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MINISTER OF STATE FOR
THE ARMED FORCES

MSU/04/05/02/28/is

6 October 2009

Dear Ms Docksey

Thank you for the question you raised at the 'Is Government Listening' conference last month on the UK definition of thermobaric weapons. I undertook to get back to you with a detailed response and George Farebrother has kindly provided me with your e-mail address.

The term thermobaric was first used by the Russians who used a range of different devices in Afghanistan in the 1980s and against civilians in Chechnya in the 1990s for which they were widely condemned. These were fuel-air weapons that formed an aerosol cloud which then ignited to create a fireball; this created an overpressure and temperatures typically of 2500 – 3000 centigrade which caused both blast and burn injuries. So the weapon design intent was to produce an overpressure (enhanced blast) and enhanced heat.

While there is no internationally recognised definition for so-called "thermobaric" weapons, the term "thermobaric" implies the enhancement of both pressure and heat. These are actually common traits of many (if not all) blast explosives. For example, the local temperature of a TNT blast can easily reach 3000 degrees centigrade. Similarly, the fireball temperatures of some standard aluminised explosives can reach 5000 degrees centigrade. But neither is referred to as "thermobaric". The view of the Ministry of Defence is therefore to avoid using the term as a descriptor for weapons and explosives as it cannot be rigorously tested in such a manner as to distinguish any particular "thermobaric" system from all other "conventional" systems. Regrettably, this can create a perception that we are trying to hide something but I hope you will be assured that this is absolutely not the case.

Private Office

By email to: Ms Lesley Docksey

The UK currently uses enhanced blast weapons such as the Light Anti-Structure Munition and Hellfire. These have unfortunately been marketed by the US as "thermobaric" yet they are not designed to create an enhanced heat pulse capable of setting fires as would normally be associated with such weapons. The new Anti-Structures Munition is a more capable version of Light Anti-Structure Munition and is designed to defeat defensive positions.

"Thermobaric" weapons are not the subject of specific international legal regulation by treaty and there are no plans to introduce such legislation in the near future. However, in the UK (as with most of our allies) all weapons are subject to a formal legal review process before acceptance into service. These reviews, conducted under the auspices of Article 36 of 1977 Additional Protocol 1 to the 1949 Geneva Conventions, establish whether:

- the weapon is prohibited, or whether its use is restricted, by any specific treaty provision, such as the 1993 Chemical Weapons Convention[1] or Protocol III of the 1980 Certain Conventional Weapons Convention on the Use of Incendiary Weapons, or by any other applicable rule of international law;

- it is of a nature to cause superfluous injury or unnecessary suffering;

- it is capable of being used discriminately, i.e. distinguishing between lawful military targets and civilians/civilian objects;

- it may be expected to cause widespread, long-term and severe damage to the natural environment; and whether

- it is likely to be affected by current and possible future trends in the development of International Humanitarian Law.

I can assure you, therefore, that no weapon enters service into the UK inventory unless it is considered a lawful weapon and that our forces are trained to use them in accordance with International Humanitarian Law.

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[1] Formally, the 1980 UN Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May be Deemed to be Excessively Injurious or to Have Indiscriminate Effects.

In conclusion, we simply do not use the term "thermobaric" at the Ministry of Defence.

I trust that you find this explanation helpful.

Yours sincerely

Bill Rammell

Bill Rammell MP