

## For Immediate Release June 15, 2009

## Johns Hopkins APL Selects GS Yuasa Lithium Power Solutions for Radiation Belt Storm Probes Mission

Alpharetta, Ga., June 15, 2009 – GS Yuasa Lithium Power (GYLP) today announced that The Johns Hopkins University Applied Physics Laboratory (JHU/APL) awarded it the contract to supply Lithium-ion cells for the National Aeronautics and Space Administration (NASA) Radiation Belt Storm Probes (RBSP) mission. Two satellites will be launched in fulfillment of the mission, each with primary objectives lasting two years and supplemental objectives potentially extending several years longer. GYLP will supply battery cells to provide on-board power for each of the satellites during the eclipse phase of each Mid-Earth Orbit. The battery cells will re-charge from solar panels during each sun-facing orbital phase.

"Fluctuations in the Van Allen radiation belts during magnetic storms affect communications and power networks. Understanding those fluctuations has implications for space-based assets as well as life on Earth. GS Yuasa's battery cells will perform an important function, providing power during those phases of the mission when the probes solar panels are not receiving sunlight," said Rick Fitzgerald, RBSP project manager at The Johns Hopkins University Applied Physics Lab.

The RBSP mission is part of NASA's "Living with a Star" program, which is studying the sun-Earth interaction and how this interaction affects life on Earth. The missions in this program will examine the sun, tracking disturbances that originate there and propagate through the heliosphere, as well as launching spacecraft into the magnetosphere and ionosphere to measure the geospace response to magnetic storms.

Besides producing the aurora borealis and aurora australis, or northern and southern lights, magnetic storms can pose severe hazards including disrupting communications and power lines, threatening astronauts in orbit, corroding pipelines and degrading spacecraft orbits.

"We are pleased to be selected by The Johns Hopkins University Applied Physics Lab to power these vital NASA missions," said GYLP company President William Moll. "GS Yuasa's space-qualified Lithiumion cells have a well-deserved reputation for quality and reliability. This contract award by JHU/APL further builds that reputation."

GS Yuasa has provided battery cells for several domestic and international satellite programs in recent years and has launched aboard at least seven publicized missions, as well as being scheduled to launch aboard another publicized mission later this year. GS Yuasa completed development of the LSE family of Lithium-ion cells certified for space applications in 1999 and launched the first LSE cells aboard mission spacecraft by 2005.



## **GS Yuasa Lithium Power:**

GS Yuasa is one of the world's leading battery manufacturers for automotive, telecom, and industrial applications and has produced commercial batteries for more than one hundred years. GS Yuasa manufactures a variety of specialty battery technologies, among them Lithium-ion, Nickel-Metal Hydride, Thermal batteries and Silver Zinc.

GS Yuasa began manufacturing Lithium-ion cells for commercial markets in the early 1990's and started to design, test, and build larger capacity cells in 1996. In April of 2006, GS Yuasa chartered GS Yuasa Lithium Power to provide domestic engineering, manufacturing and support for high-powered large-capacity aerospace, defense, motive and industrial Lithium-ion battery applications.

## The Johns Hopkins University Applied Physics Laboratory:

The Applied Physics Laboratory, a division of The Johns Hopkins University, is a not-for-profit research and development organization dedicated to solving complex problems that present critical challenges to the nation. Through advanced technology; highly qualified, diverse teams; hands-on operational knowledge; and a basic systems engineering approach, APL achieves affordable, effective solutions. APL's outstanding, creative staff and world-class facilities have made the Laboratory a major asset to the nation for more than six decades.

APL expertise encompasses a broad body of knowledge and technical specialties including missile, radar, sonar, undersea, and sensor technologies; space science and engineering; information technology; microelectronics; communications; navigation; modeling and simulation; advanced research and technology development; transportation; and biomedical engineering.

For more information regarding NASA's "Living with a Star" Program, the RBSP mission, JHU/APL, GS Yuasa or GS Yuasa Lithium Power, please see the following websites:

http://lws.gsfc.nasa.gov/index.htm http://rbsp.jhuapl.edu/ http://jhuapl.edu/ http://www.gsyuasa.com/us/index.asp http://www.gsyuasa-lp.com

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