NIE 13.1 Executive Briefing

Primary UBI-5390 Small Format

Battery & Energy Products

Providing power and energy products around the world.

Benefits:

- 7% more capacity than full-size BA-5590 and 31% lighter
- 12-15 year shelf-life versus 5 year shelf-life with the BA-5590
- Approximately half the size and weight of full-size BA-5390A/U with 70% of energy
- Built-in state-of-charge indicator

Ultralife's New P/N: UB0031



NIE 13.1 Reports:

IV. Training and Doctrine Command (TRADOC) Operational Assessment:

- RECOMMENDED DISTRIBUTION PLAN: Make available through the normal supply system *as a replacement* for the BA-5590 and BA-5390 batteries.

- JUSTIFICATION FOR RECOMMENDATIONS: Reduced size, weight, and extended life over existing batteries. The Small Format BA-5390 is capable of providing power to 12-Volt (V) communication systems at approximately half the size and nearly half the weight of legacy batteries and can provide power to the ASIP radio for continuous use for approximately 25.5 hours versus six to eight hours with the BA-5590. The Small Format BA-5390 provided the unit with a reliable and lightweight energy solution that is a notable improvement over the legacy battery.

V. Army Test and Evaluation Command (ATEC) Technical Assessment:

- CONCLUSIONS: The Ultralife Small Format BA-5390 demonstrated improved battery life over the legacy BA-5590 and BB-2590 style batteries with a reduction in size and weight. In its current configuration, commanders must develop TTPs to monitor battery life in the AN/PRC-155 Manpack radio since the radio's LCD does not display the remaining charge.

Fielding Recommendations: Field the Small Format 5390

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Executive Summary:

The Ultralife Small Format BA-5390 non-rechargeable battery provides support to Soldiers using 12V communications equipment.

The Ultralife Small Format BA-5390 battery demonstrated it is capable of providing power to the AN/PRC-155 Manpack radio and the RT-1523 Advanced Single Channel Ground to Air Radio System Improvement Program (ASIP) radio. The Ultralife Small Format battery powers the ASIP longer than the legacy BA-5590 battery. Additionally, the Ultralife Small Format BA-5390 is approximately half the size and weight of the legacy BA-5590. The improved battery life and reduction in size and weight provides commanders with the ability to extend mission duration. It has the potential to decrease the logistical burden for resupply operations and reduce the amount units will have to load, store, and carry during missions.

The Ultralife Small Format BA-5390 battery's remaining life cannot be displayed on the AN/PRC-155 Manpack radio's liquid crystal display panel. The Soldier must remove the battery from the radio to determine the remaining charge. Until the display compatibility issue is resolved, leaders will have to develop Tactics, Techniques, and Procedures for Soldiers to monitor battery life during extended duration missions to mitigate the possibility of power loss.

Users should employ the Ultralife Small Format BA-5390 in the same manner as the legacy BA-5590, BA-5390, BB-390 and BB-2590 style batteries in the military inventory.

High potential for equipping. Continue to develop and test.

About Ultralife:

A global corporation headquartered in Newark, New York, Ultralife has extensive North American as well as international operations in Europe, China and India backed by a direct sales and distribution network comprising resellers, distributors and agents. Through strategic growth and acquisitions, the corporation has expanded beyond its commercial and military battery business to include custom engineering design and services, tactical communications systems and a wide range of power accessories for global government and defense markets.

Content & excerpts taken from the *NIE 13.1 Summary Assessment Report* (15 January 2013)

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