

Miratlas, Honeywell to collaborate on atmospheric monitoring for secure laser and quantum communications infrastructure

Collaboration will enable cost-effective deployment for optical ground segment at scale.

Phoenix-AZ, Kanata, Canada, and Pertuis, France, 18nd of June 2024 –Miratlas, a leading atmospheric data provider, has been selected by Honeywell to supply its atmospheric characterization solution, Sky Monitor, into Honeywell's satellite and on-ground optical and quantum communications solutions. Miratlas' Sky Monitor is an all-in-one system measuring cloud cover, atmospheric turbulence and absorption to survey potential sites for optical communication optical ground station.

“We are delighted with this collaboration, we share the same vision of the future of space communications and Miratlas' technology will allow to optimize the costs and performance of the ground segment for Honeywell's worldwide customers,” said Jean-Edouard COMMUNAL, Ph.D, co-founder and Chief Executive Officer, Miratlas.

Miratlas is the first and unique industrial player to offer complete atmospheric optical characterization as a service, providing all the parameters necessary for Laser Communication and Quantum Key Distribution.

Clouds, aerosols and atmospheric turbulence have a major impact on the availability and the capacity of the atmospheric optical communication channel and therefore knowledge of those parameters is critical to the continuity of service and optical ground station site selection.

Honeywell will integrate real-time atmospheric data collected by Miratlas' Sky Monitor to simulate the performance of the link between space and ground assets.

“Atmospheric propagation is a key metric for the quantum key distribution business case. Miratlas' solution allows us to survey our customers' locations and demonstrate our value proposition with real world proven data” said Andrew Csizmar, Senior Director, Business Development, Space, Honeywell Aerospace Technologies.

Honeywell and Miratlas are working together to deploy the atmospheric characterization solutions on to North American based data-center sites.

About Miratlas

Founded in 2018 by [Jean-Edouard Communal](#) and [Frédéric Jabet](#), Miratlas is a deep-tech company which designs, manufactures and sells the Sky Monitor, and provides continuous, real-time, atmospheric characterization and modelling of all the parameters impacting light transmission including cloud cover and turbulence.

Miratlas is enabling the new chapter of laser satellites communication (Fibre in the Sky), by facilitating Direct to Earth Free Space Optical Communications and the extension of the high-capacity terrestrial networks to space.



Figure 1: Miratlas Sky Monitor on Honeywell's site



Figure 2: Andrew Csizmar (Honeywell SPACE) and Jean-Edouard COMMUNAL (Miratlas)