Equipped To Survive

SHOT Show 2007 Report - LED Flashlights
by
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2007 is the year that LED technology has come of age. Once a novelty of the flashlight offerings, LEDs are now mainstream. Major manufacturers are now offering weapon mounted lights using LEDs, an application where LEDs were all but absent a few years ago. As in years past, this year LED lights once again got smaller, brighter, lighter and smarter. There is no doubt in my mind that the future of LED technology is the future of flashlight technology. The future looks bright (pun intended).

2007 SHOT SHOW
Shooting, Hunting, Outdoor Trade Show and Conference
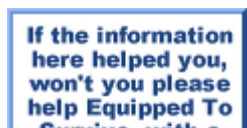Sponsored by The National Shooting Sports Foundation, Inc.
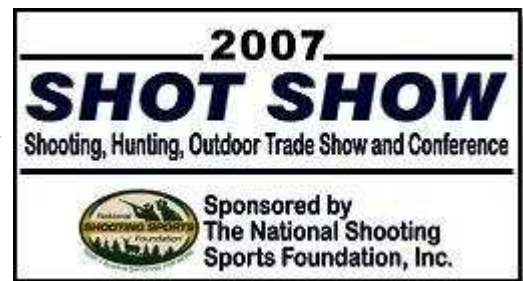
It wasn't too long ago that if you wanted a pocket-sized light your choices were limited to weak beamed lights with short battery life. I can still remember when an incandescent Mini-Maglite was considered state of the art. How the times have changed, especially in the past few years. LED lights, some smaller than a Quarter, have become commonplace on key chains across the country. Pocket-sized LED Lights are available that produce more light then a two D-cell incandescent flashlight. LED lights aren't new; the technology has been advancing since the 1990's, but they are quickly becoming ubiquitous.

2007 also seems to portend the final gasps of the incandescent headlamp. Many headlamps are now available that are not only bright enough for rescue work, but will also run all night on a single set of batteries. Headlamps were a light for specialty use only a few years ago, but as they get smaller and brighter they are gaining a bigger portion of the light market every year. After all, what's not to like about having both hands free to work with and a light that automatically points wherever you look.

The lights reviewed here are those I thought the majority of the readers of this website would be interested in. Most of the lights are LED, but I did included a few non-LED flashlights that I thought were interesting. The specifications published are those provided by the manufactures. Some manufacturer's were more responsive to information and image requests and this is reflected in the amount and quality of images in this review.

Prices quoted are manufacturer's suggested retail price as of January, 2007, rounded to the enarest whole dollar. Many lights covered here can be purchased at significantly discounted prices from those quoted, though not all. In some cases, items will not be available until much later this year. When we have been given an expected production date, we have included it, but manufacturers often miss such targets and many others do not provide one.

Assembling this SHOT Show Report is a major undertaking and was especially expensive with the show in Orlando this year. Without the support provided by generous ETS contributors who donated money to assist us and the sponsorship by

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Adventure Lights

Guardian

Manufacturer: Adventure Lights		**Model:** Guardian	
Body Material: Plastic		**Body Color(s):** Black	
Length: 1.625	**Width:** 1"	**Height:** 1.375"	**Weight[1]:** 0.7 oz.
Battery Qty: 2	**Type:** CR2032	**Runtime[2]:** 20 hours (steady) - 120 hours (flashing	
LED:		**LED Colors avail:** Greeen, Red, Blue, Yellow, White and IR	
Lumens Max: N/A	**Lumens Min:** N/A	**Brightness Levels:** 1	
Switch Type: Twist on/off		**Location:** Light dome	
In Production?: Avalible now		**MSRP:** $15	
[1] with batteries [2] @ max setting / @ min setting			

Adventure Lights offers a number of LED lights designed for signaling and marking locations. The tiny Guardian LED light isn't the most expensive model in Adventure Lights' offerings but it is somewhat of their flagship line. The Guardian series of lights is a rather diverse set of seemingly simple lights; a single LED bulb is turned on/off by turning the domed lenses. However, remove and reverse the polarity of the battery and your steady LED light is now a flashing signal light.

The included removable belt clip is the weak point of this light, I have tried to clip mine to a number of items without success. Adventure Lights does offer a number of unique attachment options and accessories (including a water-activation switch). I found that using zip-ties you can secure the light to just about anything you can wrap a zip-tie around.

The Guardian Lights seem to be durable and are rated waterproof to 300 feet, increasing the potental applications of this light.

Blackhawk Products Group/Night-Ops

Blackhawk Products Group's lighting division, Night-Ops, introduced a number of new LED lights for 2007. While Blackhawk's focus has historically been on military and law enforcement customers, their 2007 offerings has expanded to find entire product-lines dedicated to other markets. Their lighting line is still primarily oriented towards the tactical user, but a few new lights are obviously designed with the everyday carry user or outdoorsmen in mind.

Sentinel PL1

Manufacturer: Night-Ops		**Model:** Sentinel PL1		
Body Material: Anodized Aircraft Grade Aluminium		**Body Color(s):** Black		
Length: 3.66"	**Body Dia:**	**Bezel Dia:** 1.10"	**Weight[1]:** 1.94oz	
Battery Qty: 1	**Type:** CR123A	**Runtime[2]:** 3 hrs		
LED: 1 Watt	**LED Colors avail:** White			
Lumens Max: 35	**Lumens Min:** 35	**Brightness Levels:** 1		
Switch Type: Momentary Push/Constant Click			**Location:** Tailcap	
In Production?: Available now			**MSRP:** $100	
[1] with batteries [2] @ max setting / @ min setting				

Night-Ops' Sentinel PL1 uses a single CR123 battery to produce 35 lumens and 3 hours of run-time. This light is small enough to fit in your pocket for everyday carry. Its pocket clip seemed too short to keep it secure when clipped into a front pants pocket but it held it onto a baseball cap brim perfectly.

Sentinel PL1-AA

Manufacturer: Night-Ops		**Model:** Sentinel PL1-AA		
Body Material: Anodized Aircraft Grade Aluminium		**Body Color(s):** Black		
Length: 6.3"	**Body Dia:**	**Bezel Dia:** 1.1"	**Weight[1]:** 3.88oz	
Battery Qty: 2/TD>	**Type:** AA	**Runtime[2]:** 3 hrs		
LED: 1 Watt	**LED Colors avail:** White			
Lumens Max: 35	**Lumens Min:** 35	**Brightness Levels:** 1		
Switch Type: Momentary Push/Constant Click			**Location:** Tailcap	
In Production?: Avalible now			**MSRP:** $140	
[1] with batteries [2] @ max setting / @ min setting				

Similar to the Sentinel PL1, the Sentinel PL1-AA uses two "AA" batteries to achieve the same performance in a slightly bigger package. This light is a good option for users who want a durable metal-bodied LED light that runs off of "AA" batteries. This version does not come with the pocket clip.

Ally PL-3

Manufacturer: Night-Ops		**Model:**Ally PL-3	
Body Material: Anodized Aircraft Grade Aluminium		**Body Color(s):**Black	
Length: 5.04"	**Body Dia:**	**Bezel Dia:** 1.1"	**Weight[1]:**2.46oz
Battery Qty:2/TD>	**Type:**CR123A	**Runtime[2]:** 4 hrs	
LED: 3 Watt	**LED Colors avail:**White		
Lumens Max: 65	**Lumens Min:** 65	**Brightness Levels:**1	
Switch Type: Momentary Push/Constant Click		**Location:** Tailcap	
In Production?: Avalible now		**MSRP:** $165	
[1] with batteries [2] @ max setting / @ min setting			

Night-Ops' Ally PL-3 is both bigger and brighter then the Sentinel at 65 lumens with 4 hours of run-time on a set of two CR123 batteries. The body of the Ally PL-3 has deep, somewhat aggressive checkering. The light was more comfortable in my hand then I thought it would be, but it was difficult to get into and out of my front pants pocket.

Ally PL-3X

Manufacturer: Night-Ops		**Model:**Ally PL-3X	
Body Material: Anodized Aircraft Grade Aluminium		**Body Color(s):**Black	
Length: 5.04"	**Body Dia:**	**Bezel Dia:** 1.1"	**Weight[1]:**2.46oz
Battery Qty:2/TD>	**Type:**CR123A	**Runtime[2]:** 2 hrs (high)-20 hrs (low)	
LED: 3 Watt	**LED Colors avail:**White		
Lumens Max: 12	**Lumens Min:** 50	**Brightness Levels:**2	
Switch Type: Bi-level momentary push/twist		**Location:** Tailcap	
In Production?: Avalible now		**MSRP:** $170	
[1] with batteries [2] @ max setting / @ min setting			

The Ally PL-3 also has a sister light. The Ally PL-3X is a two-power version of the PL-3. The lights are virtually identical on the outside, but the Ally PL-SX gives the user the option of a low-power output setting of 12 lumens (20 hour run-time) or a high –power setting of 50 lumens (2 hour run-time).

Brunton

L5

Manufacturer: Brunton		**Model:** L5	
Body Material: Plastic		**Body Color(s):** Silver	
Length:	**Width:**	**Height:**	**Weight[1]:** 4 oz.
Battery Qty: 1	**Type:** 4.5Ah NiMH Rechargable	**Runtime[2]:** 15 hours (steady) - 50 hours (powersave)	
LED: Luxeon K2	**LED Colors avail:** White		
Light Distance Max:246'	**Lumens Min:** N/A	**Brightness Levels:** 3	
Switch Type: push button		**Location:** light head	
In Production?: Avalible now		**MSRP:** $195	
[1] with batteries [2] @ max setting / @ min setting			

Brunton added to their line of LED headlamps with the 5-watt Luxeon K2 L5. Improving on the performance of the 3-watt L3 Brunton introduced last year, the L5 will illuminate out to 246 feet. Brunton does not rate their lights by lumen output, but this headlamp was far brighter than the flashlight rated at 60 lumens I had with me. The one drawback to the L5 is its use of a rechargeable NiMH battery pack. Brunton states the L5 will run for 15 hours on high power or 50 hours on a lower "powersave" setting. If access to power for recharging is not an issue, the L5 is a great choice if you need a super-bright headlamp. If you need a headlamp that runs on batteries, Brunton's L3—which runs off of your choice of four "AA" batteries or four "C" batteries—would be a better choice.

eGear

XT-100

Manufacturer: eGear		**Model:** XT-100	
Body Material: Anodized aircraft grade aluminium		**Body Color(s):** Black	
Length: 5.2"	**Body Dia:** 1"	**Bezel Dia:** 1.2"	**Weight[1]:** 3.6 oz.
Battery Qty: 2	**Type:** CR2032	**Runtime[2]:** 10 hours	
LED: Luxeon K2	**LED Colors avail:** White		
Lumens Max: 100	**Lumens Min:** 100	**Brightness Levels:** 1	
Switch Type: Twist on/off		**Location:** Tailcap	
In Production?: May 2007		**MSRP:** $65	
[1] with batteries [2] @ max setting / @ min setting			

EGear's XT-100 Tactical Torch is a 100 lumen anodized aircraft aluminum bodied flashlight. The XT-100 is a simple to operate light with only one brightness setting, like many tactical lights it uses a momentary push button switch that can be twisted for constant on use.

XT-130

Manufacturer: eGear		**Model:** XT-130	
Body Material: Polymer		**Body Color(s):** Black	
Length: 5.1"	**Body Dia:** 1"	**Bezel Dia:** 1.2"	**Weight[1]:** 4 oz.
Battery Qty: 2	**Type:** CR2032	**Runtime[2]:** 10 hours	
LED: Luxeon K2	**LED Colors avail:** White		
Lumens Max: 130	**Lumens Min:** 130	**Brightness Levels:** 1	
Switch Type: Twist on/off			**Location:** Tailcap
In Production?: May 2007			**MSRP:** $45
[1] with batteries [2] @ max setting / @ min setting			

EGear's XT-130 Tactical Torch is identical in operation to the XT-100, but that and the logo on the side is where the similarities end. The polymer bodied light produces a reported 130 lumens of light. Both the XT-100 and XT-130 are sealed for water resistance and each have a rated runtime of 10 hours. The only reason I can see to purchase the XT-100 over the XT-130 would be the aluminum body, having not test the polymer case of the XT-130 I cannot vouch for its durability but polymer bodied lights from a number of manufactures have proven to be up to all but the most extreme conditions.

Headstream K2 Headlamp

Manufacturer: eGear		**Model:** Headstream K2 Headlamp	
Body Material: Polymer		**Body Color(s):** Black	
Length:	**Body Dia:**	**Bezel Dia:**	**Weight[1]:** 216gm
Battery Qty: 3	**Type:** AA	**Runtime[2]:** 16 hrs (max) - 70 hrs (min)	
LED: Luxeon K2	**LED Colors avail:** White		
Lumens Max: 85	**Lumens Min:** 21	**Brightness Levels:** 3	
Switch Type: push button			**Location:** headlamp
In Production?: Feb 2007			**MSRP:** $50
[1] with batteries [2] @ max setting / @ min setting			

Continuing on with the Luxeon K2 bulb, eGear introduced an interesting headlamp, the Head Stream Luxeon K2 Headlamp. This headlamp offers the user or 3 solid output settings, from 21 Lumens (70 hours runtime) at low power to an incredible 85 Lumens (16 hours runtime) at high power, and a safety flash mode (35 hours runtime).

Independent of the primary K2 LED, the Head Stream has a red LED bar across the battery case with a

constant on or flashing setting. This added feature allows the user to be visible from behind even if the primary LED isn't running. I can see this feature very useful for trail runners, hikers (especially in groups) and as well as emergency workers.

EGear also offers a 1 Watt Luxeon LED version of the Head Stream Headlamp, physically identical but with reduced output and runtime (52 Lumens for 15 hours on high, and 50 hour run time on low). The 1 Watt version is available now, with the K2 version available in the near future.

S-2

Manufacturer: eGear			Model: S-2	
Body Material: Anodized aircraft grade aluminium			Body Color(s): Black	
Length: 5.5"	Body Dia: 0.75"		Bezel Dia: 1.1"	Weight[1]: 4.6oz
Battery Qty: 2	Type: AA		Runtime[2]: 90 min	
LED: 3-Watt	LED Colors avail: White			
Lumens Max: 80	Lumens Min: 80		Brightness Levels: 1	
Switch Type: Momentary push/constant twist			Location: Tailcap	
In Production?: Avalible			MSRP: $45	
[1] with batteries [2] @ max setting / @ min setting				

Although not using the Luxeon K2 bulb, eGear's S-2 Tactical Torch is worth mentioning. It isn't often you see a light rated at 80 lumens running off of two "AA" batteries. Using a 3 Watt Luxeon bulb, the S-2 is reported to have a runtime of 90 minutes with a regulator to maintain a constant brightness throughout the battery life. Like the other tactical lights eGear offers, the S-2 has a constant twist on switch with a momentary push button.

Elusive Wildlife Technologies

illumitacks

Manufacturer: Elusive Wildlife Technologies		Model: illumitacks	
Body Material: Brass		Body Color(s): Silver/Gold	
Height: 0.31"	Body Dia:0.31"	Bezel Dia:	Weight[1]: 2 gm
Battery Qty: 2	Type: CR927	Runtime[2]: 48 hrs	
LED: 1 Watt	LED Colors avail: White, Green, Red, Orange, and Blue		
Lumens Max:	Lumens Min:	Brightness Levels:1	
Switch Type: Twist		Location: Body	
In Production?: Available now		MSRP: 5 for $15	

Elusive Wildlife Technologies had one of those "Why didn't I think of that!" products at SHOT this year. Their product line is based upon various applications of **tiny** LED lights they call illumitacks. These tiny LEDs are similar to the small lights you can find at a novelty store sold as body lights for "ravers," but these are significantly brighter than any of the novelty lights that I have seen. These tiny lights are slightly smaller in diameter then an "AAA" and about ½" tall! Two CR927 lithium (originally designed for hearing aids) power the tiny light for up to 48 hours. A small but very powerful magnet is inside the watertight case so the light can be attached to anything magnetic. A second loose magnet is included so that the light can be attached to any thin non-magnetic article (like a shirt or leaf). Elusive Wildlife Technologies offers their illumitacks in a variety of colors in both steady and flashing versions.

Elusive Wildlife Technologies has adapted these small lights to be used as safety lights, **trail markers** and even emergency trailer and boat navigation lights. I have to admit that while intrigued, I was originally more than skeptical when I saw these on their website but after seeing them in person I am impressed. The green solid version, which is the brightest of their offerings', is bright enough to read a map, set up a hasty camp or any other simple task where close-in lighting is needed.

It is not the most advanced LED light, but is a nice inexpensive lighting option for marking a trail or emergency lighting. Elusive Wildlife Technologies offers a number of packages for various applications, and at $15 for a set of five, losing one isn't a heartbreaking experience. I already have multiple applications in mind for these, many of which involve replacing chemical light sticks with them in applications like marking team members and students on night training exercises.

Just make sure to keep them away from your compass—strong magnets and compasses don't mix very well.

Kriana / Krill Lighting Products

Krill Lighting Products have expanded their offerings with three new electroluminescent lightsticks. Krill's lightsticks are a unique product, using an electroluminescent panel wrapped inside a clear polycarbonate tube to produce a product that is similar to a chemical lightsticks on only appearance and application. While chemical lightsticks are limited to set run time of anywhere from 5 minutes to 12 hours, Krill's lightsticks will run for hours on end, up to 120 hours on a single set of batteries for some models. This extended run-time coupled with the ability to turn the Krill Lightsticks on/off increase the usability of their product line well beyond the disposable chemical lights.

Torch

The Krill Torch is a 14" tall version of the original AA Krill Light that produces over twice the light of the AA Krill Extreme Light. A Krill Torch in green, hanging from the peak easily illuminated a six-person tent with enough light to play poker by. The Krill Torch is **large** and better suited for emergency preparedness in the home or vehicle versus a personal survival kit.

Mini

Manufacturer: Krill Lighting Products			Model: Mini	
Body Material: Plastic			Body Color(s): Light Color	
Height: 4.75"	Body Dia: 0.5"	Base Dia: 0.75"	Weight[1]: 1.25 oz.	
Battery Qty: 2	Type: AAA	Runtime[2]: 25 hours		
LED:Electroluminescent panel/TD>	LED Colors avail: green, blue, white, and red			
Lumenx Max:N/A	Lumens Min: N/A	Brightness Levels: 1		
Switch Type: Twist			Location: Base cap	
In Production?: Avalible now			MSRP: $25	
[1] with batteries [2] @ max setting / @ min setting				

On the other end of the spectrum, the AAA Krill Mini is the perfect sized for a personal survival kit. The AAA Krill Mini is as bright as the AA Krill Extreme Light but has about half the run-time. A pocket sized AAA Krill Mini in orange provided enough light to read a map and write an EMS encounter form.

Strobe

Manufacturer: Krill Lighting Products			Model: Strobe	
Body Material: Plastic			Body Color(s): Light Color	
Height: 5.125"	Body Dia:0.75"	Base Dia: 1.16"	Weight[1]: 2.75 oz.	
Battery Qty: 2	Type: AA	Runtime[2]: 120 hours		
LED:Electroluminescent panel/TD>	LED Colors avail: green, blue, white, orange, yellow, red and IR			
Lumenx Max:N/A	Lumens Min: N/A	Brightness Levels: 1		
Switch Type: Twist			Location: Base cap	
In Production?: Avalible now			MSRP: $25	
[1] with batteries [2] @ max setting / @ min setting				

The AA Krill Strobe is a flashing version of their AA Krill light. Available in both the Original and Extreme output versions, the Krill Strobe Light nearly doubles the run-time of their steady light versions.

Less versatile then the other Krill Lights, this light is a good option when marking/signaling light is needed with extended run-time.

Krill also offers a **replacement tail cap** that allows the Krill to be swung as a signal light. While I have never had this problem when swinging my AA Krill Extreme, it has been reported that Krill lights will shut off as they are swung. This new optional tail cap fixes this problem.

Nite Ize

1-Watt Luxeon Mini-Maglite Upgrade

Manufacturer: Nite Ize		Model: 1-Watt Luxeon Mini-Maglite Upgrade	
Body Material: Plastic		Body Color(s): Silver	
Length:	Body Dia:	Bezel Dia:	Weight[1]:
Battery Qty: 2	Type: AA	Runtime[2]: 6.5 hrs (high) - 32 hrs (low)	
LED: 1-Watt Luxeon	LED Colors avail: White		
Lumens Max:	Lumens Min:	Brightness Levels: 3	
Switch Type: N/A		Location: N/A	
In Production?: Avalible		MSRP: $10	
[1] with batteries [2] @ max setting / @ min setting			

Nite Ize doesn't actually produce any complete flashlights but they do make some interesting upgrades for "AA" Mini-Maglites. Nite Ize has had an LED upgrade for the "AA" Mini-Maglite for a few years. The upgrade was pretty good, and gave new life to many Min-Maglites that had found themselves collecting dust in utility drawers and tool boxes. Every one of my "AA" Mini-Maglites has both a Nite Ize LED upgrade and their IQ switch.

This year, Nite Ize introduced a 1-watt Luxeon LED upgrade to their line of upgrades. Nite Ize does not rate their lights in lumens, but their 1-watt upgrade is significantly brighter than their standard LED upgrade. Unlike their original LED upgrade you can adjust the beam of the 1 watt version from spot to wide using the Mini-Maglite's bezel. Nite Ize is currently only avalible in white and is available for purchase alone or packaged with Nite Ize's IQ Switch Upgrade.

The IQ switch replaces the tail cap on an "AA" Mini-Maglite, giving the user a multi-function switch. The **IQ switch** offers five light modes including three steady light modes and two flashing modes. In conjunction with the 1-watt LED upgrade, the IQ switch gives the user 6.5 to 8 hours of run-time at the brightest setting, 13 to16 hours at the medium setting, and 32 to 36 hours at the lowest power setting. The bezel still operates as an on/off switch, functioning as a lock-out switch which prevents the light from turning on accidently. Whenever the bezel is rotated to an "on" position, a small red locator LED flashes in the tail cap.

NovaTac

EDC 85

Manufacturer: NovaTac		**Model:** EDC 85	
Body Material: Anodized Aircraft Grade Aluminium		**Body Color(s):** Dark Grey	
Length: 3.25"	**Body Dia:**1"	**Bezel Dia:**1"	**Weight**[1]**:** 3 oz.
Battery Qty: 1	**Type:** CR123A	**Runtime**[2]**:** 30 min to 10 days	
LED:	**LED Colors avail:** White		
Lumens Max:85	**Lumens Min:**0.3	**Brightness Levels:**22	
Switch Type: Push button		**Location:** tail cap	
In Production?: March 2007		**MSRP:** $160	
[1] with batteries [2] @ max setting / @ min setting			

NovaTac (who acquired HDS Systems in late 2006) introduced their new EDC 85 LED flashlight at SHOT Show this year. The obvious next step in the evolution of HDS's line of EDC lights, it is brighter, more versatile and simpler to operate than its predecessor, the EDC Ultimate 60. NovaTac also reports a brighter version of the EDC 85, the EDC 120 will be available in the near future.

The EDC 85 has 22 light output settings from 0.3 to 85 lumens and has the ability to ramp the brightness without going into the programming menu while still having four user-programmable quick-access brightness levels.

Users can select from three strobe settings—a blindingly fast disorienting strobe for defense and two emergency signaling strobe settings, including an SOS pattern. An upgrade from the EDC Ultimate 60 is that one of the stobe settings can be preset in place of one of the four preset brightness levels for quick access.

The EDC 85's single-button interface is much simpler to use for programming than previous versions. While the standard EDC 85 is delivered configured so the user can program all of the light's features, it is also available with a simplified user interface preprogrammed with features the customer wants and the others locked out. While I find the multi-faceted features of this light useful, if you are looking for a LED light that offers simple on/off operation, this light is likely not for you.

Continuing with the EDC line tradition, the EDC 85 is a compact pocket-sized light that is built to last. At the show, NovaTac had a light with them that was absolutely **pummeled**, but continued to work properly.

For the true techies out there, NovaTac offers a computer interface (USB) for the EDC 85. The computer interface replaces the tail cap for programming; once the light is programmed the computer interface is replaced with the original tail cap. A tube that converts the light for use with two "AA" batteries is also available as an optional accessory.

[Pelican Products](#)

MityLite 1990 1 Watt

Manufacturer: Pelican Products		**Model:** MityLite 1990 1 Watt	
Body Material: Plastic		**Body Color(s):** Black, Yellow	
Length: 5"	**Body Dia:** 0.5"	**Bezel Dia:** 0.65"	**Weight[1]:** 1.8 oz.
Battery Qty: 3	**Type:** N	**Runtime[2]:** 70 hours	
LED: 1 Watt	**LED Colors avail:** white		
Lumenx Max: 20	**Lumens Min:**	**Brightness Levels:** 1	
Switch Type: push button		**Location:** tail cap	
In Production?: Avalible now		**MSRP:** $30	
[1] with batteries [2] @ max setting / @ min setting			

Pelican Products introduced the 1990 MityLite LED light a few years ago. The reception of this light was not as one would expect, low output (although 150 hours of runtime was enough of a reason for me to buy one) and the use of "N" size batteries limited its popularity. This year Pelican released a 1 Watt LED version of the 1990. While the 1 watt version is twice as bright as the original, it still uses 3 "N" size batteries.

Pelican also had a prototype of a three-color 1990, a rotating bezel is added to the 1990's body allowing the user to select a green, red or white LED. The prototype looks very promising, reported to have the same 8 lumen output and 150 hours of run time as the original 1990 MityLite LED. Pelican was unsure when the light would be released.

PM6 3330

Manufacturer: Pelican Products		**Model:** PM6 3330	
Body Material: Xenoy polymer		**Body Color(s):** Black, Yellow, Tan	
Length: 5.27"	**Body Dia:** 0.75"	**Bezel Dia:** 1.1"	**Weight[1]:** 3.45 oz.
Battery Qty: 2	**Type:** CR123A	**Runtime[2]:** 40 hours	
LED: 1 Watt	**LED Colors avail:** white		
Lumenx Max: 41	**Lumens Min:**	**Brightness Levels:** 1	
Switch Type: push button		**Location:** tail cap	
In Production?: Avalible now		**MSRP:** $60	
[1] with batteries [2] @ max setting / @ min setting			

On a different front, in the middle of last year, Pelican introduced the PM6 3330 Polymer bodied LED tactical light. Two CR123 batteries power the light 40 Hours at 41 Lumens. Unlike so many inexpensive LED tactical style lights, Pelican uses a click on/click off push button that can also function in a momentary mode. These features combined with a price tag under $50 and Pelican's Lifetime Guarantee make this light an attractive choice.

Pelican offers their universal helmet mount for this light, an item I am wholly unimpressed with (as I am with every helmet clamp I have ever used) after snagging my light too many times to count.

Pentagon Lights

"MOLLE LIGHT"

Manufacturer: Pentagon Lights		**Model:** "MOLLE LIGHT"	
Body Material: Plastic/Anodized Aluminium		**Body Color(s):** Black,Tan	
Length:?	**Body Dia:**?	**Bezel Dia:**?	**Weight[1]:**?
Battery Qty: 1	**Type:** AA	**Runtime[2]:** ?	
LED:	**LED Colors avail:** White		
Lumens Max:	**Lumens Min:**	**Brightness Levels:** 1	
Switch Type: Push button		**Location:** Head	
In Production?: Summer 2007		**MSRP:** $35	
[1] with batteries [2] @ max setting / @ min setting			

Pentagon Lights has gain a reputation in its short history for making durable weapon-lights for the military and law enforcement. This year they offered a unique little LED light, the "MOLLE Light" is designed for the military, to give our soldiers an inexpensive task light to attach to the gear. This light is reminiscent of the old right angle military flashlight (albeit, about 10 times smaller), a anodized aluminum body is matted with polymer tail cap and lighting head.

The performance of this light isn't remarkable, but a couple feature make it worth mentioning; The user has a choice of a red, blue, green or amber filter that can be screwed onto the bezel or stored on the tail cap. A small button compass is imbedded in the tail cap. I was able to get limited information about the light from Pentagon, except that it is expected to be available this summer for around $35.

Petzl

e+Lite

Manufacturer: Petzl		**Model:** e+Lite	
Body Material: Plastic		**Body Color(s):** Red/Black	
Length: 1.5"	**Width:**1"	**Height:**0.625	**Weight[1]:** 27 gm
Battery Qty: 1	**Type:** CR2032	**Runtime[2]:** 45 hours	
LED:	**LED Colors avail:** White/Red		
Lumens Max:16	**Lumens Min:**?	**Brightness Levels:**3	
Switch Type: Rotary Switch		**Location:** face	
In Production?: Avalible		**MSRP:** $30	
[1] with batteries [2] @ max setting / @ min setting			

Although introduced last summer at Outdoor Retailer, Petzl's e+Lite emergency light actually became available just before SHOT Show this year. The e+Lite is a **pocket-sized** LED headlamp that has **three white LEDs** and a smaller **single red LED**. Both color LEDs can be set to flash for signaling and the white LEDs have two brightness settings. According to Petzl, this light runs for 45 hours on two CR2032 coin-style batteries. The e+Lite can be worn as a headlamp using the included headband or can be clipped to a hat, shirt pocket or just about other thin object with the integrated wire clip.

The e+Lite comes with a **plastic protective belt/carrying case**, but a pivoting back panel protects the LED and switch when not in use should you choose to carry your e+Lite sans case. My e+Lite fits almost unnoticed in the coin pocket of my dress pants. In the few months I have had my e+Lite, it has become my everyday carry light at work for EMS calls and as a backup headlamp for everything else.

Last year Petzl also introduced their ADAPT system for the TacTikka XP and TacTikka. The ADAPT system gives the user three options for mounting or wearing the light. Included are a headlamp harness, belt/vest clip and an adhesive disk for mounting to a helmet. The light is easily removed from a mount by depressing a lever and sliding it off, re-attachment is just a reversal of the steps. The adhesive disk is a nice option; I have one mounted on my rescue helmet, removing the problem with headlamp straps slipping off the helmet or in my case, leaving the strap keepers available for goggles. While the adhesive disk is designed for a helmet, I found that mounting one on the ceiling of my truck gave me a great map light. Already have a Tikka XP or Tikka series light? Petzl offers the ADAPT kit for under $15 to upgrade your current light.

Princeton Tec

APEX Pro

Manufacturer: Princeton Tec		**Model:** APEX Pro	
Body Material: Plastic		**Body Color(s):** Black, Orange	
Length:	**Body Dia:**	**Base Dia:**	**Weight[1]:** 173gm..
Battery Qty: 2	**Type:** CR123	**Runtime[2]:** 35 hours	
LED:# Watt	**LED Colors avail:** white		
Lumenx Max:60	**Lumens Min:**	**Brightness Levels:** 4	
Switch Type: push button		**Location:** Top	
In Production?: Avalible now		**MSRP:** $70	
[1] with batteries [2] @ max setting / @ min setting			

Princeton Tec introduced a new version of the **Apex** headlamp at SHOT Show this year. The Apex Pro replaces the four "AA" batteries with two CR123s. The 60-lumen Apex Pro weighs a full 100 grams less than the Apex but run-time is reduced to 36 hours from 72 hours (alkaline) or 150 hours (lithium). Both the Apex and the Apex Pro have a single 3-watt LED for long-range lighting and a set of four 5mm LEDs for wide-angle close-in lighting. The 3-watt LED and the set of 5mm LEDs operate off of separate pushbutton switches, allowing them to be independently controlled. The Apexes have four lighting settings and a

safety flash mode for signaling. Princeton Tec has designed a heatsink into their headlamps, which they claim allow their lights to operate at the higher brightness settings for extended periods.

Torrent LED

Manufacturer: Princeton Tec		Model: Torrent LED	
Body Material: Plastic		Body Color(s): Blue, Black, Yellow	
Length: 7"(approx)	Body Dia: 2"(approx)	Bexel Dia: 2.5"(approx)	Weight[1]: 365gm
Battery Qty: 8	Type: AA	Runtime[2]: 30	
LED:3 Watt	LED Colors avail: white		
Lumenx Max:47	Lumens Min:	Brightness Levels: 1	
Switch Type: toggle switch		Location: body	
In Production?: Avalible now		MSRP: $50	
[1] with batteries [2] @ max setting / @ min setting			

The Torrent LED flashlight is a new addition to Princeton Tec's dive light line that should prove useful as a light for vehicle or home preparedness where space is not as much as issue as with personnel survival kits or every day carry. The Torrent will run for 30 hours on eight "AA" batteries at 47 lumens. The Torrent is also available in a Xenon version, with 115 lumens for five hours. Both lights are rated waterproof to 100m.

Pilot

Manufacturer: Princeton Tec		Model: Pilot	
Body Material: Plastic		Body Color(s): Grey/Red, Green, Black	
Length: 1"	Width: 0.75"	Height: 0.5"	Weight[1]: 15gm
Battery Qty: 2	Type: CR2016	Runtime[2]: 14	
LED:	LED Colors avail: white, green, and red		
Lumenx Max:2.1	Lumens Min:	Brightness Levels: 1	
Switch Type: push button		Location: body	
In Production?: Avalible now		MSRP: $10	
[1] with batteries [2] @ max setting / @ min setting			

Princeton Tec also has a simple little LED light called the Pilot. The Pilot is designed as a backup light to be attached to the headband of a headlamp but it can just as easily be attached to a backpack strap or MOLLE webbing. The Pilot sits securely in its clip base but can be removed to use as a handheld light.

nada

Photon/LRI

Proton

Manufacturer: Photon		**Model:** Proton	
Body Material: Type III Anodized Aluminium		**Body Color(s):** Black	
Length: 3.5"	**Body Dia:** 0.5"	**Bezel Dia:** 0.75"	**Weight[1]:** 42.3gm.
Battery Qty: 1	**Type:** AA	**Runtime[2]:** 1.5 - 250 hours	
LED:	**LED Colors avail:** White/Red		
Lumens Max: 50	**Lumens Min:** 1	**Brightness Levels:** infinite	
Switch Type: Push button		**Location:** body	
In Production?: Avalible		**MSRP:** $70	
[1] with batteries [2] @ max setting / @ min setting			

LRI/Photon introduced last year a light that is the quintessential everyday carry light. Small, light, and bright with adjustable output, the Proton LED light is the ideal size light for many everyday carry users. The Proton's **5 white LEDs** produce a reported 50 lumens for 90 minutes on a single "AA" Lithium battery . Once on, the white light can be ramped down through a seemingly infinite number of levels until the perfect setting is achieved for the task at hand. Similarly, push and hold the on switch and a **single Red LED** can be ramped up until the appropriate level of light is achieved. For both colors, should the button remain depressed once the final output setting is reached you can set the light to 4 different flash patterns (slow, medium, fast and S.O.S.). For 2007, LRI has improved on the battery contacts for the Proton, increased the thread body length for the tail cap and improved the hard anodizing, making the light more durable.

Surefire

For 2007 Surefire introduced only a few new personal lighting products, but they made some significant improvements in most of their LED lights. Utilizing Cree LEDs, Surefire was able to greatly increase run-time in some models and light output in others. The new LED lights no longer have the somewhat square-shaped beam of previous versions—the new beam is a more organic round shape.

G3

Manufacturer: Surefire		**Model:** G3	
Body Material: Nitrolon		**Body Color(s):** Black	
Length: 6.5"	**Body Dia:** 1"	**Bezel Dia:** 1.25"	**Weight[1]:** 5.5 oz
Battery Qty: 3	**Type:** CR123A	**Runtime[2]:** 20 - 60 min	
LED: Incandencent/Xenon	**LED Colors avail:** White		
Lumens Max: 200-105	**Lumens Min:** ?	**Brightness Levels:** 1	

BEAST HID

Manufacturer: Surefire		**Model:** BEAST HID	
Body Material: Anodized Aircraft Grade Aluminium		**Body Color(s):** Black	
Length: 15.5"	**Body Dia:** 2"	**Bezel Dia:** 4.5"	**Weight[1]:** 4.5 lbs.
Battery Qty: 20	**Type:** CR123A	**Runtime[2]:** 80min-2hrs(HID) - 20-32hrs (LED)	
LED: HID & LED	**LED Colors avail:** White/UV		
Lumens Max: 2,300	**Lumens Min:** 12	**Brightness Levels:** 2	
Switch Type: Rotary Switch		**Location:** Body	
In Production?: Avalible		**MSRP:** $4,800	
[1] with batteries [2] @ max setting / @ min setting			

If you wanted to, you could buy a 2,300 lumen HID flashlight from Surefire. The 5.5 pound, 19" long Beast HID light produces a blinding 2,300 lumens for an amazing 80 minutes utilizing 20 CR123 batteries, or a full 120 minutes utilizing the lithium ion rechargeable battery. The Beast includes 6 white LEDs and 6 UV LEDs which produce 12 Lumens for applications where 2,300 lumens may be a little much.

E1L Outdoorsman

Manufacturer: Surefire		**Model:** E1L Outdoorsman	
Body Material: Anodized Aircraft Grade Aluminium		**Body Color(s):** Dark Grey	
Length: 4"	**Body Dia:** 0.75	**Bezel Dia:** 1"	**Weight[1]:** 2.6 oz.
Battery Qty: 1	**Type:** CR123A	**Runtime[2]:** 17 hours	
LED: CREE	**LED Colors avail:** White		
Lumens Max: 30	**Lumens Min:**	**Brightness Levels:** 1	
Switch Type: Click on/off		**Location:** Tailcap	
In Production?: March 2007		**MSRP:** $99	
[1] with batteries [2] @ max setting / @ min setting			

E2L Outdoorsman

Manufacturer: Surefire		**Model:** E2L Outdoorsman	
Body Material: Anodized Aircraft Grade Aluminium		**Body Color(s):** Dark Grey	
Length: 5.25"	**Body Dia:** 0.75	**Bezel Dia:** 1"	**Weight[1]:** 3.5 oz.
Battery Qty: 2	**Type:** CR123A	**Runtime[2]:** 18 hours	
LED: CREE	**LED Colors avail:** White		

While a 2,300 lumen light is impressive, in my opinion, Surefire's upgrades to the E1L, E2L and the L1 were more so. New for 2007, the E1L improved on the previous version's 4 hours of operation at 25 lumens with 30 lumens of light for 17 hours. Similarly the 2007 E2L performance was upgraded from 30 lumens to 45 lumens with 18 hours of run-time versus the 4 hours of the 2006 version. The ExL series truly live up to Surefire's description as "Extended Runtime LED flashlights."

L1 Lumamax

Manufacturer: Surefire		Model: L1 Lumamax	
Body Material: Anodized Aircraft Grade Aluminium		Body Color(s): Dark Grey	
Length: 4.95"	Body Dia: 0.75	Bezel Dia: 1"	Weight[1]: 2.9 oz.
Battery Qty: 1	Type: CR123A	Runtime[2]: 1.5-16 hours	
LED:CREE	LED Colors avail: White		
Lumens Max:65	Lumens Min:10	Brightness Levels:2	
Switch Type: Bi-level momentary push/constant twist		Location: Tailcap	
In Production?: March 2007		MSRP: $135	
[1] with batteries [2] @ max setting / @ min setting			

Surefire improved on the dual output L1's performance by increasing output rather then run-time. The 2007 L1 produces10 lumens (low)/65 lumens (high) while the 2006 produces L1 1.1 lumens (low)/22 lumens (high). The L1 run-time decreased to achieve this output advancement—16 hours at low power and 90 minutes at high power.

L5 Lumamax

Manufacturer: Surefire		Model: L5 Lumamax	
Body Material: Anodized Aircraft Grade Aluminium		Body Color(s): Dark Grey	
Length: 6.1"	Body Dia: 1"	Bezel Dia: 1.47"	Weight[1]: 7.2 oz.
Battery Qty: 2	Type: CR123A	Runtime[2]: 4.5 hours	
LED:CREE	LED Colors avail: White		
Lumens Max:120	Lumens Min:	Brightness Levels:1	
Switch Type: Click on/off		Location: Tailcap	
In Production?: March 2007		MSRP: $189	
[1] with batteries [2] @ max setting / @ min setting			

Surefire also improved the L5, their larger LED "Combat Light." Similar to the xenon Z2 in body shape,

the L5 is a larger LED flashlight, too big for everyday carry in my opinion, but a 120-lumen LED with 4.5 hour run-time is worth mentioning.

Titan

Manufacturer: Surefire		**Model:** Titan	
Body Material: titanium		**Body Color(s):** satin finish, natural	
Length: 3.15"	**Bezel Dia.:** 0.75"	**Body Dia.:** N/A	**Weight[1]:** 1.9 oz.
Battery Qty: 1	**Type:** CR2	**Runtime[2]:** 50 hours	
LED:CREE	**LED Colors avail:** White		
Lumens Max:30?	**Lumens Min:**0.1	**Brightness Levels:**unlimited	
Switch Type: Rotating bezel		**Location:** bezel	
In Production?: March/April 2007		**MSRP:** $499	
[1] with batteries [2] @ max setting / @ min setting			

If you have a few hundred extra dollars lying around and are a LED light fanatic Surefire has a light for you. The Surefire Titan is an ideal everyday carry light, small, light and super bright. The only drawback I can see, and it is a big drawback, is the $500 price tag! Surefire rates the Titan at 30 Lumens currently but advise that the final product may push 70+ Lumens once they finish tweaking the LED module. The Titan uses a rotating bezel switch that adjusts through over a thousand output settings. The Titan has an integral tail cap treaded to fit most standard tri-pods so it can be used as temporary stationary lighting. The titanium body makes the light very durable and corrosion resistant.

The first 1000 of these lights will be made with a titanium body and numbered, which should be available in late March/early April. After those are gone, Surefire will start making these lights with aluminum bodies, which should drop the price, but by how much was not available. Vendors are taking pre-orders now, so if you want one, you better order one before they are gone.

Helmet Light

Manufacturer: Surefire		**Model:** Helmet Light	
Body Material: glass-filled nylon polymer and neoprene		**Body Color(s):** Tan	
Length: 2.6"	**Width:** 1.3"	**Height:** 2.2	**Weight[1]:** 3.1 oz.
Battery Qty: 1	**Type:** CR123A	**Runtime[2]:** 6-96 hours	
LED:	**LED Colors avail:** White/Blue/LED		
Lumens Max:19.2	**Lumens Min:**0.3	**Brightness Levels:**6	
Switch Type: Toggle Switch & push button		**Location:** top	
In Production?: Avalible		**MSRP:** $132	
[1] with batteries [2] @ max setting / @ min setting			

Also worth mentioning is Surefire HL-1. Designed as a helmet light for soldiers, the HL-1 can also be adapted to be worn on a MOLLE or similar tactical vest. The HL-1 has three white LEDs and two blue secondary LEDs. I find this light to be the perfect substitute for a headlamp when I need a light to read, write or work on a patient. An IR LED on the front is a nice feature for SAR for marking your location without a blinding light interfering with patient care.

UK International

eLED Mini-Pocket Light

Manufacturer: UK International		**Model:** eLED Mini-Pocket Light	
Body Material: Plastic		**Body Color(s):** Black, Blue, and Yellow	
Length: 2.9"	**Width:** 1.1"	**Height** 0.74"	**Weight[1]:** 1.3oz
Battery Qty: 2	**Type:** AAA	**Runtime[2]:** 10-15 hours	
LED:	**LED Colors avail:** white		
Lumenx Max:4	**Lumens Min:**	**Brightness Levels:**	
Switch Type: Twist		**Location:** Bezel	
In Production?: Avalible now		**MSRP:** $20	
[1] with batteries [2] @ max setting / @ min setting			

UK International (formaerly known as Underwater Kinetics) has been known for their line of quality dive lights. Three upgrades of lights that could be called legacy products for UK caught my attention this year. UK International's eLED Mini-Pocket Light and **eLED Pen Light S** are the same light in different packages. Both lights run on two "AAA" batteries for 14+ hours at 4 lumens. I have been using an eLED Mini-Pocket Light for about a year now at work and have found it to be a light and durable light prefect for patient care. The one feature I did not like was the clear plastic bezel, it was difficult to rotate when wet and wearing gloves. UK International has fixed this problem by covering the bezel with rubber.

eLED Zoom

Manufacturer: UK International		**Model:** eLED Zoom	
Body Material: Plastic		**Body Color(s):** Blue, Black, Yellow	
Length: 6.7"	**Body Dia:** 1.4"	**Bezel Dia:** 1.7"(approx)	**Weight[1]:** 6.2 oz
Battery Qty: 4	**Type:** AA	**Runtime[2]:** 5-25	
LED:2 Watt	**LED Colors avail:** white		
Lumenx Max: 40	**Lumens Min:** 13	**Brightness Levels:** 2	
Switch Type: push button or Bezel twist		**Location:** body	
In Production?: Avalible now		**MSRP:** $50	
[1] with batteries [2] @ max setting / @ min setting			

UK International has also added rubber covered bezels to the 40 lumen, 4 "AA" battery eLED Zoom and **Right Angle eLED Zoom** lights. Both of these lights allow the uses to adjust the beam from a narrow spot to a wide angle flood and two power settings These UL listed lights were designed for the emergency services and seem to be built suitably. The eLED Zoom is available in a Fire Light version that removes the push button on/off switch making it easier to operate while wearing heavy gloves.