking a step-by-step approach. On January 5, 2004, President Bush notified Congress that he was continuing the national emergency with respect to Libya, stating that "The crisis between the United States and Libya that led to the declaration of a national emergency on January 7, 1986, has not been fully resolved, although there have been some positive developments," and that Libya's "declaration of December 19, 2003, must be followed by verification of concrete steps." U.S. officials since then have repeatedly stressed Libya's "outstanding" disarmament cooperation. On February 26, 2004, the Administration lifted five types of U.S. sanctions on Libya.²⁴ The same day those bans were lifted, Senator Lugar stated that the United States could not ignore Libya's lack of democracy, development of WMD, past support for terrorism, and destabilizing activities in North Africa and the Middle East. Nonetheless, Senator Lugar noted that Congress may wish to consider the effectiveness of each of the sanctions policies and how to assess Libya's cooperation in both WMD disarmament and in counterterrorism.

Possible Assistance to Libya for WMD Dismantlement. President Bush announced seven new initiatives to combat WMD on February 11, 2004, in a speech at the National Defense University, including expanding cooperative threat reduction programs to states outside the former Soviet Union. One example he gave was to use CTR to help redirect former Libyan WMD scientists. As noted above, the administration is currently using \$2.5 million from the Nonproliferation and Disarmament Fund (NDF) account to help Libya disarm. As Senator Lugar has noted, however, NDF "does not have the size, scope, or experience to do dismantlement operations, to employ nuclear scientists, or undertake longer-term nonproliferation efforts."²⁵ One possibility is to use CTR funds to destroy Libya's chemical weapons. If the administration seeks to use unobligated Cooperative Threat Reduction (CTR) funds for Libyan scientists, Congress may wish to consider all the relevant questions that are associated with expanding cooperative threat reduction.²⁶

²³ See Kenneth Katzman, *U.S.-Libyan Relations: An Analytic Compendium of US Policies, Laws & Regulations*, The Atlantic Council, August 2003. The United States cut off military sales in 1979; banned travel and oil imports from Libya in 1982; and banned commercial and financial transactions in 1986. Also banned were direct or indirect foreign aid or aid to international organizations that might benefit Libya, Export-Import Bank transactions, third country transactions with Libya, and liquidating or transferring Libyan property in the United States.

²⁴ CRS Issue Brief IB93109, *Libya*, by Clyde Mark. On February 26, 2004, the White House announced that it would: lift the ban on using U.S. passports in Libya, permit U.S. citizen expenditures inside Libya, allow U.S. companies to negotiate business contracts with Libya, invite Libya to open a diplomatic interests section in Washington, and begin exploring joint humanitarian projects with Libya.

²⁵ Senator Richard Lugar, "Opening Statement for Hearing on Libya — Next Steps in U.S. Bilateral Relations," Senate Foreign Relations Committee Hearing, February 26, 2004.

²⁶ See CRS Report RL32359, *Globalizing Cooperative Threat Reduction: A Survey of Options*, April 15, 2004.