

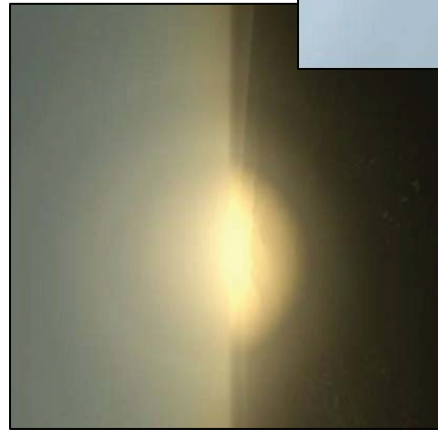


### Real-time Light Source Modeling

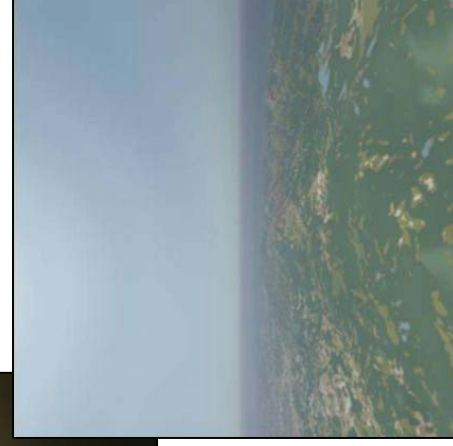
For any 3D location, time, date and atmosphere/weather condition, SigSimRT quickly provides all the natural source quantities necessary for accurate lighting, reflectance and thermal loading, including

- Solar position, direct/diffuse spectral irradiance
- Lunar position/phase, direct/diffuse spectral irradiance
- Stellar constellation positions and spectral irradiances
- Downwelling sky and cloud spectral irradiances
- Upwelling earthshine spectral irradiance

In addition, SigSimRT quickly provides the correct spectral radiance from man-made light sources, including tungsten, sodium, mercury, neon, and polychromatic lamps.

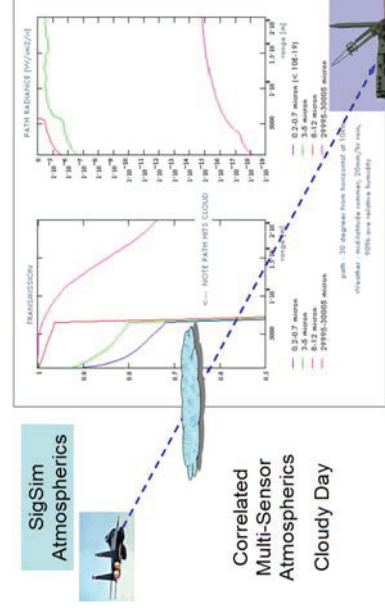
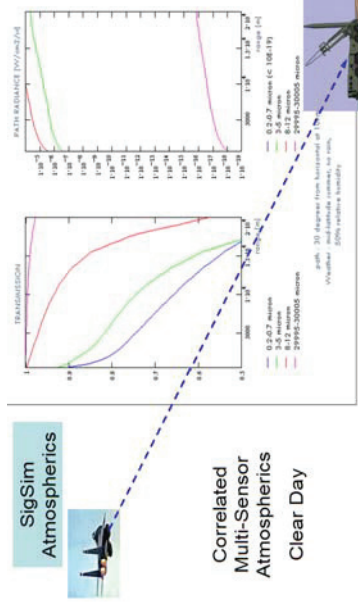


Real-time multiple scattering effects.



### Real-time EO/IR/RF Atmospheric

SigSimRT uses innovative, extremely-fast path-integral/transport algorithms based on Modtran & Radtran-atmospheric physics licensed from AFRL. These algorithms operate on a common atmospheric data model, allowing the user to assign such parameters as the pressure, temperature, molecular species concentrations and weather state at any position in the ellipsoidal atmospheric model.

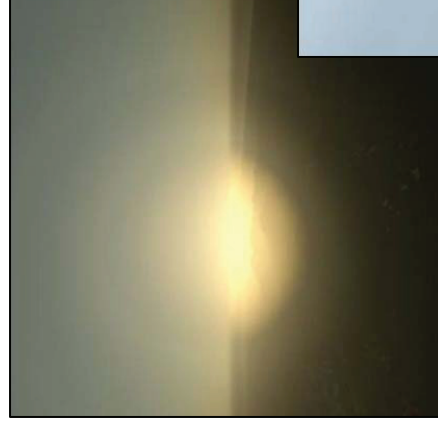


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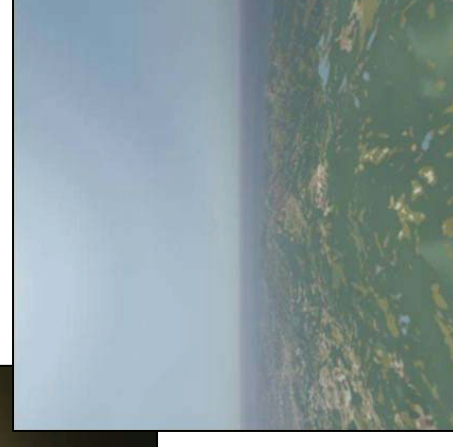
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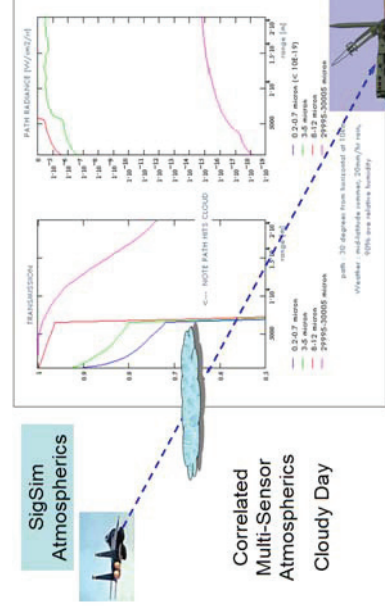
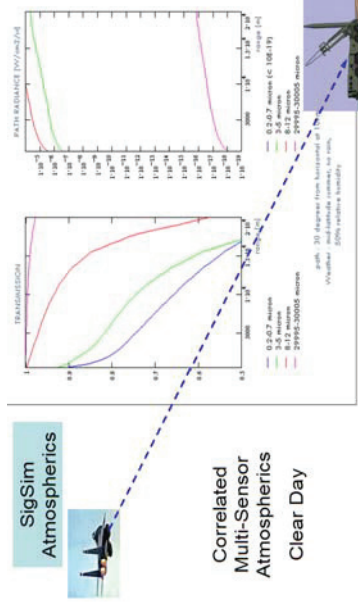


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