



## SURVIVAL PAPER #SP90-2

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# TACTICAL BODY ARMOR

by Michael Ironwolf

### “DEATH OF A SURVIVALIST – ONLY LAPSE PROVED TO BE HIS LAST”

The title of this article in the January 20, 1990 issue of the Los Angeles Times is self-explanatory. The man in question, a professional trainer of K-9 security dogs, was known to have a high level of survival awareness. While making arrangements to supply two German Shepherd puppies to a client, Ken Obney, of Obney Shepherd, Inc., was assassinated by an unknown gunman. On this particular day, Mr. Obney made the mistake of leaving his .38 caliber revolver and his Kevlar vest on the floor of his Chevy Blazer.

The damage inflicted upon the human body by modern firearms is nothing short of amazing. To most people, the idea of a “little” bullet no larger than a pinto bean, wounding or killing someone, is a little hard to understand. Why, “little” 22 caliber bullets make such nice little holes in the bullseye, don't they? Personal experience will quickly remedy those opinions. Only combat experienced soldiers and emergency medical professionals really understand what a bullet can do to human tissue and just how many gallons of blood are inside a human being.

In any survival situation where firearms are required to protect yourself and your family, many times “standard” military tactics will need to be UNLEARNED. Remember: CASUALTIES ARE UNACCEPTABLE! You and your group should understand military tactics because at some time they almost certainly will be used against YOU. However, for the defense of your group, the concepts of guerilla warfare should be studied and practiced on a routine basis. Part of being a good resistance fighter is taking advantage of every piece of technology that the enemy possesses. This includes the use of tactical body armor. It has been estimated that in any combat situation, 80% of all casualties are produced by shrapnel weapons (artillery, bombs, mines and grenades).

What is “body armor”? Modern body armor, originally designed for military use as the famous “flak jacket”, is any piece of clothing composed of various materials whose main job is the slowing down or stopping of high speed projectiles (shrapnel, bullets, etc.). Original military designs consisted of an outer carrier (cotton, canvas or nylon) containing panels or plates composed of steel, aluminum, titanium, ceramic composites or ballistic nylon. Even today, titanium/ceramic composite panels are worn by helicopter pilots in combat situations. Body armor is usually worn as torso protection utilizing a “jacket” or “vest” type carrier, although undergarments for groin protection are also available. In addition, the U.S. military is currently issuing a protective helmet consisting of 19 layers of Kevlar laminated into one structure.

Modern body armor is considered to be projectile “resistant” within the design level of the garment. At NO time is a garment EVER to be thought of as “bulletproof”. Remember that body armor in an affordable price range that is light enough to wear continuously WILL NOT protect against any normal round from a modern battle rifle. Kevlar garments will, to the design specification of the panel, protect against shrapnel and certain handgun rounds.

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Engineers of tactical body armor almost universally utilize the high-tech fiber Kevlar for their designs. Kevlar is a synthetic fiber five times stronger than an equal weight of steel. It has high stretch resistance and a breaking strength of 490,000 pounds per square inch. This new version of the fiber, called Kevlar 129, produces a vest 20% lighter and 25% thinner than the original Kevlar 29 product.

When considering the variables in selecting body armor for your personal use, it would seem that “bigger” is better” and one would hope for many inches of Kevlar between a bullet and oneself. This is true to a point; however, in reality, things are sometimes different. Armor thickness is important, but so too is the fact of usage. Polls conducted by armor manufacturers of police officers indicate an important fact that only 20-25% of the officers wore body armor at any one time. It seems that even professionals would rather be comfortable (and DEAD) than be subjected to a little discomfort. Thus a balance must be determined between optimal protection and acceptable weight.

The design specifications of body armor fall into certain rating categories depending upon the highest calibers and velocities of a number of ammunition types that the armor protects against. These rating categories are standardized by The National Institute of Justice (NIJ). The following chart is a representative of the data included in manufacturers’ product brochures.

Threat Level	Bullet Type	Barrel Length	Velocity (FPS)
II A	12 Gauge “00” buck	20 “	1297
	38 cal Special JHP+P	6”	1235
	.357 Mag 158 g. JSP	4”	1250
	.41 Mag 210 g Lead	8.5”	1080
	9mm 124 g FMJ	4”	1090
II	.357 Mag 158 g JSP	6”	1395
	.41 Mag 210 g Special	4”	1300
	9mm 124 g FMJ	5”	1175
	.44 Mag 240 g Lead	8.5”	1450
III A	.44 Mag 240 g SWC	6”	1400
	9mm 124 g FMJ	9.5”	1400

As briefly discussed earlier, two main types of body armor are commonly available to the survivalist, that being commercial law enforcement and military contract overrun (surplus). We will discuss the role that each type performs in the life of the survivalist as well as sources of supply of each type.

Until the adoption of Kevlar body armor several years ago by the military, products produced for the law enforcement market were the only choice available. To the present day, armor products for police are the lightest, most effective and comfortable protective garments available. Remember that body armor consists of a cloth (nylon) carrier into which Kevlar panels are inserted. New designs are available that utilize a cotton T-shirt design that is very comfortable as well as concealable. The commercial design should be considered the primary type of protective armor for the survivalist. In addition to the flexibility of lightweight and comfort, commercial body armor can be upgraded to higher threat levels with the addition of more ballistic panels and/or hardened steel strike plates. Prices in the \$250-350 range should be considered common.

Law Enforcement body armor products are available from the following manufacturers:

Second Chance, Inc. PO Box 578 Central Lake, MI 49622	Armo Tech PO Box 276524 Sacramento, CA 95827	Point Blank 185 Dixon Ave Amityville, NY 11701
Silent Partner 612-18 Third St Gretna, 70053	Safariland, Inc. 1941 S. Walker Ave Monrovia, CA 91016	Prot Materials 7914 Queenaire Dr Gaithersburg, MD 20879

Other types of projectile resistant products such as sniper shields, ballistic clipboards and bulletproof tires are available from:

Pro-Tech Products 20 Keeler St Pittsfield, MA 01201	Rodgard Corp 1355 Clinton St Buffalo, NY 14206	Donovan Tech 5 Melrose Ct Hamden, CT 06518
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Military surplus and contract overrun “flak” jackets are sometimes available at surplus stores and gun shows. Two types of jackets are commonly found, the Viet Nam era and the current issue. The Viet Nam era vest can be recognized by the O.D. green nylon carrier and somewhat “lumpy” appearance of the garment. This “washboard” appearance is due to the ballistic nylon plates internal to the design. This is considered the last choice in body armor due to the low threat level provided. Pay no more than \$40 for a specimen in good/excellent condition.

**\*\*NOTE\*\*** This is a “shrapnel only” device and will NOT stop even the smallest caliber handgun!

The new issue Kevlar military “flak” jacket can be recognized by the woodland camouflage nylon carrier. The carrier is able to be adjusted within certain limits and contains ballistic panels of Kevlar 29. It is designed to be worn on top of the BDU shirt but under the load bearing equipment. These vests are designed to protect against shrapnel of “approximately 22 caliber at a velocity of approximately 2100 feet per second” as tested using a projectile simulator of some sort. This should also be considered shrapnel protection; however, it is reported that protection is also afforded against certain small arms (unknown caliber). These garments are available in good/excellent condition for prices around \$75-\$150. The best places to look are gun shows and Shotgun News ads.

The U.S. military also has a new standard issue helmet called the PASGT (Personal Armor System Ground Troops) “Fritz” helmet. It’s called the “Fritz” helmet because the design is similar to that as worn by the German army in WWII. However, that is where the similarity ends. The new “Fritz” is composed of 19 layers of Kevlar laminated into 1 shell and will protect against point blank hits of .38, 9mm and .45 ACP! This should also be considered a top priority.

The PASGT helmet is available from:

Sierra Supply P.O. Box 1390 Durango, CO 81302	Small (7) Medium (7-1/2) Large (7-3/4) Shipping	\$70 \$70 \$80 \$ 6
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In addition to the obvious protective value afforded by the PASGT body armor system, during a survival situation should you ever be confronted by renegade government troops in a firefight, the extra seconds gained by being dressed similar to those troops may be enough to allow you to escape or defeat them.

Should you find that local police supply stores or body armor manufacturers will not sell their products to “the public”, write to the manufacturer and request a list of distributors. Then make your purchases through your friendly F.F.L. holder for cost + 10%. If you don't have an F.F.L. dealer, then you can write:

Southern Public Safety Equipment  
5223-A West Market Street  
Greensboro, NC 27409

Second Chance 20% Off Retail

When considering your body armor purchase, compare the cost of a good vest (\$350) (about the cost of a nice color TV) to that of a new liver (\$250,000), lungs (\$200,000) or heart (sorry, you lose!).

**REMEMBER – Your mind is your primary weapon. USE IT!**