

Sion Power's Lithium-Sulfur Batteries Power High Altitude Pseudo-Satellite Flight

Tucson, Arizona, September 10, 2014: Sion Power announced today that their proprietary lithium sulfur (Li-S) batteries played a critical role in the Airbus Defense and Space Zephyr 7 prototype High Altitude Pseudo-Satellite (HAPS) aircraft completing its most demanding mission to date: a southern hemisphere winter weather flight of over 11 days duration controlled by satellite communications.

The Zephyr 7, a solar/battery powered all electric UAV with a wing span of 70 feet (22.5 m) and a weight of just over 110 lbs. (50 kg), achieved this remarkable record using a combination of solar power during the day and Sion Power's Li-S batteries at night.

The custom built Li-S battery pack was designed and assembled by Sion Power in Tucson Arizona. The battery utilized Sion's unique, high specific energy Li-S cells which provide 350 Wh/kg, the highest available for a rechargeable battery. The Li-S battery pack was carefully engineered to minimize total pack weight. Advanced electronic controls maintained the battery condition throughout the flight.

"This flight represents a further major accomplishment for Sion's lithium sulfur technology proving the viability of our high energy, rechargeable battery system" said Sion Power's CEO, Dr. Dennis Mangino. "As a winter flight, the aircraft flew longer on the batteries than on the solar array, a world first."

Jens Federhen, head of the Airbus Zephyr program said "The performance of the Sion Li-S battery was excellent and the Zephyr was able to exploit the full capacity of the battery due to the high reliability and consistency of the cells, essential for this winter flight. Sion's Li-S batteries are an enabling technology for the Zephyr program and we look forward to joint future flights."

Once launched, Zephyr can remain above a region for weeks delivering persistent services at a fraction of the cost of satellites and is significantly more cost effective than other conventionally powered manned or unmanned aircraft. This latest flight is part of an ongoing program to develop Zephyr into a year-round capability and provided the data which will be used to refine the design for the Zephyr 8, the next generation of HAPS.

About Sion Power:

Privately held Sion Power Corporation is the global leader in the development of a new generation of high-energy, rechargeable lithium sulfur batteries for UAV, military, portable power and electric vehicle markets. Sion Power has assembled a world class team of scientists and engineers dedicated to advancing Li-S battery technology. The company has more than 100 U.S. and international patents and is headquartered in Tucson, Arizona. Further information is available at www.sionpower.com.

For more information on Zephyr:

<http://militaryaircraft-airbusds.com/PressCenter/LatestNews/TabId/176/ArtMID/681/ArticleID/334/Another-First-for-Airbus-Zephyr-7-.aspx>