



High altitude aerosols in the martian atmosphere.

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Using observations of PFS-MEX at limb in the atmosphere of Mars, we present a study of high altitude aerosols. Different kinds of limb orbits, at different latitudes and seasons show that the atmosphere of Mars presents occasionally aerosols only up to the 50-60 Km altitude. Often , however, aerosols are observed up to 120 -130 Km.

Orbit 44 is an example of the first type, while orbit 72 out and orbit 330 are examples of the second type.

To study the characteristics of the high altitude aerosols we have studied mostly the orbits tangent to different altitudes to the limb, so that the FOV never includes the Martian soil.

The results of the study are that at low altitude (0-50 Km) dust aerosols prevail, while at 50- 100 Km water ice aerosols are very frequent. Above 80 Km CO₂ ice is occasionally observed.

The main aim of this paper is to demonstrate that there are high altitude aerosols in the Martian atmosphere, also in periods far from the global dust storms.