



FOR IMMEDIATE RELEASE

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World View Successfully Executes ARMAS High-Altitude Research Mission

Mission Payloads Focus on Radiation Detection Technology

TUCSON, Ariz. – World View, the stratospheric exploration company, announced today that it has successfully executed a Z-Class high-altitude mission commissioned by [Space Environment Technologies](#) through the NASA Flight Opportunities program office (FOP). The mission also carried a ride-share payload for [NASA Ames Research Center](#). Both organizations are studying radiation detection and its energy levels at different altitudes.

The Z-Class mission launched from Spaceport Tucson at approximately 9:39 a.m. PT on Thursday, March 29, 2018.

“These types of missions provide World View the opportunity to use our flight platform to support important scientific research that will benefit humanity back here on Earth,” said Jane Poynter, World View founder and CEO. “We look forward to many more missions with NASA, Space Environment Technologies and others looking to perform research in a low-cost and unique space environment.”

This Z-Class mission, commissioned by Space Environment Technologies (SET) through the NASA Flight Opportunities program office (FOP), carried two radiation detection experiments. The first payload, the Automated Radiation Measurements for Aerospace Safety (ARMAS) system, was developed by a team led by Principal Investigator Dr. W. Kent Tobiska of Space Environment Technologies. The ARMAS system uses an innovative approach with airborne dosimeter sensors and ground-based servers to both enhance space science research and improve aviation safety. While in flight, data from a dosimeter is retrieved in real-time, either via Iridium satellite on research aircraft/balloons or Wi-Fi on commercial aircraft. The data is then downlinked to the ground and used by NASA’s Nowcast of Atmospheric Ionizing Radiation for Aviation Safety (NAIRAS) model of the global radiation environment. When ARMAS data is ingested into NAIRAS, an improved accuracy of radiation dose rates along with airborne flight tracks is accomplished. The goal of ARMAS is to enable air traffic management to monitor global radiation “weather,” thus allowing commercial air traffic to avoid higher radiation areas. One ultimate objective of this research is to reduce crew and passenger radiation exposure by flying in lower radiation regions or spending less time in higher radiation locations. The source of the radiation, whether from galactic cosmic rays, solar flares, or the Van Allen radiation belts, is an example of how the dynamically changing space weather environment can affect the population as we become more technologically advanced.

“This World View stratospheric balloon flight of ARMAS truly opens the door to achieving a next step – how we reduce radiation exposure for commercial passengers’ stratospheric as well as space flight within the next five years,” said Dr. W. Kent Tobiska, Principal Investigator for ARMAS.

The second payload, developed by scientists led by Principal Investigator Dr. Meyya Meyyappan at the NASA Ames Research Center, is a chip-based radiation sensor intended to identify various radiations and their unique energy levels in space environments. This high-altitude mission provided the first opportunity to test this sensor and calibrate it against known instruments to develop an inexpensive, small footprint radiation nose system.

World View offers two distinct stratospheric flight vehicles, Z-Class and the Stratollite. The Stratollite (not used for this mission) uses a unique configuration of balloons to offer breakthrough stratospheric navigation and persistence for long-duration missions. The Z-Class vehicle uses a single zero-pressure high-altitude balloon for

shorter duration missions not requiring navigation or persistence. The Z-Class vehicle is a reliable and affordable workhorse option for high-altitude research missions like the one conducted today.

Click this link for photos from the launch. Following vehicle and data recovery and processing, World View will update this link with additional in-flight imagery and footage: <https://bit.ly/2pQE11z>.

About World View® Enterprises, Inc.

World View's innovative flight technologies offer a unique perspective of Earth from the edge of space. World View delivers meaningful insights to enterprises, agencies, and individuals via two primary business segments: Stratollite un-crewed flight systems and Voyager human spaceflight systems. Stratollites, in operation today, offer low-cost, long-duration, persistent high-altitude flight for enterprise and government agencies. Using advanced stratospheric balloon technology, Stratollite applications include communications, remote sensing, weather, and research. The Voyager human spaceflight experience will leverage existing Stratollite development and operations experience to one day offer private citizens a comfortable, safe, and perspective-changing voyage to the edge of space via high-altitude balloon. To learn more about World View, visit www.WorldView.space.

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