‘ORBITAL REFLECTOR’ IGNITES GLOBAL CONVERSATION AND INSPIRES WONDER DESPITE CHALLENGES

Reno, Nev. (May 1, 2019) – In 2015 the artist Trevor Paglen and the Nevada Museum of Art undertook the unprecedented joint venture of launching a satellite into outer space. Working as co-producer and presenter, the Museum served as the public and educational interface to support Paglen’s aim to be the first artist to place a non-military, non-scientific, non-commercial satellite into low-Earth orbit. The Museum raised funds above and beyond its regular operating budget to support the project. The purpose of Paglen’s space-bound sculpture was to employ art as a means by which to encourage people around the world to see the sky with fresh eyes and to re-envision space as a place of possibility.

Paglen, who holds an MFA from the School of the Art Institute of Chicago and a PhD in Geography from the University of California, Berkeley, is a 2017 winner of a MacArthur Fellowship (“Genius Grant”) and was an artist-in-residence at the Massachusetts Institute of Technology. Orbital Reflector, Paglen’s most ambitious project to date, proposed launching a satellite about the size of a shoebox (known as a CubeSat) into space carrying a one-hundred-foot-long, diamond-shaped, inflatable balloon set to unfurl and expand into a sculpture that would reflect sunlight back to Earth. Once in orbit, Orbital Reflector was intended to appear regularly in the sky as a fast moving “star” before disintegration following re-entry into the Earth’s atmosphere.

After three years of engineering development, Orbital Reflector successfully launched from Vandenberg Air Force Base aboard a SpaceX Falcon 9 rocket on December 3, 2018. The launch was historically significant given the unprecedented number of 64 privately-funded, utilitarian payloads that traveled on the rocket alongside Orbital Reflector. In the days following the launch, the ground team at the aerospace firm Global Western stayed in regular contact with the spacecraft, checking its subsystems, and monitoring its temperature and position.

Orbital Reflector successfully separated from the rocket and was deployed within a cluster of similarly sized spacecraft. To avoid collision, Orbital Reflector was set to inflate once it drifted away from potential impacts, and after it had received final clearance and approval from the Federal Communications Commission (FCC). The satellite’s electronics and hardware were designed to function during this waiting period but were not hardened for long-term functionality in space. From the start, the satellite was designed to be as light and functional as possible to allow for eventual disintegration.

After launch, the ground team continued its monitoring while waiting for other satellites from the rocket launch to disperse in order to safely inflate the reflective structure. Then two unanticipated events occurred: 1) Due to the unprecedented number of satellites on the rocket, the U.S. Air Force was unable to distinguish between them and could not assign tracking numbers to many of them. Without a tracking number to verify location and position, the FCC could not give approval for inflation; and 2) The FCC was unavailable to move forward quickly due to the U.S. government shutdown.
Although communications with Orbital Reflector continued throughout these events, reliable signals between the satellite and the ground team were becoming infrequent. By the time the government was re-opened and the Air Force renewed its attempts to sort out the cloud of satellites, communications from spacecraft had gone silent. At this point, it became clear that tracking Orbital Reflector, either before or after its inflation in space, would no longer be a viable outcome.

Like the work of his historic predecessor, the Russian avant-garde artist Kazimir Malevich who sought to launch sculptural art objects into space in the early 1900s, Paglen dared to imagine the impossible when he first proposed Orbital Reflector. Paglen wanted the world to ask serious questions about who controls space: Does anyone own it? And who ultimately decides how it is used? The final chapter of Orbital Reflector brings these questions and issues to the forefront. Like pioneering Land Artists of the late 1960s, whose larger-than-life gestures in extreme desert environments changed the course of art history, Paglen’s radically experimental endeavor will be forever etched into the narrative of twenty-first century contemporary art practice.

There is no doubt that Paglen’s provocative gesture captured the hearts and minds of professional and amateur astronomers, media outlets, the general public, educators, and students across the country and around the world. At the Nevada Museum of Art, Orbital Reflector became an important icon for STEAM education. The project truly epitomizes the interdisciplinary connections between the fields of science, technology, engineering, arts, and mathematics, and provides a long-term framework for educators developing future cross-disciplinary practices in the K-12 classroom.

Space remains one of the world’s greatest mysteries, and like the world’s best art, it continues to inspire seemingly endless curiosity and wonder. Orbital Reflector invited all of us to reconsider what we thought we knew about space, and to join a dynamic and ongoing conversation about our collective future.


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Nevada Museum of Art Mission Statement
We are a museum of ideas. While building upon our founding collections and values, we strive to offer meaningful art experiences and foster new knowledge in the visual arts by encouraging interdisciplinary investigation. The Nevada Museum of Art serves as an educational resource for everyone.

About Nevada Museum of Art
Nevada Museum of Art is the only art museum in Nevada accredited by the American Alliance of Museums (AAM). A private, non-profit organization founded in 1931, the Reno-based institution is supported by its membership as well as sponsorships, gifts and grants. Through its permanent collections, original exhibitions and programming, and E.L. Cord Museum School, the Nevada Museum of Art provides meaningful opportunities for people to engage with a range of art and educational experiences. Its Center for Art + Environment is an internationally-recognized research center dedicated to supporting the practice, study, and awareness of creative interactions between people and their environments. The Center houses unique archive materials from more than 1,000 artists working on all seven continents, including Cape Farewell, Michael Heizer, Walter de Maria, Lita Albuquerque, Burning Man, Center for Land Interpretation, Ugo Rondinone’s Seven Magic Mountains, and Trevor Paglen’s Orbital Reflector. Learn more at nevadaart.org.