



Overview of Cluster Munitions in Eastern Europe, the Caucasus, and Central Asia

Prepared by Human Rights Watch

The disposition of cluster munitions in Eastern Europe, the Caucasus, and Central Asia changed dramatically with the break up of the Soviet Union (USSR), the dissolution of the Warsaw Pact, and the break-up of the Socialist Federal Republic of Yugoslavia. Cluster munitions were used during some of the armed conflicts around these events. Very importantly, substantial stockpiles and production capacities were inherited by the host of successor states that resulted from these political transformations.

This fact sheet is a first attempt to document the situation among the 28 states in the area with respect to production, stockpiling, use, and proliferation of cluster munitions using the best available public information. However, there is still much that is unknown or uncertain regarding cluster munitions in these states, and the **CMC welcomes comments or corrections**.

States from this region have featured prominently in efforts to prohibit cluster munitions.¹ A total of 15 states from this area agreed to adopt the Convention on Cluster Munitions (CCM) in Dublin on 30 May 2008, as detailed in the following table:

Albania, Bosnia & Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Kyrgyzstan, Lithuania, FYR Macedonia, Moldova, Montenegro, Serbia, Slovakia, Slovenia.
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States from Eastern Europe, the Caucasus,
and Central Asia that Agreed to Adopt the CCM, May 2008

In addition, **Armenia, Azerbaijan, Georgia, Kazakhstan, Latvia, Poland, Romania, Tajikistan, Turkmenistan, and Ukraine** participated in at least one meeting of the Oslo Process (either in Oslo, Lima, Vienna, or Wellington), signaling their interest in the objective. It remains to be seen if they will sign in December.

It is interesting to note the diversity of experience among these states that agreed to adopt the CCM:

- Cluster munitions have been used in **Albania, Bosnia & Herzegovina, Croatia, Montenegro, and Serbia.**
- **Bosnia & Herzegovina, Serbia, and Slovakia** are among the 34 countries known to have produced cluster munitions. **Bulgaria**, previously identified as a producer, claims to have never produced any type of cluster munition.
- **Bosnia & Herzegovina, Bulgaria, Croatia, Czech Republic, Hungary, Moldova, Montenegro, Serbia, and Slovakia** are among the at least 77 countries that have stockpiled cluster munitions.

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 have been stockpiled by at least 77 states and have been used in at least 31 countries or disputed territories. According to available information, at least 13 countries have transferred over 50 types of cluster munitions to at least 60 other countries.

Timeline of Cluster Munition Use in Eastern Europe, the Caucasus, and Central Asia

A total of ten states in Eastern Europe, the Caucasus, and Central Asia are contaminated to some degree with cluster munition remnants. Additionally, abandoned stockpiles of cluster munitions have been found in **Azerbaijan**. The majority of this use occurred in the 1990s. The cluster munitions used were produced in the former Yugoslavia, the former USSR, the UK, and the US.

Reports of use of cluster munitions include:

Nagorno-Karabakh and Azerbaijan	Submunition contamination has been identified in at least 162 locations in Nagorno-Karabakh. Submunition types cleared by deminers include PTAB-1, ShOAB-0.5, and AO-2.5. There are also reports of contamination in other parts of occupied Azerbaijan, adjacent to Nagorno-Karabakh.
Bosnia & Herzegovina	Forces of Yugoslavia and Non-State Armed Groups (NSAG) used cluster munitions during 1992-1995 civil war. NATO aircraft dropped two CBU-87 bombs.
Tajikistan	ShOAB and AO-2.5RT submunitions have been found in the town of Gharm in the Rasht Valley, used by unknown forces during 1992-1997 civil war.
Chechnya	Russian forces used cluster munitions against NSAG in 1994-1996.
Croatia	An NSAG used Orkan M-87 multiple rocket launchers to attack Zagreb on 2-3 May 1995. Additionally, the Croatian government claimed that Serb forces used BL-755 bombs in Sisak, Kutina, and along the Kupa River.
Albania	Yugoslav forces used rocket-delivered cluster munitions in disputed border areas in 1998-1999, and NATO forces carried out six aerial cluster munition strikes.
Yugoslavia (including Serbia, Montenegro, and Kosovo)	The US, UK, and Netherlands dropped an estimated 1,765 cluster bombs containing approximately 295,000 submunitions in 1999.
Georgia	Russian aircraft dropped cluster bombs containing PTAB-2.5M submunitions during attacks on the village of Ruisi and the town of Gori on 12 August 2008. Georgia used GRADLAR 160 multiple launch rocket system with MK4 rockets with M85 submunitions to attack Russian forces at the Roki tunnel. Other types of submunitions identified in Georgia include the air-dropped AO-2.5RTM and a rocket delivered type.

Locations and Details of Known Cluster Munition Use in
Eastern Europe, the Caucasus, and Central Asia

Stockpiling of Cluster Munitions by States in Eastern Europe, the Caucasus, and Central Asia

At least 19 states in the area are known to stockpile cluster munitions. This number has grown as more states have become engaged in the Oslo Process and new information has become available. **Montenegro** pledged to destroy its stockpile during the Belgrade Conference of Countries Affected by Cluster Munitions in October 2007.

States in the area that stockpile cluster munitions include:

Country	Type stockpiled
Azerbaijan	RBK bomb
Belarus	9M27K rocket
	9M55K rocket
	RBK bomb
Bosnia & Herzegovina	KPT-120 dispenser
	Orkan rocket
	3-O-23 projectile
Bulgaria	RBK-250 bomb
	RBK-500 bomb
Croatia	KMG-U dispenser
	Orkan rocket
	RBK bomb
Czech Republic	KMG-U dispenser
	Nb-122 JROF rocket
	RBK bomb
	Trnovnik projectile
Georgia ²	KMG-U dispenser
	Mk.-4 LAR-160 rocket
	RBK bomb
Hungary	KMG-U dispenser
	RBK bomb
Kazakhstan	9M27K rocket
	RBK bomb
Moldova	9M55K rocket
Montenegro	BL-755 bomb
Poland	CBU-87 bomb
	KMG-U dispenser
	RBK bomb
	ZK-300 bomb
	9M218 rocket
Romania	CG-540 projectile
	CG-540ER projectile
	CL-250 bomb
	KMG-U dispenser
	Mk.-4 LAR-160 rocket
	RBK bomb

Country	Type stockpiled
Russia	3-O-23 projectile
	3-O-13 projectile
	3-O-14 projectile
	9M218 rocket
	9M217 rocket
	9M27K rocket
	9M55K rocket
	9M55K1 rocket
	9M55K5 rocket
	KMG-U dispenser
RBK bomb	
Serbia	BL-755 bomb
	KPT-150 bomb
	Orkan rocket
	RAB-120 bomb
	3-O-14 projectile
	3-O-23 projectile
Slovakia	AGAT/JRKK-G rocket
	Trnovnik projectile
Turkmenistan	9M27K rocket
	9M55K rocket
Ukraine	KMG-U dispenser
	RBK bomb
	9M27K rocket
	9M55K rocket
Uzbekistan	KMG-U dispenser
	9M27K rocket

Types of Cluster Munitions Stockpiled by States in Eastern Europe, the Caucasus, and Central Asia

Production and Proliferation of Cluster Munitions in Eastern Europe, the Caucasus, and Central Asia

Russia, and historically the USSR, is a major producer and exporter of cluster munitions. It is thought to have a massive stockpile of cluster munitions containing hundreds of millions of submunitions. Cluster munitions of Russian/Soviet origin are reported to be in the stockpiles of at least 29 other countries.³

The following Russian companies are associated with the production of cluster munitions: Bazalt State Research and Production Enterprise (air-dropped bombs), Mechanical Engineering Research Institute (120mm, 152mm, 203mm artillery projectiles), and Splav State Research and Production Enterprise (122mm, 220mm, 300mm rockets).

State owned factories in **Bosnia & Herzegovina** inherited the capacity to produce cluster munitions during the breakup of the Socialist Federal Republic of Yugoslavia, including the capacity to produce KB-series submunitions and integrate them into carrier munitions like artillery projectiles and rockets. While it has agreed to adopt the CCM and has a unilateral moratorium on the use of cluster munitions in place, the current disposition of existing production capacity and components in Bosnia & Herzegovina is unclear.

According to Jane's Information Group, the Vazov Engineering Plants in **Bulgaria** were associated with the production of 122mm rockets, which includes a variant that contains submunitions (with 15 DPICM grenades).⁴ In response to the listing of Bulgaria as a state that has produced cluster munitions, the Ministry of Foreign Affairs stated, "Bulgaria does not and has not produced any type of cluster munitions." In addition, "There are limited amounts of cluster munitions of the type RBK-250 and RBK-500 which are currently held by the Bulgarian Armed Forces."⁵ On 13 February 2008 the Bulgarian Council of Ministers adopted a decision imposing a moratorium on the use of cluster munitions currently held by the Bulgarian Armed Forces.

In 2003, **Moldova** reported that it possessed 11 220mm *Uragan* multiple launch rocket systems.⁶ It reported the transfer of 860 missiles for this launch system with a submunition warhead (each containing 30 high-explosive submunitions) to Guinea in 2000.⁷ It also exported 13 *Uragan* launch systems to Yemen in 1994.⁸

Poland's land forces are equipped with domestically produced 122mm artillery rockets for BM-21 and RM-70/85 multiple launch rocket systems. Each rocket contains 42 GKO DPICM submunitions. Land forces also possess 98mm mortar bombs, each containing 12 GKO DPICM submunitions. The GKO DPICM submunition is equipped with a backup self-destruct fuze.⁹ The Polish company *Tlocznia Metali Pressta Spolka Akcynjna* manufactures 122mm rockets.¹⁰ Additionally, the company *Dezamet* produced the ZK-300 Kisajno cluster bomb containing 315 LBOK-1 fragmentation bomblets.¹¹

In **Romania**, the company Romarm produces two types of 152mm DPICM artillery projectiles called the CG-540 and CG-540 ER, which contain GAA-001 bomblets. This is reported to be a joint production and marketing venture with Israel Military Industries. The GAA-001 bomblet is described as identical to the Israeli M85 and is produced by the Romanian company Aerotech SA.¹² Another company, Aerostar SA, produces the LAR-160 multiple launch rocket system, which uses the MK4 rocket that contains 104 M85 submunitions.¹³ The company ROMAIR is reported to have developed and produced the CL-250 cluster bomb, which is described as similar in appearance to the RBK-250. It is reported to carry BAAT-10 antitank bomblets and BF-10T antipersonnel bomblets.¹⁴

Serbia also inherited the production and marketing capabilities of the Socialist Federal Republic of Yugoslavia. The company Yugoimport SDPR is associated with the production of 122mm and 155mm DPICM artillery projectiles and Orkan surface-to-surface rockets. The types of submunitions carried in these cluster munitions are the KB-1 and KB-2 DPICM. Yugoslavia was the first non-Western country to produce and export DPICM.¹⁵

According to the Jane's Information Group, "at the 1991 Paris Air Show it became known that the Yugoslav Air Force was in possession of several bomblets of various types and at least one cluster bomb and cluster bomb unit. Some bombs were thought to have been bought direct from the USSR, and it is believed that others were manufactured under license or even designed by the Federal Directorate of Supply and Procurement (SDPR) in Belgrade, now Serbia."¹⁶ The designations of the cluster bombs are RAB-120 and KPT-150.

The company *Konstrukta* Defense in **Slovakia** produces 152mm artillery projectiles and 122mm surface-to-surface rockets with DPICM submunition payloads.¹⁷

¹ Participation of states from Eastern Europe, the Caucasus, and Central Asia in the Oslo Process, February 2007-April 2008:

- Bosnia and Herzegovina, Croatia, Czech Republic, Hungary, Latvia, Lithuania, Serbia, Slovakia, and Slovenia 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.”
- 10 countries participated in the Lima Conference on Cluster Munitions in May 2007: Albania, Bosnia and Herzegovina, Croatia, Czech Republic, Estonia, Hungary, Lithuania, Poland, Serbia, and Slovakia.
- 24 countries participated in the Vienna Conference on Cluster Munitions in December 2007: Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Georgia, Hungary, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, FYR Macedonia, Montenegro, Poland, Romania, Serbia, Slovakia, Slovenia, Tajikistan, Turkmenistan, and Ukraine.
- 16 countries subscribed to the Wellington Declaration: Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Kyrgyzstan, Lithuania, FYR Macedonia, Moldova, Montenegro, Serbia, Slovakia, Slovenia, and Tajikistan. Subscribing to the Wellington Declaration affirmed 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.”

² Georgia only acknowledges possessing the MK4 LAR-160 rocket, which contains 104 M85 submunitions; see “Georgian Ministry of Defence's Response to the Human Rights Watch Inquire about the Usage of M85 Bomblets,” 1 September 2008, at: <http://www.mod.gov.ge/i.php?l=E&m=11&sm=3&st=10&id=1046> (accessed 15 September 2008).

³ Known recipients of Russian/Soviet cluster munitions include Algeria, Angola, Azerbaijan, Belarus, Bulgaria, Croatia, Cuba, Egypt, Georgia, Guinea Bissau, Hungary, India, Iran, Iraq, Kazakhstan, North Korea, Kuwait, Libya, Moldova, Mongolia, Peru, Poland, Romania, Slovakia, Sudan, Syria, Uganda, Ukraine, and Yemen.

⁴ *Jane's Ammunition Handbook 2001-2002*, Terry J. Gander and Charles Q Cutshaw, eds. (Surrey, UK: Jane's Information Group Limited, 2001), p. 625.

⁵ Email to the Cluster Munition Coalition from Lachezara Stoeva, Chief Expert, Arms Control and International Security Department, NATO and International Security Directorate, Ministry of Foreign Affairs, 17 May 2008.

⁶ Submission by the Republic of Moldova, UN Register of Conventional Arms, Report for Calendar Year 2002, 1 July 2003.

⁷ Submission by the Republic of Moldova, UN Register of Conventional Arms, Report for Calendar Year 2000, 30 May 2001.

⁸ Submission by the Republic of Moldova, UN Register of Conventional Arms, Report for Calendar Year 1994, 28 April 1995.

⁹ Communication from the Polish Ministry of National Defense, to Pax Christi Netherlands, 14 February 2005. The information was provided to Pax Christi with the proviso that the “content of the paper does not necessarily reflect the official position of Poland.”

¹⁰ *Jane's Ammunition Handbook 2001-2002*, p. 626.

¹¹ *Jane's Air Launched Weapons*, Robert Hewson, ed. (Surrey, UK: Jane's Information Group Limited, 2004), p. 391.

¹² *Jane's Ammunition Handbook 2001-2002*, p. 322.

¹³ *Jane's Ammunition Handbook 2007-2008*, Leland S. Ness and Anthony G. Williams (eds.), (Surrey, UK: Jane's Information Group Limited, 2007), p. 714.

¹⁴ *Jane's Air Launched Weapons*, p. 290.

¹⁵ US Defense Intelligence Agency, “Improved Conventional Munitions and Selected Controlled-Fragmentation Munitions (Current and Projected) DST-1160S-020-90.”

¹⁶ *Jane's Air Launched Weapons*, p. 291.

¹⁷ *Jane's Ammunition Handbook 2001-2002*, pp. 321, 627.