

## **DSAC Sub-committee on the Medical Implications of Less-lethal Weapons (DOMILL)**

Statement on a review of the first year of operational use of M26 and X26 Tasers by Specially Trained Units and Authorised Firearms Officers at incidents where firearms authority has not been granted.

### **Background**

1. On 20<sup>th</sup> July 2007, the Home Secretary approved a one year trial by ten police forces of the use of M26 and X26 Tasers by Specially Trained Units (STUs) and Authorised Firearms Officers (AFOs) at incidents where firearms authority had not been granted.
2. The trial, which commenced on 1<sup>st</sup> September 2007, was an extension of the then extant policy (addressing use solely by AFOs *within* firearms authority) to operational deployment of Tasers *outside* this criterion at incidents involving violence, or threats of violence, of such severity that AFOs and STUs would need to use force to protect the public, themselves or the subject.
3. The statement prepared by DOMILL prior to the start of the trial<sup>1</sup> recommended (at para. 17):  
*“In view of the uncertainties in the population characteristics of the increased numbers of subjects who are likely to be affected by the extended use of the Taser, it is essential that a quarterly review of Taser Evaluations Forms is undertaken by ACPO, DSTL and the Home Office. The acceptability of reversion to annual reporting should be assessed after the first year and DOMILL should be consulted. The Taser Evaluation Forms should identify under which policy authority the Taser was used.”*
4. The present statement is DOMILL’s advice to Ministers on the appropriateness of its extant statement offered before the start of the trial, in the light of the ensuing operational audit. It is based on the evaluation outlined below and the continuing review by the Defence Science and Technology Laboratory (Dstl) and DOMILL of the medical research and operational data published worldwide on Taser use.
5. The Association of Chief Police Officers (ACPO) and the Home Office Scientific Development Branch (HOSDB) have employed a comprehensive Taser Evaluation Form to capture data from every use of Taser within Great Britain.<sup>2</sup>

### **Review of Taser Evaluation Forms**

6. HOSDB provided DOMILL with timely quarterly reports and a final cumulative report summarising subject characteristics such as estimated age, height and build. Moderating factors such as intoxication and known or surmised pre-existing medical conditions

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<sup>1</sup>DSAC Sub-committee on the Medical Implications of Less-lethal Weapons (DOMILL). Statement on the medical implications of M26 and X26 Taser use at incidents where firearms authority has not been granted. DSTL/BSC/27/01/07 (dated 30 May 2007).

<sup>2</sup>Use is classified as drawing or aiming the Taser, illuminating the subject with the sighting laser, arcing the Taser as a warning, applying the electrical output of the Taser to the subject via the propelled probes, or by direct application of the Taser probes to the individual (so-called drive-stun mode).

were also noted. The reports also summarised details of the applications of the Tasers (probe location and number of applications) and injuries to subjects (primary, secondary and coincidental<sup>3</sup>) reported by the apprehending officers. These data were compiled separately for: (a) Taser use within firearms authority by AFOs, (b) Taser use outside firearms authority by AFOs, and (c) Taser use outside firearms authority by STUs. The Taser Evaluation Forms completed for each incident were made available to DOMILL and Dstl to address specific queries emerging from the compiled data. Forensic Medical Examiner (FME) forms, recording the in-custody clinical assessment of detained persons, were available for some of the incidents.

7. During the accounting period<sup>4</sup>, the Taser was used against a total of 1313 persons by AFOs and STUs outside of firearms authority.<sup>2</sup> Within these uses, the Taser was fired (probes propelled) at 300 persons and used in drive-stun mode against 55 persons.
8. For AFOs deployed within an authorised firearms operation, the Taser was used against a total of 617 persons, with the device being fired at 222 persons and used in drive-stun mode against 16 persons.
9. In a minority of incidents, individuals were subjected to Taser discharge both via the propelled probes and by drive-stun (not necessarily simultaneously).
10. In the overwhelming majority of recorded incidents involving Taser use by AFOs and STUs during the trial, the X26 variant of the device was used.
11. There were no recorded incidents of serious adverse medical events attributable to Taser current application. Secondary injuries were principally the expected barb wounds or probe contact marks and minor injuries to the head and body from falls.
12. When all three categories of Taser use during the accounting period are considered together, the majority (93%) of persons subjected to Taser discharge via propelled probes were male.

### **Use on persons under eighteen years of age**

13. Applications of Taser to persons under the age of eighteen were reviewed in detail. For all three classes of use within the trial year, the Taser current was applied to twenty-four subjects under eighteen years old. Thirteen were exposed to the fired probes only, seven to drive-stun application only, and four subjected to both. None of the incidents resulted in adverse medical outcomes attributable to the primary effects of the Taser. The secondary injuries were barb puncture wounds or drive-stun burn marks at the site of probe contact. There were no reported instances of head injury due to Taser-induced falls. In two cases, the top probe struck the neck.

### **Conclusions**

14. The data reviewed by DOMILL for the current extended use trial and for earlier trials reinforce the Committee's view that the risk of death or serious injury from use of the M26 and X26 Tasers within ACPO Guidance and Policy is very low. The risk, however, is not zero, as evidenced by two reported incidents in the United States in

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<sup>3</sup>Primary injuries are those directly attributable to the application of the Taser currents; *secondary* are those physical injuries directly associated with Taser use (e.g. barb wounds and head injuries from falls); *coincidental* injuries are those not directly associated with Taser use (e.g. self-inflicted wounds).

<sup>4</sup>Although the accounting period covered Taser uses from 20<sup>th</sup> July 2007 to 31<sup>st</sup> August 2008, the trial of Taser use by AFOs and STUs outside of firearms authority ran from 1<sup>st</sup> September 2007 to 31<sup>st</sup> August 2008.

which the subjects sustained fatal head injuries as a result of Taser-induced falls. There are also insufficient data from use in the UK and elsewhere with which to evaluate any potential risks to the fetus in pregnant women.<sup>5</sup>

15. DOMILL has reviewed the extant statement and considers that, on the evidence of the large number of Taser applications in the current trial, its conclusions are still appropriate.

### **Recommendations**

16. The extant statement recommended that, in view of the uncertainties in the population characteristics of subjects who were likely to be affected by the extended use of the Taser, it was essential that quarterly reviews of the evaluation forms were undertaken. If the trial is extended in duration, or by involvement of more police forces using the Taser outside of firearms authority, DOMILL recommends that quarterly reviewing continues for one year, and the frequency of future reviews reconsidered subsequently.
17. DOMILL further recommends that ACPO Guidance on the Operational Use of Taser is amended to: (a) reinforce the need for prompt medical review and, if necessary, hospital referral, of individuals who have suffered head injury either as a result of Taser-induced falls or from other uses of force, and (b) re-emphasise the requirement for in-custody FME evaluation of all persons who have been subjected to Taser discharge, with particular attention given to detained persons who are known to have, or are suspected to be suffering from, diabetes, asthma, heart disease, epilepsy or any other condition (including alcohol and/or illicit drug intoxication) which may influence the individual's fitness to be detained and which, in some cases, may warrant transfer to hospital.

[signed]

Chairman, DOMILL

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<sup>5</sup> Although not prompted by a specific adverse event, the potential medical implications of use of the Taser on pregnant women will be considered by DOMILL at a later date.