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Midwave infrared sounder for temperature and humidity in a constellation for winds

MISTiC® Winds

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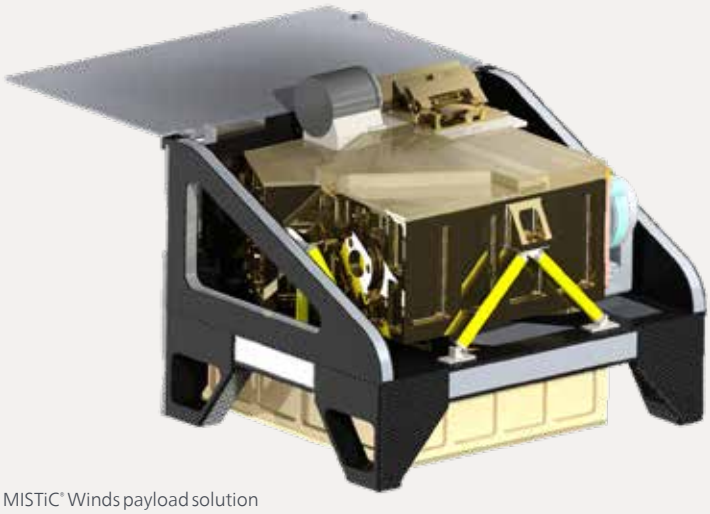
Utilizing state-of-the-art sensor technology to make critical atmospheric state and transport observations

MISTiC® Winds improves short-term weather forecasting with a miniature high-resolution, wide field, thermal spectrometry instrument. Its extraordinarily small size, low mass, and minimal cooling requirements can be accommodated aboard a small microsatellite. System observations improve weather predictions and support key economic decisions in the energy, air transport, and agricultural domains.



MISTiC® Winds payload solution

Key features and benefits

- High spatial temporal resolution temperature and humidity soundings support accurate weather predictions
- Small size, low mass, and minimal cooling requirements can be accommodated aboard a small micro-satellite for a low cost, low risk approach
- Low fabrication and launch costs enable a low-earth orbit sun-synchronous sounding constellation that provides frequent refresh rates and wind observations
- 3D wind observations allow for significant cost reductions of short-term weather forecasts

Applications

- Airlines and air traffic control awareness
- Natural disaster preparation
- Search and rescue planning
- Tropospheric wind observations
- Rapid refresh temperature/ humidity profiling observations
- Secondary transport observations for aerosol, cloud, ocean, ecosystem, and primary NASA missions

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