

METRO DADE POLICE DEPARTMENT

TRAINING BUREAU

PHYSICAL SKILLS UNIT

EXPANDABLE BATON STUDY

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**Metro-Dade Police Department
Training Bureau
Physical Skills Unit**

EXPANDABLE BATON STUDY

History

The concept of the expandable baton was developed and utilized in the Orient. In the 1960's, the expandable baton called the Titan Taper was developed in the United States. The Titan Taper was developed after an impact weapon called the Nobel Baton, which was being utilized in the Orient by law enforcement officers. The expandable batons that are being manufactured today are also based on the oriental Nobel Baton and the Titan Taper. When the Titan Taper was introduced in the United States, it was well received. The Titan Taper had a two part shaft that extended (telescopic) from a handle to a length of 16 inches. Even though the Titan Taper was well received, it soon faded from use. Today the expandable baton has come a long way. The concepts of development are the same but the material and craftsmanship has been upgraded with the help of technology.

Expandable Baton/Nomenclature

The expandable batons the Department's Training Bureau tested were the 21-inch ASP, Casco, and PPCT (see Annexes 1, 2, and 3). The nomenclature of the expandable batons are all basically the same (Annex 4). The batons all start with a handle that is approximately eight inches in length when closed and when extended out is 21 inches in length. The handle is used to house the two

shafts that telescope out and the retaining springs that control the tension on the shaft when it is closed.

Study/Field Test

In today's market, there are three major brands of expandable batons that were studied by the Metro-Dade Police Department's Training Bureau. On January 27, 1993, the Physical Skills Unit trained 31 officers for the purpose of field testing the expandable batons. The officers attended an eight-hour basic certification course at the Training Bureau on three different types of batons being studied. The officers were then issued an expandable baton and, at the end of the three week testing period, returned to the Training Bureau, exchanged batons and filled out an evaluation (Annex 5). At the end of the nine week testing period, every officer had an opportunity to test and evaluate all three types of batons by the different manufacturers. To make the field test more comprehensive, officers were selected from entities throughout the Department.

Allotments for entities were as follows:

1. Criminal Investigations Division
 - A. Homicide Bureau Non-uniform
 - B. Physical Offenses Bureau/Robbery Non-uniform

2. Special Investigations Division
 - A. Narcotics Bureau, North Region Non-uniform
 - B. Narcotics Bureau, South Region Non-uniform

3. Police Services

A. North Operations Division

(1)	Airport Station	Uniform
(2)	Intracoastal Station	Uniform/CST
(3)	Miami Lakes Station	Uniform/CST
(4)	Northside Station	Uniform/CST

B. South Operations Division

(1)	Cutler Ridge Station	Uniform/CST
(2)	Doral Station	Uniform/CST
(3)	Hammocks Station	Uniform/CST
(4)	Kendall Station	Uniform/CST

4. Uniform Services Division

A. Police Operations Bureau

(1)	Bay Operations Section	Uniform
(2)	JMH/Transit Section	Uniform

B. Special Patrol Bureau

(1)	Special Response Team	Non-uniform
(2)	Motorcycle Unit	Uniform

5. Sheriff Services Division

A.	Warrants Bureau	Non-uniform
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6. Community Affairs Bureau

A.	Gang Unit	Non-uniform
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Comments

All officers participating were trained under the same basic expandable baton course that was developed by the Physical Skills Unit. The results of the field test showed that most officers selected the ASP expandable baton as their first choice, Casco as their second, and PPCT as the third. The evaluation reflected the following comments by the officers.

I. Non-uniform

- A. Officers who work undercover or plainclothes found that they now had an impact weapon that they could conceal in their back pocket or on their belt because the baton is small and compact.
- B. The baton could always be with them when they went on a call or worked undercover.
- C. It provided the undercover officers with a sense of security.
- D. The expandable baton provided an alternative to situations where the officer could not use the firearm but needed an impact weapon.
- E. The expandable baton fills the gap between physical force and deadly force for the plainclothes and undercover officers.

II. Uniform

- A. Uniform officers found that wearing the expandable baton on their gun belt was comfortable.
- B. The expandable baton did not get in the way of sitting or operating the vehicle, whereas with the PR-24 you cannot sit or operate your vehicle with the PR-24 on the gun belt.
- C. When the expandable baton is on the gun belt, it is always with the officer, not left in the patrol vehicle like the PR-24 because of its size.
- D. The expandable baton does not get in the way if the officer has to run, climb over a fence or handcuff a subject.
- E. The expandable baton is small and compact, making it a low profile impact weapon.
- F. Officers can carry the expandable baton in the palm of their hand (closed mode) when they go to domestic calls. The officers had the security of the impact weapon while not agitating the situation with a threatening weapon.
- G. Officers who work the Airport Station felt that the expandable baton was less threatening to the public while walking on foot patrol at the Airport.

- H. Motorcycle officers advised that when they carried the PR-24 on their gun belt, it was dangerous to drive with because of its length. The PR-24 had to be secured to their motorcycle and was not always accessible when needed.
- I. Gang Units liked the expandable baton because they could carry an impact weapon with them at all times. The Gang Unit is always involved in crowds and they never know when the crowd might turn hostile.
- J. The Transit Unit found the expandable baton very useful in the closed mode because of the limited space on the train. They found a standard PR-24 cumbersome in a limited space. The expandable baton allows the Transit Unit an impact weapon in a controlled space.

All entities that tested the expandable baton felt that the baton was useful to them. The expandable baton was found to be advantageous in the following ways:

1. The expandable baton had a psychological effect when being extended because of the unmistakable sound that is made when it is extended. If the officer was facing a hostile subject, just opening the baton caused the subject to stop his aggressive behavior and surrender without an altercation. Not only is the sound effective, but when the subjects see the chrome finished baton, they do not know what it is and that defuses the situation.
2. Officers found that the expandable baton was very effective in dealing with crowds at football games, concerts and special events.
3. The expandable baton was also used by officers to defuse fights before they could get out of control.
4. Officers had been able to defend themselves with the expandable baton on aggressive dogs. The dogs would bite the baton and then retreat. The baton gave the officers an alternative to shooting the dog.

Recommendations

The expandable baton being recommended by the Training Bureau Physical Skills Unit is the ASP 21-inch foam handle. After the

evaluations from the field test were correlated, most officers' choice was the ASP. In addition to the officers' choice, other factors were taken into consideration.

In January 1993, Armament Systems and Procedures, Inc., (ASP), hired Technimet Corporation, an independent laboratory, to do some comparison tests on the different types of expandable batons that are being manufactured (ASP, Casco, and PPCT). The ASP F21 was first paragoned with Casco CAS 21. The testing conducted was a corrosion resistance and grip strength comparison. The corrosion resistance test was conducted by placing fully extended batons into a salt fog cabinet. The Casco CAS 21 was exposed for a total of 19 hours before the rust corrosion became prevalent (Annex 6). The ASP was exposed for 27 hours and showed no signs of corrosion. The second test conducted was the grip quality. This test paragoned how the foam was adhering to the batons and its durability. The ASP baton is constructed with a specially designed handle to protect the foam from moving. The foam grip is also adhesive to the top of the opening end, but had no other type of protection to keep the foam from moving. The tear resistance on the foam grip for the ASP F21 was 40-45 pounds, whereas the Casco CAS 21 was only 17-20. The next paragon was between the ASP F21 and the PPCT foam gripped batons.

The testing that was conducted on the ASP F21 and the foam gripped PPCT were the corrosion resistance, foam grip design and spring and cap design. The corrosion resistant test was conducted the same way as with the Casco Baton. The PPCT and the ASP were exposed for a total of 27 hours. The ASP showed no signs of rust whereas rust was prevalent on the PPCT (Annex 7). The testing on the grip comparison was on how the foam grip is adhesive to the batons. The PPCT foam is slid over a knurled handle while the ASP had the special designed handle. The last test conducted was the cap and retaining spring design. The design on the PPCT cap uses a bent wire that is affixed to the cap. The bent wire is the retaining spring that holds the tension on the shaft. The ASP has a retaining spring that is connected to a disc. This disc rests at the bottom of the shaft inside the handle to control the tension. Another factor that was considered was repairing or replacing the batons.

ASP advised that if the Department should have any problems with their expandable batons, they can be replaced over the counter at any local dealer. ASP has a lifetime warranty on all their batons. ASP also sells an armorer kit and grip kit to make adjustments on the retaining spring and minor repairs on the batons. ASP will also stamp a serial number on each baton so the Department can meet the mandate on impact weapons set by CALEA for national standards.

Legal

The Police Legal Bureau was contacted in regards to the feasibility and issuance of the expandable batons. Information was requested on whether the batons had been the subject of any legal litigation and if they are comparable with the PR-24 and other straight batons for purposes of civil liability analysis. The Legal Bureau advised that the expandable baton, like the PR-24 or any other straight baton, is a weapon whose use must conform to the Department's policy on the use of force. It is the improper use of such force that subjects the officers and the Department to civil liability. The question is not which impact weapon was used but how it was used. If any impact weapon is used improperly, potential civil liability can exist. There is no information on whether the expandable baton has been the subject of any litigations (Annex 8).

Medical

Dr. Joseph Davis, of the Medical Examiner's Office, was contacted in regards to getting his expert opinion on whether there are any significant differences in impact injuries between the expandable baton and the PR-24. Dr. Davis advised that, in his opinion, the answer depends on the target area. The soft tissue or non-vital sites are capable of absorbing considerable kinetic energy resulting in minimal serious injuries. The striking force being equal, no significant difference in effect is to be expected areas

are considered lethal force areas in which it is moot whether an expandable baton or a PR-24 is used. The utilization of the expandable baton will be the same as the PR-24 for vital striking points (target areas) of the body (Annex 9 and 10).

Municipal Police Departments in Dade County Carrying the ASP:

Biscayne Park Police Department
Coral Gables Police Department
El Portal Police Department
Hialeah Police Department
Indian Creek Police Department
Medley Police Department
Miami Beach Police Department
Miami Shores Police Department
North Bay Village Police Department
North Miami Police Department
Opa Locka Police Department
South Miami Police Department
Surfside Police Department
Sweetwater Police Department
Virginia Gardens Police Department

Cost

The total estimated cost would be \$160,320 for the batons and scabbards for approximately 2,640 personnel. The Physical Skills Unit recommends that all sworn personnel through the rank of lieutenant be issued an expandable baton.

Summary:

The expandable baton offers an officer an intermediate force option by providing them with an impact weapon suitable for use in diversified environments, while maintaining a low profile.

The expandable baton fills the gap between physical force and deadly force. The ASP can always be carried on the gun belt while the PR-24 is left in the vehicle. Undercover and plainclothes officers now have an impact weapon that they can carry while working undercover.