5. SPACE METEOROLOGY.

The activities of the ***Slovak Hydrometeorological Institute, Malý Javorník Observatory***, are oriented on the satellite information applications for flood forecasting and monitoring support.
In the framework of the cooperation with the EUMETSAT organization, Slovak Hydrometeorological Institute has started the preparation works on the project aimed on the utilization of satellite data in the hydrological warning service. A working group was established from the representatives of the EUMETSAT cooperating and member states. The Working Group has to fulfill following tasks in the near future:

- evaluate the current status of satellite data usage in the operational hydrological service of the countries involved in the project,
- exactly define the scope of the on-coming project, which result would have to support the flood forecasting and monitoring using the data from meteorological satellites with the respect to common needs of both cooperating and member countries of EUMETSAT,
- determine a list of resulting products of the on-coming project, define, plan and schedule all research and development works.

Participating institutions of the Working Group:

- EUMETSAT (administrative and scientific support of the 4 member countries (Germany, France, Switzerland and Italy),
- Meteorological and Hydrological Service of Croatia (project member),
- Hungarian Meteorological Service (project member),
- Slovak Hydrometeorological Institute (project member),
- Polish Institute of Meteorology and Water Management (project member).

The project will belong to the SAF (Satellite Application Facility) group of projects. The overall aim of the SAF projects is a better utilization of the satellite data in various meteorological and hydrological applications and research. Benefits of the proposed project will be in the area of atmosphere and hydrosphere studies with the utilization of satellite measurements and the satellite data assimilation in hydrology, in the development and enhancement of the hydrological models and procedures used in the forecasting and monitoring of dangerous flood events (see Figure 10).

EUMETSAT will provide organization works in the project. The funding will be mainly also provided by the EUMETSAT with the contributions of all participating countries.

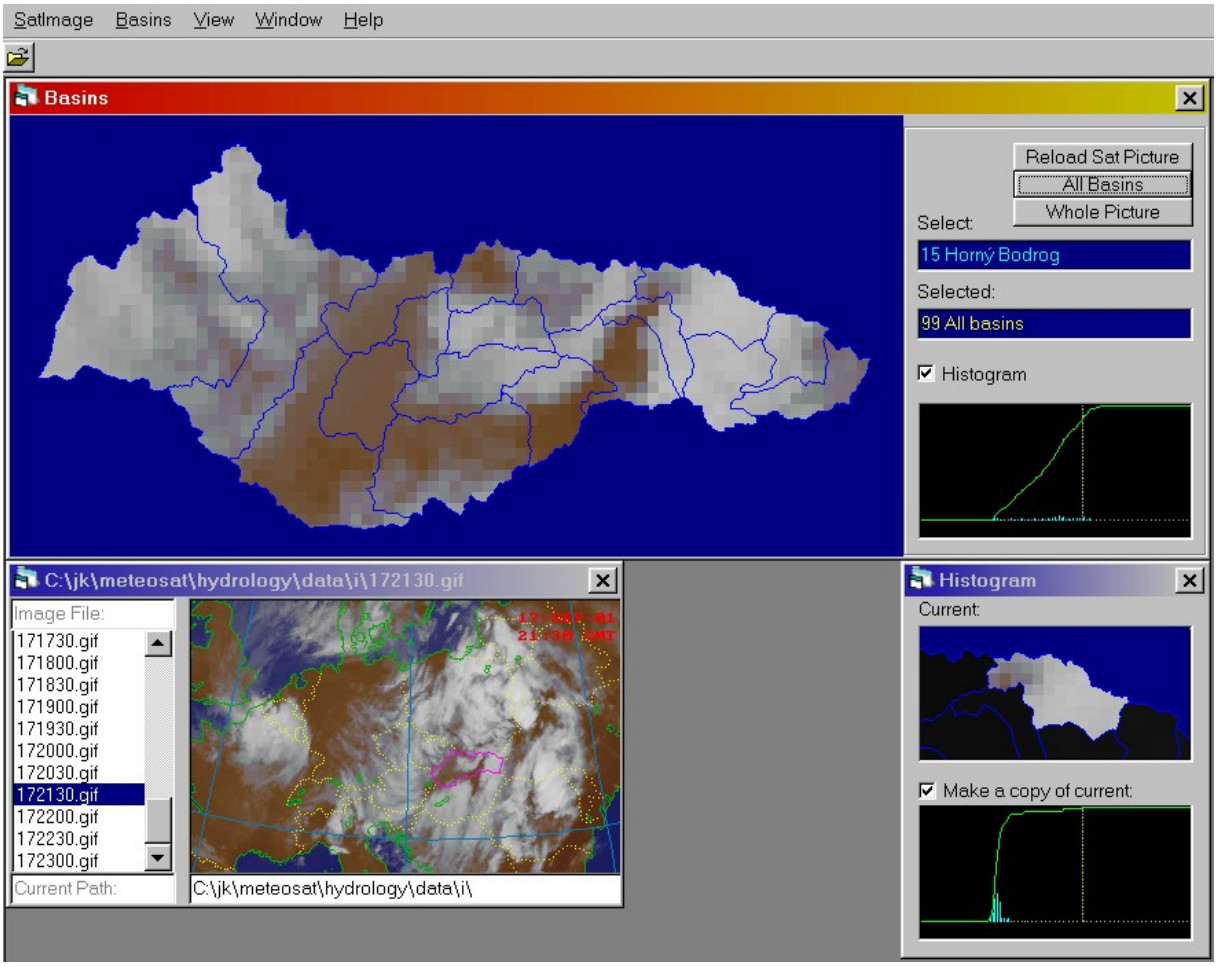

Fig. 10. Basin – example. Figure shows the simple tool for the estimation the river basins cloud coverage. Infrared image from the satellite Meteosat 7, the 17th September 2001 was transformed to the map of river basins. Histograms (on the right) show the gradual IR temperatures distribution over the whole diplayed region (upper), and the sharp distribution of low IR temperatures over the river Horný Bodrog basin (below).