



Cluster Munitions in the Middle East and North Africa

Prepared by Human Rights Watch

Globally, 34 countries are known to have produced over 210 different types of air-dropped and surface-launched cluster munitions including projectiles, bombs, rockets, missiles, and dispensers. Existing stockpiled cluster munitions contain billions of individual submunitions. Cluster munitions are stockpiled by at least 76 states and have been used in at least 31 countries and disputed territories. According to available information, at least 13 countries have transferred over 50 types of cluster munitions to at least 60 other countries. In the Middle East-North Africa (MENA) region:

- **Egypt, Iran, Iraq, and Israel** have produced cluster munitions.
- **Egypt and Israel** have exported cluster munitions.
- **Algeria, Bahrain, Egypt, Iran, Iraq, Israel, Jordan, Kuwait, Libya, Morocco, Oman, Saudi Arabia, Syria, United Arab Emirates (UAE), and Yemen** stockpile cluster munitions.
- Cluster munitions have been used in **Iraq, Israel, Kuwait, Lebanon, Saudi Arabia, Syria, and the Western Sahara**.

Use of Cluster Munitions in the Region

The region has seen extensive use of the weapon. Known instances of use include:

- Israel used air-dropped cluster munitions against non-state armed group (NSAG) training camps near Damascus, **Syria** in 1973.
- Moroccan forces used air-dropped and artillery-delivered cluster munitions against an NSAG in the **Western Sahara** sometime between 1975 and 1988.
- Israel used air-dropped cluster munitions against targets in **Lebanon** in 1978 and against Syrian forces and NSAG in Lebanon in 1982.
- US aircraft dropped 12 CBU-59 and 28 Rockeye bombs against Syrian air defense units near Beirut in **Lebanon** in December 1983.

- Saudi Arabian and US forces used air-dropped and artillery-delivered cluster munitions against Iraqi forces during the battle of Khafji in **Saudi Arabia** in January 1991.
- During the Gulf War in 1991, the US, France and the UK dropped 61,000 cluster bombs containing some 20 million submunitions in **Iraq** and **Kuwait**. The number of cluster munitions delivered by surface-launched artillery and rocket systems during the Gulf War is not known, but an estimated 30 million or more dual purpose improved conventional munitions (DPICM) submunitions were used in the conflict.
- The US and UK used nearly 13,000 cluster munitions containing an estimated 1.8 to 2 million submunitions in the three weeks of major combat in **Iraq** in 2003.
- Israeli forces used surface-launched and air-dropped cluster munitions against Hezbollah forces in **Lebanon** in 2006. The UN estimates that Israel used up to 4 million submunitions.
- Hezbollah fired more than 100 Chinese-produced Type-81 122mm cluster munition rockets into northern **Israel** in 2006.

Production and Transfer of Cluster Munitions by MENA Countries

The Helipolis Company for Chemical Industries in **Egypt** produces projectiles for 122mm, 130mm, and 152mm caliber artillery pieces which contain M42D DPICM submunitions. The SAKR Factory for Developed Industries produces 122mm surface-launched rockets containing 72 submunitions, some of which were exported to Iraq. Egypt is also a significant importer of cluster munitions, primarily from the US, which include artillery projectiles, aircraft bombs, and surface-fired multiple launch rockets.

Media reports indicate that **Iran** tested in November 2006 a version of the Shahab-2 missile capable of delivering 1,400 bomblets.¹

Prior to 2003 **Iraq** was active in acquiring surface-to-surface rockets with submunitions. This includes joint development of the M87 Orkan (known in Iraq as Ababil) with Yugoslavia.² It acquired ASTROS rockets from Brazil.³ Iraq also produced two types of cluster bombs called the NAAMAN-250 and NAAMAN-500.⁴

Israel is a major producer and exporter of cluster munitions, primarily artillery projectiles and rockets containing the M85 DPICM submunition equipped with a back-up pyrotechnic self-destruct fuze. Israel Military Industries (IMI) produces, license-produces, and exports cluster munitions including artillery projectiles (105mm, 122mm, 130mm, 152mm, 155mm, 175mm, 203mm), mortar bombs (120mm), and rockets (EXTRA, GRADLAR, LAR-160). IMI has reportedly produced over 60 million M85 DPICM submunitions.⁵ IMI concluded licensing agreements in 2004 with companies in India (Indian Ordnance Factories) and the United States (Alliant Techsystems) to produce DPICMs. Companies in Argentina (CITEFA), Germany (Rheinmetall), Romania (Romtecnica), and Switzerland (RAUG) have also assembled or produced these submunitions under license. Israel has also imported M26 rockets from the US for its MLRS launchers.⁶ Several types of air-dropped cluster munitions were also produced by Israel. The Rafael Corporation is credited with producing the ATAP-300, ATAP-500, ATAP-1000 RAM, TAL-1, and TAL-2 cluster bombs as well as the BARAD Helicopter Submunition Dispenser.⁷

While the number of producing countries in the region is relatively small, transfers of cluster munitions to countries in the region are significant. For example, seven countries have received cluster munitions of Soviet or Russian manufacture: Algeria, Egypt, Iran, Kuwait, Libya, Syria, and Yemen. The US is also a major supplier of cluster munitions to MENA countries and has supplied eight countries, including: Bahrain, Egypt, Israel, Jordan, Morocco, Oman, Saudi Arabia, and the UAE. Other countries that have transferred cluster munitions to countries in the MENA region include Brazil, Chile, South Africa, and the United Kingdom. Additionally, Chinese-produced 122mm cluster munition rockets were used by Hezbollah during its conflict with Israel in 2006.

Stockpiling of Cluster Munitions

At least 15 countries in the region are known to currently stockpile cluster munitions as detailed in the following table:

Country	Type Stockpiled	Country	Type Stockpiled
Algeria	KMG-U Dispenser	Jordan	M483A1 projectile M509A1 projectile Rockeye bomb
Bahrain	M483A1 projectile M509A1 projectile M26 rocket M26A1 rocket ATACMS missile	Kuwait	9M55K1 rocket
Egypt	CBU-87 bomb M26 rocket	Libya	KMG-U dispenser RBK bomb
		Morocco	CBU-52 bomb CBU-58 bomb

Country	Type Stockpiled
Egypt	M26A1 rocket M42 projectile Rockeye bomb SAKR-18 rocket SAKR-36 rocket
Iran	Shahab-2 missile KMG-U dispenser PROSAB-250 bomb BL-755 bomb
Iraq	Ababil 50 rocket ASTROS rocket CB-470 bomb FIROS 25 rocket NAAMAN bomb SAKR 36 rocket Type 81 rocket
Israel	M395 projectile M396 projectile M483A1 projectile LAR-160 rocket M26 rocket MAR-350 rocket MAR-160 rocket ATAP series bomb CBU-58 bomb Rockeye bomb TAL series bomb

Country	Type Stockpiled
Morocco	M483A1 projectile Rockeye bomb
Oman	BL-755 bomb CBU-87 bomb CBU-97 bomb Rockeye bomb
Saudi Arabia	ASTROS rocket BL-755 bomb CBU-58 bomb CBU-87 bomb
Syria	KMG-U dispenser RBK bomb
UAE	CBU-87 bomb BL-755 bomb
Yemen	KMG-U dispenser 9M27K rocket

Participation by the Middle East-North Africa Region in the Oslo Process

The growing number of countries participating in the Oslo Process from the MENA region is an encouraging development. Countries from the region participating in major international conferences held in Oslo, Lima, Vienna, and Wellington are detailed below.

- Egypt, Jordan, and Lebanon endorsed the declaration made at the Oslo Conference on Cluster Munitions on 22-23 February 2007, which committed them to “Conclude by 2008 a legally binding international instrument that prohibits the use and stockpiling of cluster munitions that cause unacceptable harm to civilians and secure adequate provision of care and rehabilitation to survivors and clearance of contaminated areas.”
- Three MENA countries participated in the Lima Conference on Cluster Munitions in May 2007: Egypt, Lebanon, and Yemen.
- Ten MENA countries participated in the Vienna Conference on Cluster Munitions in December 2007: Algeria, Egypt, Iraq, Jordan, Kuwait, Lebanon, Morocco, Oman, Qatar, and Saudi Arabia.
- Five MENA countries have subscribed so far to the Wellington Declaration (as of 6 May 2008): Algeria, Bahrain, Kuwait, Lebanon, and Morocco. Subscribing to the

Wellington Declaration affirms the country's "objective of concluding the negotiation of such an instrument prohibiting cluster munitions that cause unacceptable harm to civilians in Dublin in May 2008" and is a prerequisite to full participation in the negotiations.

**Countries from the MENA Region that have not subscribed to the
Wellington Declaration (as of 6 May 2008)**

Egypt, Iran, Iraq, Israel, Jordan, Libya, Oman,
Qatar, Saudi Arabia, Syria, Tunisia, UAE, and Yemen.

¹ Nasser Karimi, "Iran Test-Fires New Longer-Range Missile," Associated Press, 2 November 2006.

² Jane's Ammunition Handbook, p. 641.

³ Jonathan Beaty and S.C. Gwynne, "Scandals: Not Just a Bank You can get anything you want through B.C.C.I. -- guns, planes, even nuclear-weapons technology," Time Magazine, 2 September 1991.

⁴ Jane's Air Launched Weapons, Issue 24, July 1996.

⁵ Presentation to the 48th Annual Fuze Conference by Mike Hiebel, Alliant TechSystems, and Ilan Glickman, Israel Military Industries, "Self-Destruct Fuze for M864 Projectiles and MLRS Rockets," Charlotte, North Carolina, 27-28 April 2004, Slide 9, <http://www.dtic.mil/ndia/2004fuze/hiebel.pdf> (accessed 28 November 2006).

⁶ Information on surface-launched cluster munitions produced and possessed by Israel is taken primarily from the IMI corporate website, <http://qa-imi.gsites.co.il/division.aspx?FolderID=75> (accessed 28 November 2006). It has been supplemented with information from Jane's Ammunition Handbook and US Defense Intelligence Agency, "Improved Conventional Munitions and Selected Controlled-Fragmentation Munitions (Current and Projected) DST-1160S-020-90."

⁷ Jane's Air Launched Weapons, pp. 370-380.