

The aim of this thesis is to find method for flood monitoring from radar images. The thesis deals with flood in general and with organization of flood protection. There are described principles of radar sensors. There is also summary of satellites with their parameters. Next part of the thesis describes interaction between radar beam and different types of surface. Theoretical part is closed by overview of the existing methods for flood monitoring.

In the practical part there is method for flood monitoring applied to areas affected by flood. The process is based on the classification of the radar image. Using classification and digital elevation model is drawn boundary of flooded area.

The result boundaries are compared with the existing maximal flooded areas.