

Media Lario S.r.l. awarded contract by NASA Jet Propulsion Laboratory to build the optical system for the ASTHROS stratospheric space telescope.

Bosisio Parini, Italy, 29 July 2020 – Media Lario S.r.l. has been awarded a contract by NASA Jet Propulsion Laboratory to produce the optical system for ASTHROS, an ambitious new mission that will carry a high performance 2.5-meter telescope to the edge of space via a stratospheric balloon the size of a football stadium.

Media Lario Srl is proud to have been selected to build the 2.5-meter Terahertz antenna composed of multiple metallic mirrored panels manufactured using our patented Repli-formed Optics™ process. The process relies heavily on the company's experience producing lightweight yet highly precise metallic optics able to survive the extreme conditions in space as well as on the ground.

ASTHROS, an acronym meaning Astrophysics Stratospheric Telescope for High Spectral Resolution Observations at Submillimeter wavelengths, is planned to launch in December 2023 from Antarctica. Once launched, the telescope will produce observations for several weeks above the icy southern continent at 40 kilometers altitude. The telescope itself will have similar sensitivity and many of the capabilities of ground-based radio telescopes yet, much like space-based telescopes, will not be encumbered by the interference of the Earth's atmosphere.

The mission will study, among many other things, star-forming regions in the Milky Way galaxy and other galaxies and will reveal places where winds from massive stars and supernova explosions have reshaped the gas clouds within these star-forming regions. Of course, other potential discoveries await with the new capabilities of the mission.





Illustration of a high-altitude balloon (Credit: NASA's Goddard Space Flight Center, Michael Lentz)

The optical system for ASTHROS is also extending the use of our patented Repli-formed Optics™ process. It has been used recently in ground-based radio telescopes to take the first-ever images of a black hole. Now it is being employed for use in scientific and sub-orbital telescope missions such as ASTHROS as well as in space applications such as intersatellite communications.

Jeff Lyons, CEO of Media Lario, said, "Our collaboration with NASA JPL has been a distinct pleasure from the start. The JPL team has challenged us to achieve new levels of performance with materials and packaging that are innovative in every way. Collaborations with such capable and supportive partners are the key to success when pushing the limits of technology. Our team is looking forward to working side by side with NASA JPL through all of the mission challenges together.

Media Lario is located north of the industrial hub of Milan, Italy, in the region of Lombardia and Lake Como, an area rich with expertise and heritage in the precision optical mechanical industry.

Media Lario S.r.l.
Via al Pascolo
23482 Bosisio Parini (LC) – Italy
 @media.lario.srl  @MediaLario



For information on ASTHROS, see <https://www.jpl.nasa.gov/news/news.php?feature=7712>
For more information on Media Lario S.r.l., please visit us at <http://www.medialario.com/>