UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

FORM 8-K

PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934

Date of Report (Date of earliest event reported):

September 8, 2004

ULTRALIFE BATTERIES, INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

0-20852 16-1388013

(Commission File Number) (I.R.S. Employer Identification No.)

2000 Technology Parkway, Newark, New York 14513
-----(Address of principal executive offices) (Zip Code)

(315) 332-8100

(Registrant's telephone number, including area code)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions.

- [] Written communications pursuant to Rule 425 under the Securities Act (18 CFR 230.425)
- [] Soliciting material pursuant to Rule 14a-12 under the Exchange Act (18 CFR 240.14a-12)
- [] Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (18 CFR 240.14d-2(b)
- [] Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (18 CFR 240.13e-4(c))

Item 7.01. Regulation FD Disclosure.

The Company today announced the receipt of an order valued at over \$1.6 million for its HiRate(R) D-size lithium cells from one of its U.S. battery assembly customers, a prime contractor to the U.S. Army. Ultralife announced numerous orders for the same product from this customer in 2003. Refer to the attached Exhibit 99.1 for the entire text of the release, which Exhibit is being furnished but not filed in accordance with Regulation FD.

Item 9.01. Financial Statements, Pro Forma Financials and Exhibits.

- (a) Financial Statements of Business Acquired.
 - Not applicable.
- (b) Pro Forma Financial Information.

Not applicable.

- (c) Exhibits.
 - 99.1 Press Release dated September 8, 2004.

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

ULTRALIFE BATTERIES, INC.

Dated: September 8, 2004 By: /s/ Peter F. Comerford

Peter F. Comerford

Vice President Administration &

General Counsel

INDEX TO EXHIBITS

- (99) Additional Exhibits
 - 99.1 Press Release dated September 8, 2004.

Ultralife Batteries, Inc. Receives \$1.6 Million Order for HiRate
Military Cells

NEWARK, N.Y.--(BUSINESS WIRE)--Sept. 8, 2004--Ultralife Batteries, Inc. (NASDAQ: ULBI) today announced the receipt of an order valued at over \$1.6 million for its HiRate(R) D-size lithium cells from one of its U.S. battery assembly customers, a prime contractor to the U.S. Army. Ultralife announced numerous orders for the same product from this customer in 2003. The cells are used in batteries for Thermal Weapon Sights, which are used for surveillance, target acquisition and engagement. The batteries will be supplied to the U.S. Army Communications and Electronics Command. Cell deliveries are expected to begin in late September and be completed by the end of the year.

John Kavazanjian, Ultralife's president and chief executive officer, said, "The Defense Department has fielded tens of thousands of advanced infrared thermal weapon sights and plans to field thousands more for use by the Army, Marine Corps and Special Operations Forces. This increasing demand for batteries using our cells affirms our position as the industry leader in the design and production of safe, high-energy lithium-manganese dioxide cells and batteries."

Ultralife's D-size, non-rechargeable lithium cells, which provide significantly more energy than competitors' lithium-sulfur dioxide cells, are used in a wide range of military and industrial applications where high energy, long shelf life, safety and high reliability are required.

About Ultralife Batteries, Inc.

Ultralife is a leading developer, manufacturer, and marketer of standard and customized lithium primary (non-rechargeable), lithium ion and lithium polymer rechargeable batteries. Ultralife's high-energy batteries use advanced lithium technology and are used in military, industrial and consumer portable electronic products. Through its range of standard products and ability to customize for a wide range of applications, Ultralife is able to provide the next generation of battery solutions. OEM, retail and government customers include Energizer, Kidde Safety, Philips Medical Systems, Radio Shack and the national defense agencies of the United States and United Kingdom, among others.

Ultralife's headquarters, principal manufacturing and research facilities are in Newark, New York, near Rochester. Ultralife (UK) Ltd., a second manufacturing and research facility, is located in Abingdon, U.K. Both facilities are ISO-9001/2000 certified.

This press release may contain forward-looking statements based on current expectations that involve a number of risks and uncertainties. The potential risks and uncertainties that could cause actual results to differ materially include: worsening global economic conditions, increased competitive environment and pricing pressures, disruptions related to restructuring actions and delays. Further information on these factors and other factors that could affect Ultralife's financial results is included in Ultralife's Securities and Exchange Commission (SEC) filings, including the latest Annual Report on Form 10-K.

Detailed information on Ultralife is available at the Company's web site, www.ultralifebatteries.com.

 ${\tt Ultralife(R)}$ and ${\tt Ultralife\ HiRate(R)}$ are registered trademarks of ${\tt Ultralife\ Batteries}$, ${\tt Inc.}$

CONTACT: Company Contact:
 Ultralife Batteries, Inc.
 Peter Comerford, 315-332-7100
 pcomerford@ulbi.com
 OR
 Investor Relations Contact:
 Lippert/Heilshorn & Associates, Inc.
 Jody Burfening, 212-838-3777
 jburfening@lhai.com
 OR
 Media Contact:
 Lippert/Heilshorn & Associates, Inc.
 Chenoa Taitt, 212-201-6635
 ctaitt@lhai.com