

Illumination Par Excellence

Advancing technology – LED, battery, and other – enables manufacturers/marketers to continually improve the efficiency and cost of artificial illumination – from the floodlighting of mountains to the handy torch we use around camp. The JetBeam range of flashlights is a fine example of what is being done in the (very competitive) market for portable illumination.

JetBeam focus on the tactical (military and law enforcement) flashlight arena but hunters and other outdoor enthusiasts as well as ordinary homemakers all have need for one or more kinds of portable or emergency light such as provided by JetBeam products.

We received five JetBeams for testing all of which use LEDs manufactured by Cree, an industry leader that produces “next generation” LEDs capable of emitting extremely bright light. They are the palm-size Jet-I Pro which is 10.7cm long; the Jet-III MR2 measuring 14cm; the RRT-1 which measures about 16cm, the 20cm long M2S to which an extension can be fitted (to carry more batteries and extend battery run time) and the RRT-3. I’m not sure how they prove this, but LEDs have a claimed service life of 50 000 hours. All have ‘bodies’ made of aircraft-grade aluminium tough enough to protect their (expensive) high-tech innards from even heavy-handed treatment during military service.



The JetBeam test models – RRT-3, M2S, RRT-1, Jet-III M and Jet-I Pro.

While the amount of light these torches can emit is simply staggering, it does come at a cost and ‘full power’ is needed in comparatively few situations. In the ‘good old days’ torches were either on or off. And the ‘on’ light faded as the batteries grew weak. JetBeam torches have sophisticated circuitry to manage the power and are equipped with an IBS (Infinite Brightness Setting) circuit which allows the operator to adjust the brightness of the beam as needed. The multiple output mode also allows the user to select the strobe function. Some models employ a rotating ring for changing the output/modes while the brightness levels of others are adjusted by either turning the torch bezel or by clicking the power button in sequence. Rubber O-rings ensure that these torches are waterproof – I dunked them in our swimming pool and they survived unscathed.

The Jet-I Pro is powered by a single AA battery and is compatible with rechargeable batteries of the same size. It has three user-defined modes (high brightness, low brightness and warning signal) each of which can be customized. At full power/brightness (240 lumens) the battery’s total run time is 45min but when set very low (two lumens) it can be up to 50 hours. The instruction leaflet provides detailed instructions on how to programme and reset the Jet-I Pro. This little torch comes with a removable pocket clip. This JetBeam has a very powerful beam for its size and can illuminate objects up to 70m away.



Left: Three of the test models can be mounted on a rifle. The M2S is pictured here. **Below left:** The scars on the RRT-1 are clearly visible after it was run over by several cars on a freeway and subjected to further drop tests. It is still in perfect working order. **Below:** The attack or protection front lens bezel that fits onto the Jet-III M.





The Jet-III M (M for military) has a maximum output of 225 lumens and is powered by two CR123 batteries or one 18650 rechargeable Li-ion. Like the Jet-I, its power button is located in the tail cap and it has multiple modes and brightness levels which can be set as desired. Battery (with 2x CR123s) run time is about two hours at full brightness. With this torch we were able to illuminate and identify objects well over 100m. The Jet-III can be fitted with a cable pressure switch for convenient use when mounted on a rifle/handgun. It also comes with a two-way pocket clip. The stainless steel tail cap bezel can be used as a window punch and a special 'attack' or protection front lens bezel (R160) with extended 'teeth' is available as an accessory – it turns the torch into a formidable impact weapon.

The RRT-1 (Raid Response Tactical) allows the user to rapidly select any of the pre-programmed brightness level settings and strobe function by simply rotating the 'Rapid Response Activation Ring'. This torch features a strobe which is said to have a very effective disorientating effect on humans. The RRT-1's crenulated stainless steel bezel at the head can also be used as a glass breaker or a defensive tool. Weighing 210g and having a head diameter of 55mm, this 16cm long torch has an output of 240 lumens and an effective range of about 200m. The test model came with a single 18650 3.7V rechargeable battery which is good for about three hours at full power but when set at a mid-range 100 lumens may last eight hours. At the low 30 lumen mark this battery should provide 25 hours of 'everyday' usage.



Above: RRT-3 torches are powered by three Li-ions batteries that fit into a battery magazine. Left: To torture test the JetBeam I threw the RRT-1 down our driveway – it survived.

JetBeam's M2S is powered by two 3.7V rechargeable batteries or four CR123s when used with its body extension, it has a maximum output of 1 000 lumens, an effective range of over 200m and a battery run time of one hour. Without the extension it takes three CR123 batteries, still puts out 1 000 lumens in maximum mode but total battery life is then shortened to 45 minutes. The M2S has two modes, Maximum Brightness and Daily-use. To switch between the two, the user merely tightens down the bezel/head for maximum brightness and loosens it slightly for the Daily-use mode in which you can choose between Mid, Low and Strobe functions by clicking the switch in sequence. In Mid mode (480 lumens) the total battery run time is two hours, 20 hours in Low mode (80 lumens) and two hours in Strobe mode (1 000 lumens). In Max Brightness mode, it gets very hot but its temperature protection circuit kicks in after 10 minutes, reducing the output to approximately 480 lumens (Mid-mode).

Chris Compton-James, the JetBeam agent, supplied a clamp-on mount so I used the torch on my 7x57 and although I did not hunt with it, I was able to do some testing on an open piece of veld. The clamp-on mount is not adjustable but the torch's beam is bright enough and the corona wide enough to use the combination at ranges up to 120m.

Last but not least is the RRT-3. Powered by three 18650 Li-ions that fit into a battery 'magazine', it has a maximum output of 1 200 lumens and total battery run time of 80 minutes at maximum brightness. This torch employs an 'orange skin' reflector which causes the hotspot beam to disperse a little, making it less concentrated than the M2S's beam. It thus throws a wider beam that does not quite have the reach of the M2S's.

Turned down to 550 lumens the run time is three hours and at 150 lumens over 10 hours. To switch the RRT-3 on, simply

press the power button in the tail cap. Like the RRT-1, the RRT-3 has a rotating control ring just behind the head which gives the operator instant access to eight different brightness levels and the strobe mode. Due to its high output at max brightness this torch also gets very hot, but instead of switching to a lower output automatically, the RRT-3's beam starts flashing when the temperature protection circuit kicks in. When that happens you need to switch manually to a lower brightness mode or switch the torch off completely until it has cooled down sufficiently. The RRT-3 can utilise a remote switch and a detachable handle (R230) is also available as an accessory.

A friend, Siggie Kühn, accidentally left the RRT-1 pictured here on top of his Land Cruiser's cab and it fell off while he was on the M13 freeway on the outskirts of Pinetown. By the time he got a gap to snatch it from the busy freeway, the torch had been struck/run over by several cars. The scars are clearly visible, yet the little RRT-1 was still in perfect working order. Since it was already a bit battered I submitted it to three, two metre drops onto a concrete surface before throwing it down our driveway. It landed 7m away and skidded another 8m before coming to a rest. When I flicked the switch the JetBeam was still working 100%. This must be the toughest torch I have used to date.

As mentioned before, all JetBeams can be powered by different battery sources and the best non-rechargeable ones are the CR123s. They are, however, quite expensive so I would go for the rechargeable 18650 Li-ions. They are about R120 each and the battery charger is another R180, but you can use such a battery for up to 150 cycles. So, in the long run it is worth using rechargeable ones instead of CR123s.

JetBeams are expensive. The base prices for the Jet-I Pro and Jet-III is R900 and R1 100 respectively while the RRT-1 retails for R1 700, the M2S for R2 400 and the RRT-3 for R4 000. Add the cost of optional extras such as a charger, rifle mount, 'attack' bezel, remote switch, etc and you are making a serious investment so consider your needs well and choose the right JetBeam (or two) for your needs. The JetBeams are the most powerful torches I have ever used and their overall quality impressed me. I recommend these torches with great confidence.

For more information contact Chris Compton-James on 031-767-1130 (w) or 082-603-9277 or email JetBeam South Africa on <chris@jetbeam.co.za>. 