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The Keystone Mission: Concept and Objectives

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The Keystone mission is one of four mission ideas selected for assessment study as a potential mission for ESA's Earth Explorer 12. It targets the observations of atomic oxygen, composition, temperature and wind in the mesosphere and lower thermosphere. The mission concept is currently being developed through an assessment study undertaken by a Mission Advisory Group (co-authors above) led by Daniel Gerber and supported by an ESA Core Team. The intent of this mission is to provide comprehensive observations (day/night) over a broad range of conditions. The processes involved in the energy and constituent balances can be specified and understood in more detail than currently possible. In this talk the mission concepts and objectives will be introduced along with a summary of the ESA mission selection process.

Keyword-1

Lower thermosphere

Keyword-2

Atomic oxygen

Keyword-3

Energy/constituent balances

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