Thermal problem is one of the key issues for a stratospheric airship keeping on station. The time varying characteristics of solar radiation, earth albedo and infrared radiation are analyzed and a multi node heat dynamics model for a stratospheric airship is proposed in this article. This model can be used to simulate the day night heat dynamics behavior of the airship. The simulation results suggest that seasons, geographical latitude, and surround air speed can have significant influence on its day night heat dynamics behaviors.







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Heat Dynamics Behavior of a Stratospheric Airship in a Complex Thermal Environment at High Altitude Station **Keeping Conditions** 

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