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## **Technical Memorandum**

**TM-06-2007**

# **Survey on use of Taser International 21ft cartridges**

April, 2007

**Prepared for the Canadian Police Research Centre  
by Alexandra Lewis**

This Technical Memorandum is a Canadian Police Research Centre publication.  
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## **Abstract**

This report provides a summary of the use of Taser International 21ft cartridges in Canadian law enforcement agencies and organizations in Alberta, British Columbia, Ontario and Saskatchewan. It surveys the use of cartridges by members and seeks to identify any problems experienced during use.

## **Introduction**

This report was initiated by a request from the Home Office Scientific Development Branch. The Home Office is seeking some information on the North American experience with Taser International's 21foot cartridges. The survey was sent to the CPRC Technology Partner Associate Network in March 2007.

The CPRC Technology Partner Associate Program provides a virtual cross-country network that supports the CPRC in the development and diffusion of law enforcement technologies. The TPA program also helps to disseminate technical information, to provide updates on new products, procedures, and research developments and to facilitate information sharing among member agencies. [http://www.cprc.org/annualreport/cprc annual report 2005 e.pdf](http://www.cprc.org/annualreport/cprc%20annual%20report%202005%20e.pdf)

The CPRC gratefully acknowledges the support of the following nine agencies for responding to the survey:

Brantford Police Service, Calgary Police Service, Hamilton Police Service, Peel Regional Police, Regina Police Service, Saanich Police Department, Taber Police Service, Toronto Police Service, Vancouver Police Department.

The TPA responses have been summarized and tabulated in the report for reference purposes.

## Results

Most of the police services surveyed are using or had used the 21 foot cartridges:

### **Question 1) Have you been using these cartridges?**

Selected comments follow:

*"We only use the 15' and 21' foot for training. We currently deploy the 25' XP (extended probe) for operational deployment."*

-British Columbia

*"We have been using the 21 foot cartridges since we first started deploying the Tasers. I just finished my Taser Instructor recertification and found out that [elsewhere in Alberta] Police Services have switched from 21 foot to the 25 foot cartridges. From what I understand, they wanted to have the extra distance when deploying. I do not know if we will be switching when we order new cartridges this year."*

-Alberta

*"The Police Service has used the standard 21' cartridge with standard probes (black body, silver blast doors) for several years with good results."*

-Ontario

*"The Police Service currently deploys the heavier 25ft XP Cartridge which we use year around for front line officers. Due to our short summers and long winters we have just deployed one type of cartridge. We will have 20 X26 Tasers deployed front line in the next few months and these officers will all be deploying the XP 25ft Cartridge. It should be noted that in our original purchase, the XP cartridge was designed and manufactured at 21ft , however, currently to get the XP cartridge it now is manufactured at 25ft. Note, in our detention area we deploy the regular probe 15ft cartridge because of the close quarters and the ability to control the amount of clothing a prisoner in custody has on."*

-Saskatchewan

### **Question 2) Do you know of any problems with the higher pressure cartridges?**

Selected responses follow:

*"The only issue we have had has been with the blast doors falling off. I understand that TASER is aware of this problem and is replacing any cartridge that this occurs with. TASER has changed the configuration of the blast doors so that they now hook into place and are mechanically locked (by design) until the cartridge is deployed."*

-Ontario

*"The Police Service has not had any issues others than officers hitting their targets at distances greater than approx. 15 ft."*

- Ontario

*"We have not had any injuries occur beyond the standard probe penetration. Our operational experience has been that 12' is the approximate effective range for either cartridge. Beyond that range the spread limits the potential for two good probe strikes."*  
-British Columbia

*"There have not been any major problems nor have there been any unexpected injuries. However, we are now switching to the 25' XP Cartridge with the longer, heavier probes (black body, green blast doors) as we believe these cartridges are potentially more effective when dealing with individuals wearing heavy, layered clothing. Our Emergency Task Force (SWAT) have used the 25' Cartridge for over a year with good results and no unexpected injuries."*  
-Ontario

*"The only issue we had with that cartridge was the "blast doors" falling off. In June of 2006 we began to phase in the 25' XP cartridge (all Tasers equipped by December 2006) There have been no issues with the new cartridge. They can be discharged at a farther (safer) distance and have 0.11" longer probes which enable more penetration through heavier clothing used in the Canadian climate."*  
-Ontario

*"Since September 2005 when we began using the XP probe, we have had 209 deployments to date without any reported injuries. We also have had no reported incidents of the probes falling out after successful impact with the subject's body."*  
-Alberta

The individual responses are included in full in the table.

Province	Have you been using 21ft cartridges?	Comments	Do you know of any problems with the higher pressure cartridges?
Alberta	Yes	We have been using the 21 foot cartridges since we first started deploying the Tasers. I just finished my Taser Instructor recertification and found out that [elsewhere in Alberta] Police Services have switched from 21 foot to the 25 foot cartridges. From what I understand, they wanted to have the extra distance when deploying. I do not know if we will be switching when we order new cartridges this year.	We have not experienced any difficulties or injuries with them.
Alberta	No	I didn't think the 21 foot cartridges came with the XP probe? I was under the impression that the XP Probe only came in the 25 foot cartridge, which is what we use here.	Since September 2005 when we began using the XP probe, we have had 209 deployments to date without any reported injuries. We also have had no reported incidents of the probes falling out after successful impact with the subject's body.
British Columbia	Yes	Our agency used the 21ft cartridge for 3 years and now uses the 25ft cartridge.	We have not had any injuries occur beyond the standard probe penetration. Our operational experience has been that 12' is the approximate effective range for either cartridge. Beyond that range the spread limits the potential for two good probe strikes.
British Columbia	Yes	We only use the 15' and 21' foot for training. We currently deploy the 25' XP (extended probe) for operational deployment.	I am not aware of any problems.
Ontario	Yes	The Police Service deploys the 21 foot cartridge.	The Police Service has not had any issues others than officers hitting their targets at distances greater than approx. 15 ft.

Province	Have you been using 21ft cartridges?	Comments	Do you know of any problems with the higher pressure cartridges?
Ontario	Yes	We have been using the standard 21 ft TASER cartridges for field operations since we started using the TASER in March of last year. We have experienced no malfunctions or unexpected injuries while using them. The cartridges have been accurate and have performed as expected.	The only issue we have had has been with the blast doors falling off. I understand that TASER is aware of this problem and is replacing any cartridge that this occurs with. TASER has changed the configuration of the blast doors so that they now hook into place and are mechanically locked (by design) until the cartridge is deployed.
Ontario	Yes	The Police Service has used the standard 21' cartridge with standard probes (black body, silver blast doors) for several years with good results.	There have not been any major problems nor have there been any unexpected injuries. However, we are now switching to the 25' XP Cartridge with the longer, heavier probes (black body, green blast doors) as we believe these cartridges are potentially more effective when dealing with individuals wearing heavy, layered clothing. Our Emergency Task Force (SWAT) have used the 25' Cartridge for over a year with good results and no unexpected injuries.
Ontario	Yes	We began using Taser with the 21' cartridge in 2001 with the Tactical Unit, and then with the front-line supervisors in July 2004.	The only issue we had with that cartridge was the "blast doors" falling off. In June of 2006 we began to phase in the 25' XP cartridge (all Tasers equipped by December 2006) There have been no issues with the new cartridge. They can be discharged at a farther (safer) distance and have 0.11" longer probes which enable more penetration through heavier clothing used in the Canadian climate.



Province	Have you been using 21ft cartridges?	Comments	Do you know of any problems with the higher pressure cartridges?
Saskatchewan	Yes	<p>The Police Service currently deploys the heavier 25ft XP Cartridge which we use year around for front line officers. Due to our short summers and long winters we have just deployed one type of cartridge. We will have 20 X26 Tasers deployed front line in the next few months and these officers will all be deploying the XP 25ft Cartridge. It should be noted that in our original purchase, the XP cartridge was designed and manufactured at 21ft , however, currently to get the XP cartridge it now is manufactured at 25ft. Note, in our detention area we deploy the regular probe 15ft cartridge because of the close quarters and the ability to control the amount of clothing a prisoner in custody has on.</p>	<p>We have had only a few deployments and have had no issues in terms of injuries from the use of the XP probe.</p>