

TIGER OPTICS SALUTES NASA'S SUCCESSFUL JUNO MISSION

ITS ANALYZER HELPS SAFEGUARD AGAINST DANGEROUS CONTAMINANTS

Warrington, PA (**September 21, 2016**) – Along with NASA scientists, Tiger Optics LLC had reason to cheer when the Juno spacecraft successfully entered Jupiter's orbit in July, capping its five-year journey from Cape Canaveral. Prior to Juno's launch on August 5, 2011, a Tiger Optics trace-gas analyzer helped NASA keep the scientific payload in prime condition.

As demonstrated in the Juno mission, Tiger Optics' HALO trace-gas analyzer plays a critical role in detecting contaminants that could compromise the performance of scientific instruments in space. Such scientific instruments are designed to operate in the vacuum of space, in the absence of chemicals present in the earth's atmosphere: water, oxygen, and particulate matter. Prior to launch, the space-bound instruments must be protected from earthly contaminants by storing the payload under a flow of high-purity inert gas. Nitrogen is usually the inert gas chosen for the task. Typically, the moisture level in NASA's high-purity nitrogen must be kept under 1 ppm. Tiger Optics' HALO H₂O analyzer comfortably handled that requirement for the Juno mission, because the device measures moisture in a range from 2 ppb to 20 ppm.

After Juno entered Jupiter's orbit on July 4, NASA scientists powered up the science instruments aboard the spacecraft for its first close "flyby" of the planet on August 27. On September 2, NASA reported that all eight of Juno's science instruments were successfully energized and collecting data. Indeed, on the first of 36 scheduled orbital flybys, six megabytes of data were collected during the six-hour transit of the spacecraft from above Jupiter's north pole to below its south pole. While analysis of the data is ongoing, NASA quickly published the first-ever images of Jupiter's north pole.

"Tiger Optics is honored that its technology is trusted to support our nation's journey into the frontiers of space," said Lisa Bergson, Tiger Optics' chief executive.

About Tiger Optics

Founded in 2001, <u>Tiger Optics</u> offers a wide and proven array of gas analyzers, as well as atmospheric and environmental monitors. From the cleanest of semiconductor fabs to the harshest coal-fired stacks, our analyzers work to improve yields, reduce costs and ease the burdens of regulatory compliance.

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