

**The Production and Promotion of 120mm munitions containing CS:  
A Briefing Note for CWC States Parties attending CSP-15<sup>i</sup>  
29<sup>th</sup> November 2010**

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## Introduction

1. The use of riot control agents (RCAs), such as 2-chlorobenzalmalononitrile (CS), as a method of warfare is prohibited under the 1997 Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction (CWC). Such RCAs are, however, allowed to be used for law enforcement including domestic riot control.



**MKEK Tactical CS 120mm mortar round, photographed on display at IDEF 2005 in Ankara, Turkey, 27<sup>th</sup> – 30<sup>th</sup> September 2005**

(Photo: © Robin Ballantyne, Omega Research Foundation).

2. In November 2003, *Jane's Defence Weekly* reported that the Turkish (State-Owned) arms manufacturer, Makina ve Kimya Endustrisi Kurumu (MKEK)<sup>ii</sup> had developed a 120 mm mortar round - the CS MKE MOD 251 - filled with 2-chlorobenzalmalononitrile (CS).<sup>iii</sup>
3. The CS MKE MOD 251 mortar round weighs 17.34 kg and has a maximum range of 8,132 metres.<sup>iv</sup> According to the 2009-2010 edition of *Janes Ammunition Handbook*, the family of "MKEK 120 mm mortar bombs are licence-produced TDA designs".<sup>v</sup>
4. According to *Jane's Defence Weekly*, this munition is intended for use in the trailer mounted HY-12 120 mm rifled mortar, which has been in service with the Turkish Army.<sup>vi</sup> Consequently it would appear that the CS munition and delivery system have been developed primarily to be deployed for use by the Turkish Army rather than for use by law enforcement agencies. Concerns about the Turkish development and deployment of CS munitions and delivery mechanisms are exacerbated by the reported use of CS cartridges by the Turkish military in counter-insurgency operations against Kurdish armed combatants in 1999.<sup>vii</sup>

## Promotion and Marketing of MKEK 120mm CS mortar round

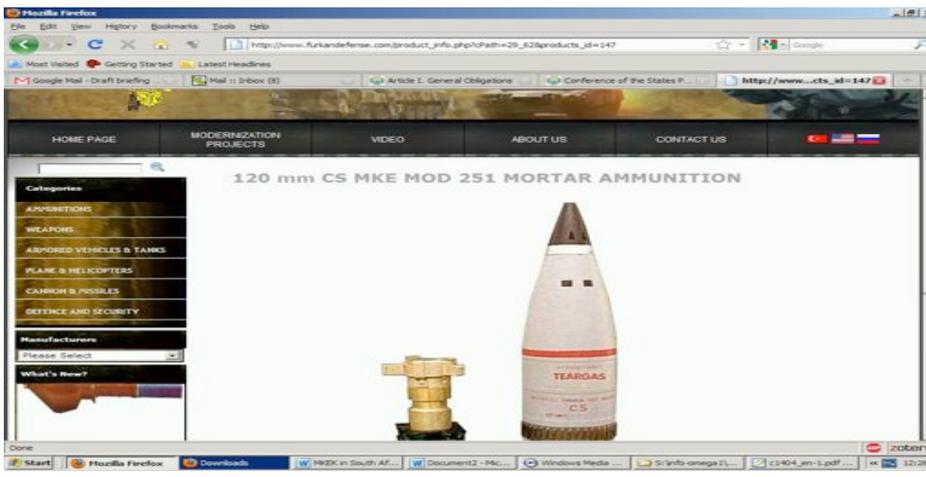
1. In September 2005, researchers attending the 7<sup>th</sup> International Defense Industry Fair (IDEF)<sup>viii</sup> in Ankara, Turkey, recorded the promotion and marketing of this munition (see photograph above).

In December 2008, information was sought from MKEK and the Turkish Government on the status of the 120mm CS munition's manufacture, stockpiling, deployment and promotion<sup>ix</sup>, to determine whether such

activities were potentially in breach of the Convention. Whilst no response was received from MKEK, the Turkish Government replied in January 2009 as follows:

*“CWC is a successful disarmament and non-proliferation step that we fully support. We are committed to the CWC from the outset, and attach great importance to its strict implementation and universalization. In terms of Article VII obligations, I would like to reiterate that Turkish national implementation legislation of the Convention entered into force in 2006 and the regulation to implement this legislation came into force in 2007. Turkey fully implements the Convention by covering all key areas including penalty for failure to declare. Please note that Turkey has never used the CS MKE MOD 251 mortar rounds for any purpose.”<sup>xk</sup>*

Although all information concerning the CS MKE MOD 251 mortar round was subsequently removed from the MKEK website,<sup>xi</sup> recent research indicates that MKEK is still actively promoting and offering such munitions for sale (see below). Furthermore, a second Turkish company – Furkan Defense Industry – is also currently promoting these munitions on its recently established<sup>xii</sup> website.<sup>xiii</sup>



**Furkan Defense Industry website advertising the 120mm CS MKE MOD 251 Mortar Ammunition - Image Downloaded 27<sup>th</sup> September 2010.**

2. In September 2010, the CS MKE MOD 251 mortar round was photographed on display and being promoted on the MKEK exhibitor stand at the Africa Aerospace and Defence (AAD) exhibition held in Cape Town, South Africa.<sup>xiv</sup> According to the AAD website, the exhibition is “the largest exhibition of its kind in Africa” thereby allowing “exhibiting companies to market their products and services to the entire continent and beyond.” Indeed, almost 80 officially invited foreign delegations attended the previous exhibition (AAD2008), including 20 defence ministers, many from African countries.<sup>xv</sup>



**MKEK Tactical CS 120 mm mortar round, photographed on display at AAD 2010, in Cape Town, South Africa, 21<sup>st</sup>-25<sup>th</sup> September 2010 (Photo: © Robin Ballantyne/Omega Research Foundation)**

## Conclusions<sup>xvi</sup>

1. Given the design specifications for the MKEK 120mm CS mortar munition and the HY-12 rifled mortar, the use of these delivery systems for riot control or other law enforcement operations would appear to be inappropriate.
2. Although there have been no reports, to date, of the 120mm CS mortar munition being used in military operations by Turkey, the development of such munitions itself appears potentially to be a breach of the CWC.
3. Despite its January 2009 statement, it seems that the Turkish Government continues to allow, if not facilitate, the production and promotion of MKEK's CS Mod 251 munition, in apparent contravention of the CWC.
4. Because an actual (although presumably deactivated) CS MOD 251 munition was displayed and promoted by MKEK at AAD2010, the Turkish company would have had to seek authorisation for the transfer of this munition from both the Turkish and South African export/import control authorities. Presumably, South Africa authorised the import of this item and had knowledge of the purpose of its transfer (namely sales promotion at the exhibition). If this were indeed the case, such authorisation would appear to constitute assisting, encouraging or inducing MKEK in activity prohibited under the Convention, itself a potential contravention of Article 1 of the CWC.<sup>xvii</sup> Conversely, if such import authorisation was required but had not been obtained by MKEK this raises questions as to whether the import contravened South African import controls. Indications are that the South African authorities are in the process of responding to our letter (dated 19<sup>th</sup> October 2010), in which the above concerns were expressed.
5. This incident raises further grave concerns regarding MKEK's continuing activities, apparently permitted and facilitated by the government of Turkey, to promote the CS MKE MOD 251, with the consequent danger of its proliferation and potential use. Such concerns are exacerbated given AAD's profile and the number of government delegations it attracts.
6. MKEK's promotional activities at AAD raise the question of whether the munition has been promoted at other international or regional arms fairs or transferred to other CWC States Parties or non-CWC States Parties.

## Issues for Consideration by States Parties to the CWC

Under Article 1.1 of the Chemical Weapons Convention:

*"Each State Party to this Convention undertakes **never under any circumstances**:*

- (a) To develop, produce, otherwise acquire, stockpile or retain chemical weapons, or transfer, directly or indirectly, chemical weapons to anyone;*
- (b) To use chemical weapons;*
- (c) To engage in any military preparations to use chemical weapons;*
- (d) To assist, encourage or induce, in any way, anyone to engage in any activity prohibited to a State Party under this Convention."* **[Emphasis added]**

Article 2.1 of the Chemical Weapons Convention, defines a chemical weapon as:

- (a) toxic chemicals or their precursors, except where intended for purposes not prohibited by the Convention, **as long as the types and quantities are consistent with such purposes**;*
- (b) munitions and devices specifically designed to cause death or other harm through the toxic properties of those toxic chemicals specified in subparagraph (a), which would be released as a result of the employment of such munitions and devices;..."* **[Emphasis added]**

Amongst the "purposes not prohibited" defined under Article 2.9 of the Convention are:

- (c) Military purposes not connected with the use of chemical weapons and not dependent on the use of the toxic properties of chemicals as a method of warfare;*
- (d) Law enforcement including domestic riot control purposes.*

According to a number of international lawyers and arms control experts, a range of munitions containing RCAs which have military utility, such as cluster munitions, aerial bombs, mortar rounds and artillery shells would be inherently

unacceptable for use in law enforcement activities.<sup>xviii</sup> Such munitions would potentially breach the CWC 'types and quantities' provision and the prohibition on use of RCAs as a 'method of warfare'.<sup>xix</sup>

MKEK's manufacture and promotion of the CS MOD 251 mortar round was publicly documented by the Bradford Non-Lethal Weapons Research Project in October 2009<sup>xx</sup> and subsequently reported in the media.<sup>xxi</sup> However, a review of relevant open source documents shows that no CWC States Party has yet raised this matter publicly under the auspices of the CWC nor initiated multilateral consultation or investigatory mechanisms under the Convention.

We recommend that CWC States Parties should, individually or collectively, act through the appropriate mechanisms to:

- Determine whether the development, production, stockpiling, transfer and use of the CS MOD 251, and other large calibre munitions containing riot control agents, is prohibited under the CWC;
- Investigate whether any CWC States Parties have developed, produced, stockpiled, transferred or used the CS MOD 251 or other large calibre munitions containing RCAs;
- Determine what action should be taken against those CWC States Parties that have carried out such activities.

Given the continuing international marketing of the CS MOD 251, the consequent danger of proliferation of this munition and the potential undermining of the CWC, we believe that the CWC States Parties should address this issue as a matter of urgency.

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<sup>i</sup> This briefing paper has been produced jointly by Bradford Non-Lethal Weapons Research Project, Omega Research Foundation and Africa's Development and Threat of Weapons of Mass Destruction Project' of the Institute for Security Studies. It is being circulated at the 15th CWC Conference of States Parties (CSP-15), taking place between 29<sup>th</sup> November – 3<sup>rd</sup> December 2010, in The Hague, Netherlands.

<sup>ii</sup> MKEK was established in 1950 under Turkish Law No.5591, for the "purpose of producing most of the equipment and tool requirement[s] of the Turkish Armed Forces", and also for "satisfying the essential needs of the civil industry". MKEK also takes part in "the International Defence Industry Market by exporting to more than 40 countries." For further details see MKEK website: <http://www.mkek.gov.tr/english/foHakkimizda.aspx> (accessed 30th September 2010).

<sup>iii</sup> Foss, C. Turkey details 120mm Automatic Mortar, *Janes Defence Weekly*, 12th November 2003.

<sup>iv</sup> Turkish Defence Industry Catalogue (2007) <http://www2.ssm.gov.tr/katalog2007/data/24509/9/uruning/uruning34.html> (accessed 30<sup>th</sup> September 2010)

<sup>v</sup> Further information concerning this licence agreement is currently being sought from the Government of France and TDA Armements.

<sup>vi</sup> Foss, C. (2003) op.cit.

<sup>vii</sup> Report from Kennzeichen D (ZDF, German TV), 27th October 1999. As cited in *News Chronology*, CBW Conventions Bulletin, No.46, December 1999, Harvard Sussex Program, p.41.

<sup>viii</sup> The 7th International Defense Industry Fair was held by The Turkish Armed Forces Foundation under the auspices of the Turkish Ministry of Defense at the Ankara Hippodrome between 27<sup>th</sup> - 30th September 2005. Over 400 companies from 49 countries exhibited their goods and services at IDEF, of which 108 were from Turkey.

<sup>ix</sup> Letters were sent by Bradford Non-Lethal Weapons Research Project to representatives of MKEK, the Turkish Ministry of Foreign Affairs and Turkish Ministry of Defence on 19th December 2008.

<sup>x</sup> Email correspondence between Bradford Non-Lethal Weapons Research Project and the Head of Department, Disarmament and Arms Control, Turkish Ministry of Foreign Affairs, 21st January 2009.

<sup>xi</sup> MKEK was promoting the CS mortar round till at least mid-November 2009 on its website, see <http://mkekexport.com/ammunition.htm> (accessed 16th November 2009).

<sup>xii</sup> According to 'Who Is Domain Tools', the date of registration for the Furkan Defense Industry website was 25<sup>th</sup> December 2009. See: <http://whois.domaintools.com/furkandefense.com> (accessed 27th September 2010).

<sup>xiii</sup> Furkan Defense Industry [http://www.furkandefense.com/product\\_info.php?products\\_id=147](http://www.furkandefense.com/product_info.php?products_id=147) (last accessed 24<sup>th</sup> November 2010).

<sup>xiv</sup> AAD2010 was held at Air Force Base Ysterplaat, Cape Town, South Africa from 21<sup>st</sup> to 25<sup>th</sup> September 2010. For further information see AAD 2010 website, <http://www.aadexpo.co.za/> (accessed 28<sup>th</sup> September 2010).

<sup>xv</sup> AAD 2010 website, <http://www.aadexpo.co.za/> (accessed 28<sup>th</sup> September 2010).

<sup>xvi</sup> It should be noted that on 19<sup>th</sup> October 2010, letters were sent by Bradford Non-Lethal Weapons Research Project, Omega Research Foundation and Africa's Development and Threat of Weapons of Mass Destruction Project' of the Institute for Security Studies to representatives of MKEK, the Turkish Ministry of Foreign Affairs; AAD, the South African Department of International Relations and Cooperation and the Department of Trade and Industry highlighting our concerns and requesting further information. No formal response has been received to date. Correspondence detailing our concerns was also sent to the Director General of the OPCW on 19<sup>th</sup> October 2010, for his information, and a response received on 16<sup>th</sup> November 2010.

<sup>xvii</sup> OPCW, Chemical Weapons Convention, Article 1.1.(d)

<sup>xviii</sup> For example see, Chayes, A. and Meselson, M. (1997) Proposed Guidelines on the Status of Riot Control Agents and Other Toxic Chemicals Under the Chemical Weapons Convention, *Chemical Weapons Convention Bulletin*, Volume 35, March 1997.

<sup>xix</sup> OPCW, Chemical Weapons Convention, Article 1.5

<sup>xx</sup> Crowley, M. Dangerous Ambiguities: Regulation of Riot Control Agents and Incapacitants under the Chemical Weapons Convention, Bradford Non-Lethal Weapons Research Project, University of Bradford, October 2009, pp.108-109, <http://www.brad.ac.uk/acad/nlw/publications/BNLWRPDangerous1.pdf>.

<sup>xxi</sup> See for example: Schneidmiller, C. Danger of "Nonlethal" Agents Grows Amid States' Inaction, Report Says, *Global Security Newswire*, 6<sup>th</sup> November 2009, [http://gsn.nti.org/gsn/nw\\_20091106\\_8443.php](http://gsn.nti.org/gsn/nw_20091106_8443.php); Crowley, M. Toxic traps - weaknesses of the chemical control regime, *Janes Intelligence Review*, December-January 2009.