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## UltraCell launches line of scalable BLADE fuel cells and announces major milestones for the Air Force BAO Kit XX55 portable fuel cell

April 9<sup>th</sup>, 2014, Livermore, CA

UltraCell is pleased to announce that our BLADE Fuel Cell Power System is available for sale to professional and military customers. In addition, UltraCell announces that the XX55 has exceeded Air Force requirements for MTBF and cycling. These announcements are made after completion of a 2 ½ year development period which included field testing in arctic and desert conditions with partner customers and extensive laboratory testing at temperatures ranging from -20C to + 50C and aggressive MIL-STD tests.

BLADE is a revolutionary approach to portable fuel cell systems. It is optimized for compact size, just 33.5cm x 24.9cm x 19.0cm, while also being packaged into a MIL-STD chassis. Designed from the get-go with silent watch applications in mind, BLADE is whisper quiet at less than 40db. Furthermore, it includes an internal Bren-Tronics BB2590/U battery for surge capability and the fuel cell can be set to automatically turn-on and off based on the internal or external battery voltage. BLADE can also function with other hybrid batteries.

The innovation continues into the BLADE industrial design that is optimized for maintainability. Internal components can be easily swapped out to allow for long-term service life. Major elements are sized for >2000-hour life and certain critical components have demonstrated 8,000hr life. BLADE can be ordered between 70-150W power levels and is compatible with our industry leading range of fuel cell cartridges from 500-12,500Whr capacities.

BLADE is a higher power version of UltraCell's XX55 fuel cell. The XX55 was originally developed with funding from the US Air Force Research Lab (AFRL) and over the past 3-years UltraCell, as part of Bren-Tronics, has continued to refine and improve the product. The XX55 recently exceeded all AFRL durability requirements for lifetime and cycling as well as other MIL-STD requirements such as shock and vibration, EMI etc. The XX55 was designed primarily to support dismounted warfighters by powering high-energy devices such as rugged computers, man-pack radios and other gear.



Figure 1 BLADE 150W fuel cell

According to UltraCell's, chief technical officer, Ian Kaye *"The addition of BLADE to our product line adds new silent-watch applications to our worldwide sales and marketing channels."* These products are being folded into the overall Bren-Tronics product and manufacturing process. *"Being part of Bren-Tronics has greatly improved our ability to field products to a world-wide customer base, while completing the industrialization of our technology by leveraging the 40+ year manufacturing experience of a proven Tier 1 military hardware supplier"* he added.

UltraCell was founded in 2002. Bren-Tronics Inc. acquired certain IP and assets of the company in 2011, and formed UltraCell LLC. Leveraging Bren-Tronics' military manufacturing expertise, UltraCell continues to commercialize fuel cell technology with the success of the industry leading BLADE and XX55™ fuel cell systems.

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UltraCell LLC, A Bren-Tronics Company