



Observation of Glory from Space

Peter Israelevich (1), Joachim Joseph (1), Zev Levin (1), and Yoav Yair (2)

(1) Tel Aviv University, Department of Geophysics and Planetary Sciences, Tel Aviv, Israel (peter@luna.tau.ac.il, +972 3 640-9282), (2) Open University of Israel, Department of Life and Natural Sciences, Raanana, Israel

The glory is an atmospheric optical phenomenon that is observed as concentric colored circles around the antisolar point. It is produced by light backscattering by small water droplets. The pattern of the glory depends primarily on 1) the average diameter of the droplets, and 2) the width of their size distribution. These patterns can be successfully simulated and thus be used as a remote sensing tool for determining cloud droplets' size distributions. Here we report the first observation of the glory in visual and near infrared light made from space during the last flight of the space shuttle Columbia. The size distribution is determined for the water droplets above the cloud producing the glory.