

## Direct integrated use of Albedo data in Aratos Disaster Control management system.

ADC now includes a new service: Daily updates of Albedo (reflectance or optical brightness) as received from Eumetsat satellites. Surface albedo is defined as the ratio of radiation reflected to the radiation incident on a surface. The proportion reflected is not only determined by properties of the surface itself, but also by the spectral and angular distribution of solar radiation reaching the Earth's surface. Albedo values shown on ADC's map interface are measured on a scale from zero (corresponding to a black body that absorbs all incident radiation) to one (corresponding to a white body that reflects all incident radiation) over areas of 3 square kilometers.

Albedo is an important concept in climatology, astronomy, and environmental management (e.g., as part of the Leadership in Energy and Environmental Design (LEED) program for sustainable rating of buildings). The average albedo of the Earth at the top of the atmosphere, its *planetary albedo*, is 30 to 35% because of cloud cover, but widely varies locally across the surface because of different geological and environmental features.

Aratos Technologies has created the integrated system of natural disaster management Aratos Disaster Control (ADC). The system is designed for crisis management situations and is used as an ideal tool for depicting and monitoring hazards as well as assessing the damage after the crisis.

The system can detect the progress, almost in real time, as well as the history of past natural disasters (fires, earthquakes, landslides, etc.) for the user's area of interest and present the data in an interactive geographical map (GIS), 24x7.

ADC consists of an amalgam of various technologies such as satellite images and data as well as GNSS signals (Global Navigation Satellite System), which are combined in an integrated architecture, and delivers processed, meaningful information to the user and alerts via sms and emails.

## We continue to innovate in space technologies since 2005.

For more info visit www.aratos.gr and www.aratosdisastercotrol.com.







