



PROTECTIVE EQUIPMENT FOR STAFF

Report by:

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1. INTRODUCTION

During 1991 a total of 522 police officers were assaulted in the Avon and Somerset Constabulary including 61 females. Whilst not all the assaults were serious, the number represents the way violence towards police officers is escalating at an alarming rate, when considering that five years ago the figure stood at 191. Already this year there is a marked increase on last year's recorded number of assaults over the same period.

This situation has placed the Avon and Somerset Constabulary in an intolerable situation. On the one hand there is the safety and welfare of serving officers to consider, and on the other, there is a certain image of the British police officer which the public expects, and in today's climate, we cannot afford to alienate the public by presenting a heavily armed, aggressive looking police officer. So what are the alternatives? Stiffer sentences - whilst this would be desirable, it is not within our power to implement, and I would still question its deterrent value on a drunken youth who is "hell bent on hurting someone."

The standard issue police truncheon is an outdated piece of equipment, having been in use for over 150 years. Its origins go back to the days of the Royal Navy press gangs when it was used to approach the would be 'volunteer' from behind and club him over the head. Its design and balance is for a head strike and yet ironically the only training most of us have received is a PT.1 saying "Don't hit people on the head with it."

The truncheon is a crushing weapon, which if the user is unlucky will result in orthopaedic injuries to the offender. During winter months however, the truncheon has shown to be all but ineffectual if used against a person wearing a thick ski jacket or several layers of clothing. It would be fair to say that the vast majority of police officers have no confidence in the truncheon.

It was with this problem in mind that I decided, about 18 months ago, to carry out research into possible alternatives, and was amazed at the number of batons available - most of which can be dismissed as "gimmickry" or just simply a "large club."

It was whilst in Miami that I met Sergeant James SLACK, who was a Physical Tactics Instructor of the Metro Dade Police Department. He was very sympathetic to the problem, and with his assistance, reviewed impact weapons available to American police officers.

I dismissed any possible usage in the UK of the nightstick and other lengthy batons and therefore at that time, concentrated on the PR24 and PR24X as outlined below.

As stated later in this report, my energies were later channelled to the ASP Expandable Baton.

2. PR 24 SIDE - H A N D L E D B A T O N

Originally known as the OKINAWA TONFA, or rice grinder, this weapon was brought about hundreds of years ago when the invading Japanese warlords confiscated all swords and true weapons from the ordinary people. The farmers adapted the lowly farm tools for their own defence with incredible ingenuity and skill. The Tonfa became known as the PR 24 and first made its appearance in the United States of America about 20 years ago and was thought to be the ideal impact weapon. Without a doubt, with correct training it is an incredible piece of equipment. There are stories circulating that a man can be trained in the use of the PR 24 in a couple of hours. This is wishful thinking. A few basic strikes and blocks can be learned in a short time, but unless the user is proficient in handling the PR 24, it just becomes a longer club that can be taken and used against him. To achieve any real degree of competence a thirty hour course is recommended with regular refresher training, as there are many sophisticated manoeuvres to master to obtain the requisite degree of efficiency. To the average British police officer this training would be tedious and quickly forgotten.

The PR 24 is, in its appearance, totally alien to the British Police image, and would be very difficult to use when wearing the British Police uniform, as immediate accessibility is one

of the key ingredients to its effective use; fine in shirt sleeve order, but when wearing a tunic or anorak this accessibility would be severely restricted.

The PR 24X - a side-handled baton with a telescopic capability did, in the first instance, seem to be a viable alternative, as the baton was halved in length reducing the aggressive image. This advantage was cancelled out by the fact that additional training was needed and on close scrutiny the baton suffered from flimsy construction, giving a somewhat limited lifespan.

Although the PR 24 received a great deal of media coverage as being the answer to British policing needs to protect the 'Bobby', on closer examination the disadvantages of the baton outweigh the advantages.

3. ASP TACTICAL BATON

During the summer of 1991, I received a letter from Sergeant SLACK informing me of a new impact weapon currently being evaluated by the Miami Police, this being the ASP expanding baton. Whilst in Miami in November 1991, I was shown the baton, with the result that I requested a sample baton for further research/evaluation. So what is it?

(i) History

The concept of Expandable Batons originated in the Orient. The first commercially available weapons of this type were the Tokushu Keibo manufactured by the Nobel Company in Tokyo, Japan, and the Ni Baton designed by Professor Ni of the Central States Police College in Taipei.

The Nobel baton was widely distributed in Japan, being used by both the Tokyo Metropolitan Police Department and the National Railroad Police. Whilst well conceived, the baton suffered from relatively thin tubing, sharp edges, and knurling,

that was not compatible with American law enforcement requirements. In addition, the baton had a wrist strap which ran counter to modern training principles.

The Ni baton suffered from poor construction technology. Different from the Nobel baton by its method of automatic spring extension, the Ni unit was overly complex and had a tendency to inadvertently open.

The first American-made Expandable Baton was the Titan Taper that received limited exposure during the 1960's. Regrettably, the method of construction as well as the durability of the unit were not compatible with long term law enforcement use.

The ASP Tactical Baton was designed by Dr. Kevin Parsons in an effort to provide an intermediate impact weapon that was both concealable and yet durable enough for extended operational use. Particular emphasis was placed upon a design that was suitable for investigative, undercover, tactical team and uniform use. The result was a family of batons in different lengths to meet specific needs. All units are characterized by an absence of knurling or sharp edges that might abrade clothing or cut a subject.

Extensive testing over a five-year period was conducted under field conditions to improve the handling characteristics, durability and ease of maintenance. The result is the first weapon of its type to meet the specifications established by Federal Law Enforcement agencies.

Recent adoption of the ASP Tactical Expandable Baton by the United States Capitol Police, major agencies in both the US Department of Justice and Department of the Treasury, as well as the US Army Advanced Testing and Development Office has led to a great deal of interest in this weapon's concept on the part of municipal, county and state agencies.

(ii) Design Criteria

The ASP Expandable Baton is American produced and made from aerospace alloys and ordnance synthetics.

Virtually every major component of the Baton involved an extensive research and development effort and brought pioneering technology to the field of impact weapons.

Its non-reflective, low profile finish is rust resistant. The textured handle is made of foamed vinyl that provides a firm, durable gripping surface. As previously stated, there are no sharp edges on ASP batons likely to damage clothing or cut an assailant. These units provide a compact, inconspicuous and yet extremely effective impact instrument.

The handle of each baton is Phosphate treated for rust resistance and then Powder Paint coated. This assures a long life for the baton even though the quality of the Phosphate is not readily apparent unless the weapon is fully disassembled and subjected to inspection. The baked-on Powder Paint is not only rustproof, but extremely durable. It results in a serviceable weapon that provides a gripping surface without the abrasion of knurling.

The specially alloyed seamless tubing used in the making of the ASP Tactical Baton is the result of an exhaustive quality search. When no commercially available tubing could be found that would meet the requirements of Armament Systems, a specially formulated tube was specified. The metallurgy is so expensive and so unique that material is only available in mill run quantities that will produce a minimum of 25,000 batons per release. Such volume purchasing allows Armament Systems to secure the materials and process them using the most exacting technologies consistent with a quality product. Even the tempering process employed in the baton is of the type found in few heat treating operations. The result is a Rockwell hardness on the baton tubes of 55C, very similar to the hardness of a knife blade. So unique is the

production process for the baton that Patents are currently pending for the manufacturing techniques.

All expandable batons produced by Armament Systems and Procedures are made in Wisconsin production facilities. These are the only expandable batons that meet Federal Law Enforcement and US Military specifications. ASP Expandable Batons are constructed of specially drawn tubing that is mill forged to ASP specifications. All models feature an adjustable retaining spring. The baton locks in place with a flick of the wrist and is collapsed by tapping a hard surface.

(iii) Effectiveness

Impact weapons have a striking potential that is inversely proportionate to their weight. Thus, the heavier the baton, the slower the striking potential. The lighter the baton, the faster the striking potential. The difficulty comes from batons that are too light and thus, lack effectiveness. Expandable Batons not only have an extremely fast striking potential, but a fast recovery capability. As a result, the weapons are extremely effective defensive tools. At the same time, when applied to motor points and nerve centres, they provide excellent potential for controlling an extremely aggressive assailant.

(iv) Metal Pipe Image

The fact that Expandable Batons are fashioned from metal invariably draw analogies between the weapon and a metal pipe or torches. However, the Expandable Baton differs markedly from these items in design, intent and actual use.

Metal torches have sharp edges, knurling and limited reach. Because they are filled with batteries, they are rather slow in striking. They were obviously very intended as impact weapons. Recovery after a strike is also diminished due to their heavy weight. As a result, torches have a high propensity for damage with a low

propensity for control.

Expandable Batons were designed for striking. As a result, modern tactical examples of this weapon do not have the knurling or sharp edges that are objectionable in other products. They are balanced for striking. In addition to providing an extended reach, they are extremely rapid delivery systems with quick recovery for subsequent strikes.

Because they are designed as impact weapons, they have a high propensity for control with a low propensity for injury. They provide a greater shock with less tissue damage.

(v) Tactical Soundness

There is little question that Expandable Batons have the greatest psychological advantage of any impact weapon currently available. The extension of the Baton after presentation has been compared to the impact of an officer racking a pump action shotgun. Balanced with this psychological deterrent is the rapid striking potential and counter strike capability of this weapon. Expandable Batons have the advantages of short length concealment and portability while at the same time the practical utility of extended reach. As a result, they may be used as impact weapons in either a collapsed low profile mode or extended to a high profile posture. They are the only weapons that offer this type of dramatic low to high profile range.

(vi) Court Defensibility

Expandable Batons have been widely adopted by agencies with innovative training programs. In addition, competency based Instructor Certification Programs are available for the weapon.

More than any other less lethal weapon, experienced US Federal Court qualified expert witnesses are available for defence of the expandable concept. This includes the UK. In addition to the training and certification components of the weapon's defence, design characteristics are structured from a defensive perspective. The Expandable Baton presents a low to high profile range within its own section of the force continuum. The unit provides a psychological advantage. Because it is light and concealable, the weapon can be readily available as an intermediate force option. When employed, it generates fluid shock waves which provide a greater propensity for control with less chance of permanent tissue damage.

In Precip, the ASP Baton is compact, is compatible with our current uniform, is small enough to be carried easily by plain clothed officers and is non-aggressive in appearance when not in use.

4. TRAINING

The case for proficiency in Control and Restraint techniques is essential throughout an officer's service. On a day to day basis Officers still respond to most violent situations in the main unarmed.

The force is well aware that the cost of an extensive training programme in these techniques is equivalent to the number of hours removed from police duty. With this in mind it was felt the best way forward was to introduce a lay-Instructors scheme, the objectives of which are, to teach/instruct the core package of control and restraint, to all Officers on his/her group, in convenient time units, thus not interfering with operational commitments. To-date the force has trained seventy Officers.

With the trial of the Armament Systems and Procedures (ASP) baton due to take place on the Weston-super-Mare District in the Autumn of this year, there will be a need to involve Officers in a progressive training programme in the tactical use of this equipment.

Again to co-operate with policing duties, the training in the use of the ASP baton will take place on the Weston-super-Mare Division, thus allowing the Physical Education Officers and the Lay-Instructors to cascade the training, using the over-lap of the day/afternoon shifts.

Having studied the training programme for the baton, I am confident that an officer can be trained to be required standard in 6 hours - this can be broken into two training periods of three hours during the Ottawa overlap period. This would therefore not involve any abstractions during operational policing time.

By Inspector Stuart Hyde

5. ASP SURVEY

AUGUST 1992

Background

In June 1992, all operational staff (uniform, CID, Male/Female) in Weston-super-Mare District were asked a series of simple questions comparing 3 defensive items of police equipment.

- 1) The police truncheon
- 2) The ASP extending baton
- 3) The PR 24 baton

168 officers were sent questionnaires, 127 were returned by the closing date.

All officers had an opportunity to examine the two other pieces prior to the questionnaire.

Executive Summary

The results demonstrated overwhelming support for the ASP in preference to the two other pieces of equipment.

Results

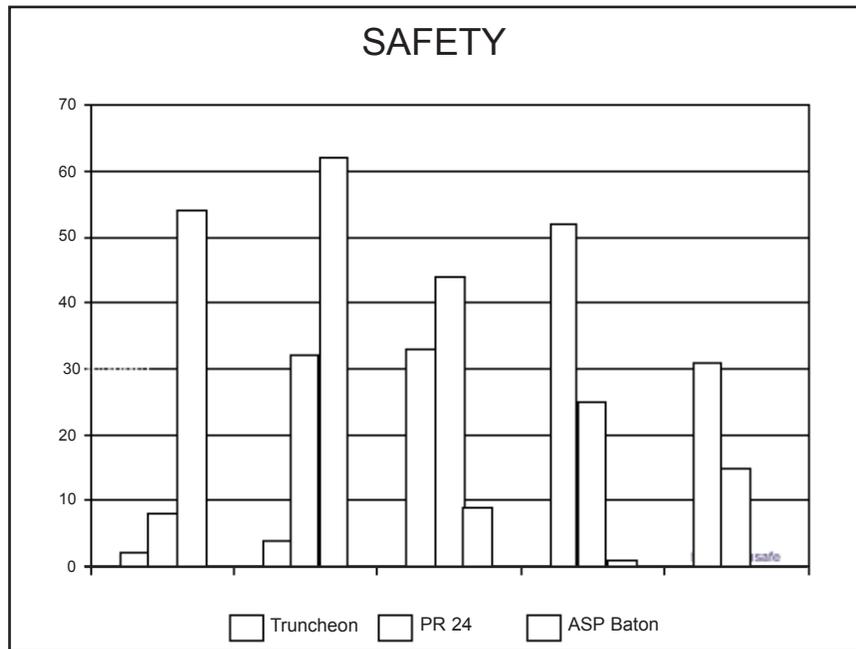
This survey supports the introduction of the ASP.

Respondents were asked several questions and expressed their feelings by indicating a number from one to five, where one represented the best or most desired result and five the worst or least desired result.

The results were as follows:

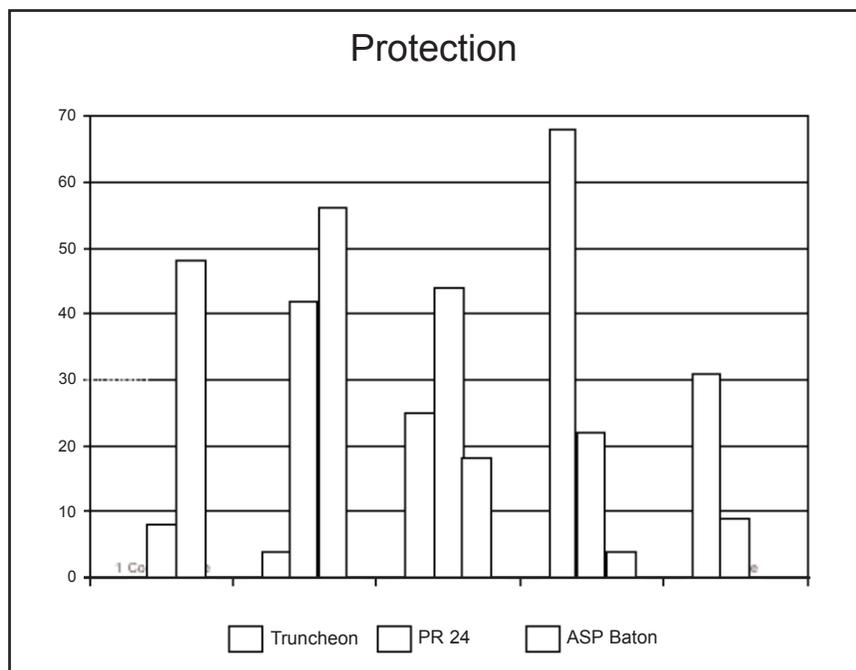
Question 1.

Feeling of safety with each piece of equipment

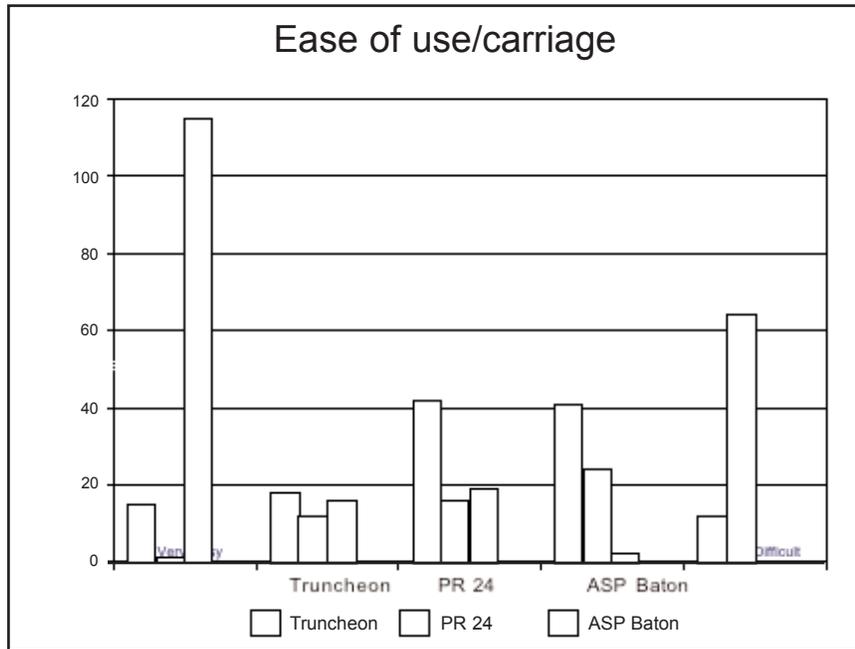


Question 2.

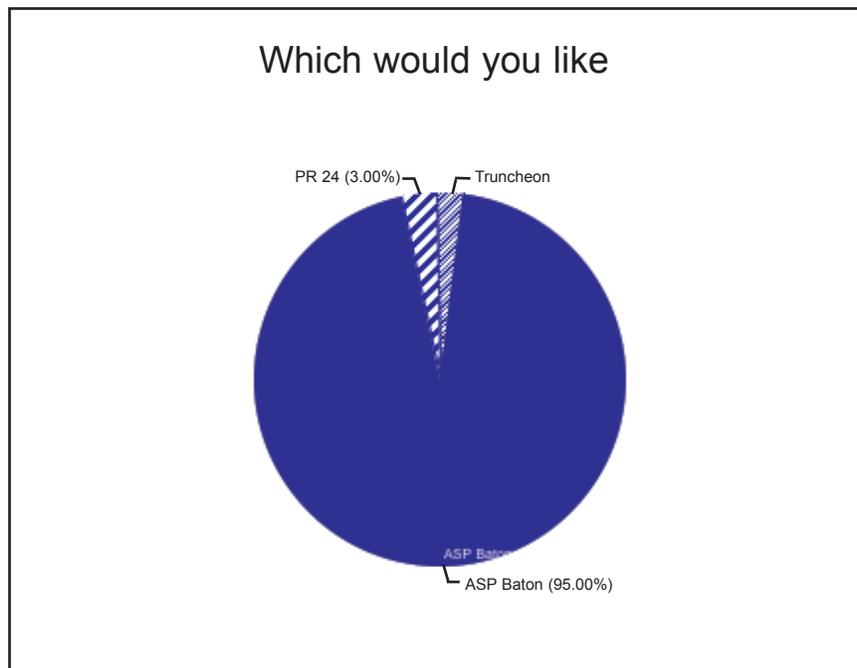
Protection offered by each piece of equipment



Question 3. Ease of Carriage



Question 4. Personal preference



6. SUMMARY

To summarise, I am of the view that the ASP baton is worthy of 'field trials' and further evaluation, with a view to considering its introduction in this force.

I am of course aware that the trials of the PR 24 in various forces have been suspended, as the result of concerns expressed on the weapons usage.

The National Federation of Police Officers are still supporting the introduction of the PR 24. Fortunately the Joint Branch Board of the Avon and Somerset Police Federation do not share the national viewpoint and have already given support and assistance for the introduction of the ASP Baton in this force.

Because of public concerns there is no doubt that the release of information to the media of the trial of the ASP requires a sensitive but positive approach in order that public worries are alleviated.

Our public image is important and there is no doubt that 'first impressions' will be those that last.

Avon and Somerset Police have on numerous occasions voiced its concerns both for the safety of the public and for its police officers and has the reputation of being an innovative force.

If trials/evaluation proves the weapon's success, let ASP be the name for the future: Avon and Somerset Police.

QUESTION 2.

- a) What protection do you feel the police truncheon offers to you in an event of an assault?

1 2 3 4 5

- b) What protection would the ASP offer you?

1 2 3 4 5

It is considerable
protection

No protection

- c) What protection would the Night Stick offer you?

1 2 3 4 5

It is considerable
protection

No protection

QUESTION 3.

Ease of Usage/Carriage

- a) Describe below your view of each equipments' carriage and accessibility

- i) Truncheon

1 2 3 4 5

Easy to Carry

Very difficult
to carry

QUESTION 5.

a) How many times in the last 5 years have you had to use your truncheon to defend yourself?

- i) Never
- ii) Seldom (once a year)
- iii) Sometimes (2 to 6 times per year)
- iv) Often (more than once per month)

b) How many times in the last 5 years have you used your truncheon for other lawful purposes (eg: entry to houses)?

- i) Never
- ii) Seldom (once a year)
- iii) Sometimes (2 to 6 times per year)
- iv) Often (more than once per year)

- I am Male
- Female
- Uniformed
- Plain Clothed

Please outline any further comments you have relating to the issue of protective equipment as outlined above.

Many Thanks for your assistance