



## **Saft Li-ion batteries to power Iridium NEXT LEO satellite constellation in multi-million Euro contract with Thales Alenia Space**

*Saft space-proven lithium-ion (Li-ion) battery systems will be installed onboard 81 LEO satellites that will comprise the world's largest commercial constellation*

**Paris, November 8, 2011** – Saft has been awarded a multi-million Euro contract by Thales Alenia Space, the prime contractor, to supply all the onboard Li-ion batteries for the Iridium NEXT LEO (low-Earth orbit) satellite constellation scheduled to start launching in 2015. This contract for a total of 81 battery systems further consolidates Saft's position as the world's leading supplier of advanced battery technology for space flight applications.

*'This major contract for the Iridium NEXT project is a significant advance in Saft's strategy to develop a market-leading position in the very important LEO sector by building on our well established reputation for delivering reliable, high performance leading-edge batteries for GEO and space vehicle customers. It also further consolidates our excellent relationship with Thales Alenia Space developed on platforms such as the Spacebus GEO and Proteus LEO satellites,'* said Philippe Jehanno, General Manager, Saft's Space and Defense Division. *'We have already had considerable success in the LEO constellation market, but the size of the Iridium NEXT contract now takes us to the next level, particularly as the volume enables our manufacturing facilities to progress beyond what is effectively a customized manufacturing process to implement a series production approach.'*

Iridium NEXT will maintain the same architecture as Iridium's current constellation, the world's largest commercial constellation, with 66 cross-linked LEO satellites covering 100 percent of the globe. However, Iridium NEXT will substantially enhance and extend the Iridium mobile communications services by delivering: higher data speeds; powerful new services and devices; advantages of IP technology; backward compatibility with current handsets, devices and applications. In addition to the 72 operational satellites - including 6 in-orbit spare satellites – the Iridium NEXT project also comprises 9 ground spares making a total of 81.

### **Iridium NEXT battery systems**

The battery systems for the Iridium NEXT satellites will comprise four battery modules based on Saft's MPS 176065 (5.6 Ah) space-qualified prismatic format Li-ion cells developed to offer the ideal combination of robust construction, lightweight design, high performance and long service life for LEO satellite applications. Integral cell protection devices, active balancing systems, heating circuits and all associated telemetry functions ensure that the batteries will meet the specified life-time requirements.

Saft already has a proven track record in providing MPS batteries for a satellite constellation –this experience combined with Saft's engineering expertise in designing competitive battery products resulted in the award of this contract for the Iridium NEXT programme. Saft's industrialized cell and battery manufacturing capabilities are customized to meet the highly rigorous demands of space qualification, and comply with the highest ESA/CNES and spaceflight standards.



The Iridium NEXT batteries will be designed, manufactured, assembled, integrated and tested in Saft's facility in Poitiers, France. The first deliveries to Thales Alenia Space will be in December 2012, the battery systems will then be delivered over a four-year schedule.

## **LEO battery operation**

The Saft battery systems will work in conjunction with the solar array on the Iridium NEXT satellites to provide electrical power for the onboard electronics. When the solar array is fully exposed to the sun it will power the satellite and charge the batteries. When the solar array is 'eclipsed' by the earth, with no direct sunlight, the batteries will power the satellite. LEO satellites have a typical period of around 90 to 100 minutes, so this charge and discharge cycle is repeated around 14 times a day, representing over 50,000 cycles throughout the satellite's 12-year mission life.

## **About Thales Alenia Space**

The European leader in satellite systems and a major player in orbital infrastructures, Thales Alenia Space is a joint venture between Thales (67%) and Finmeccanica (33%). Thales Alenia Space and Telespazio embody the two groups' "Space Alliance". Thales Alenia Space sets the global standard in solutions for space telecommunications, radar and optical Earth observation, defense and security, navigation and science. With consolidated revenues of 2 billion euros in 2010, Thales Alenia Space has 7,200 employees at 10 industrial sites in France, Italy, Spain, Germany and Belgium.

[www.thalesaleniaspace.com](http://www.thalesaleniaspace.com)

## **About Saft**

Saft (Euronext: Saft) is a world leader in the design and manufacture of advanced technology batteries for industry. The Group is the world's leading manufacturer of nickel batteries and primary lithium batteries for the industrial infrastructure and processes, transportation, civil and military electronics markets. Saft is the world leader in space and defence batteries with its Li-ion technologies which are also being deployed in the energy storage, transportation and telecommunication markets. Saft's 4,000 employees present in 19 countries, its 16 manufacturing sites and extensive sales network all contribute to accelerating the Group's growth for the future.

**For more information, visit Saft at [www.saftbatteries.com](http://www.saftbatteries.com)**

## **Press contact:**

Jill Ledger, Saft Corporate Communications and Institutional Relations Director  
Tel: +33 1 49 93 17 77, e-mail : [jill.ledger@saftbatteries.com](mailto:jill.ledger@saftbatteries.com)

Yannick Borthomieu – Saft SBG Space Products Product Manager  
Tel: +33 5 49 55 40 14, e-mail: [yannick.borthomieu@saftbatteries.com](mailto:yannick.borthomieu@saftbatteries.com)