



## **MEMSCAP SENSORS LAND ON MARS ON BOARD NASA'S "CURIOSITY" ROVER**

*"Curiosity" carries MEMSCAP SP82 pressure sensors.*

**Grenoble, France and Skoppum, Norway, September 24, 2012** – MEMSCAP (NYSE Euronext: MEMS), the leading provider of innovative solutions based on MEMS (micro-electro-mechanical systems) technology, today announces that MEMSCAP Sensors selected by the Jet Propulsion Laboratory (JPL) are performing well on "Curiosity", the most advanced planetary robot which landed on Mars on August 6, 2012.

Headquartered in the USA, the Jet Propulsion Laboratory is a USA federally funded research and development center located in Pasadena, California. JPL is managed by the nearby California Institute of Technology (Caltech) for the National Aeronautics and Space Administration. The Laboratory's primary function is the construction and operation of robotic planetary spacecraft.

"Curiosity" just started a two year mission on Mars to investigate the habitability of Mars through collecting and analyzing both atmospheric and mineral specimens. It will seek to determine if the Red Planet ever had conditions to support life. Curiosity will delve into Mars' environmental history in much greater detail than previous missions led by its predecessors and enhance our knowledge of the geological composition and past evolution of our planetary neighbor. This laboratory on wheels will act as a motorized field geologist and geochemist, probing and analysing the Martian surface.

Launched from Cape Canaveral on November 26, 2011, Curiosity carries MEMSCAP standard version of SP82 absolute pressure sensors. MEMSCAP sensors have been selected for their high accuracy and stability, combined with low weight, compactness and exceptional reliability.

The Tunable Laser Spectrometer (TLS) (Instrument PI Chris Webster, JPL) onboard the Sample Analysis at Mars (SAM) suite (Suite PI Paul Mahaffy, NASA GSFC) on the now-landed Mars Science Laboratory Curiosity Rover will make abundance and isotopic ratio measurements of CO<sub>2</sub>, CH<sub>4</sub> and H<sub>2</sub>O in the Martian atmosphere and also in evolved gases from Martian soil and rock samples. The TLS is equipped with a Herriott sample cell to perform the measurements of low-concentration components and to observe weak spectra in gases and uses individual MEMSCAP sensors to measure both the sample cell and foreoptics chamber pressure.

Because high accuracy, reliable pressure measurements are needed for gas abundance determinations, the MEMSCAP high accuracy SP82 sensors are used. Pressure is a parameter that affects both abundance and spectral lineshape. The second MEMSCAP SP82 monitors the foreoptics pressure to assess any leak within the optical apparatus, which should remain in vacuum.

"JPL considers MEMSCAP an important technology provider for this space program instrument. We were impressed with the technical support received from the MEMSCAP technical team and are now very pleased with the product performance on Mars" says Gregory Flesch and Didier Keymeulen, Cognizant Engineers for TLS at JPL.

MEMSCAP modular aerospace products are designed for all the aeronautics control systems worldwide, and their applications range from engine control, altitude and cabin pressure control, air data, to altimeters, air speed indicators and space applications.

Specifications and details for MEMSCAP avionics products can be obtained by contacting MEMSCAP at [info@memscap.com](mailto:info@memscap.com) or by contacting our office in Skoppum, Norway.

#### ***About Jet Propulsion Laboratory***

Jet Propulsion Laboratory is a federally funded research and development center and NASA field center located in Pasadena, California. JPL is managed by the nearby California Institute of Technology (Caltech) for the National Aeronautics and Space Administration. The Laboratory's primary function is the construction and operation of robotic planetary spacecraft, though it also conducts Earth-orbit and astronomy missions. It is also responsible for operating NASA's Deep Space Network.

#### ***About MEMSCAP***

MEMSCAP is the leading provider of innovative micro-electro-mechanical systems (MEMS)-based solutions. MEMSCAP standard and custom products and solutions include components, component designs (IP), manufacturing and related services. MEMSCAP customers include Fortune 500 businesses, major research institutes and universities. The company's shares are traded on the Eurolist of NYSE Euronext Paris S.A (ISIN: FR0010298620-MEMS). More information on the company's products and services can be obtained at [www.memscap.com](http://www.memscap.com).

For more information, please contact:

#### **Jan Hallenstvedt**

General Manager, Standard  
Products Business Unit  
MEMSCAP  
Ph: 47 3308 4000

[Jan.hallenstvedt@memscap.com](mailto:Jan.hallenstvedt@memscap.com)

#### **Nicolas Bertsch**

Chief Operating Officer  
MEMSCAP  
Ph: +33 4 76 92 85 00

[nicolas.bertsch@memscap.com](mailto:nicolas.bertsch@memscap.com)